CATALOGUE OF GOOD URBAN PRACTICES WITHIN THE FRAMEWORK OF GOALS OF THE SPANISH URBAN AGENDA

STUDY AND ANALYSIS OF INTEGRATED URBAN EXPERIENCES

AGENDA URBANA ESPAÑOLA

Universidad de Navarra

GOBIERNO DE ESPAÑA
MINISTERIO DE VIVIENDA Y AGENDA URBANA

CATALOGUE OF GOOD URBAN PRACTICES WITHIN THE FRAMEWORK OF GOALS OF THE SPANISH URBAN AGENDA

STUDY AND ANALYSIS OF INTEGRATED URBAN EXPERIENCES

AGENDA URBANA ESPAÑOLA

Universidad de Navarra

GOBIERNO DE ESPAÑA
MINISTERIO DE VIVIENDA Y AGENDA URBANA

TABLE OF CONTENTS

General catalogue of official publications:
https://cpage.mpr.gob.es

Virtual publications office of the Ministry of Transport and Sustainable Mobility:
https://publicaciones.transportes.gob.es/

Issued by:

Technical General Secretariat
Publications Office

NIPO 179-24-023-1 [online]

PRESENTATION

On February 22, 2019, the Council of Ministers considered the Spanish Urban Agenda (AUE by its Spanish acronym), and made it a National Urban Policy to tackle the objectives –which have already been recognised by other international urban agendas– of sustainable urban development in its environmental, social and economic dimensions in a strategic and cross-cutting manner. As the official website of the Agenda states, it is also a new working method that shows us “the path toward more liveable towns and cities” and is committed to improving governance, with greater citizen participation and training, dissemination and exchange of knowledge as key tools to facilitate its implementation.

The guide or catalogue of projects, actions and **good urban practices** that the reader is currently looking at goes in this direction and responds to action 5.4 of the AUE Action Plan for the General State Administration, which is intended to inform and train technicians, politicians and citizens through good practices that are integrated and make a decisive contribution to the pursuit of more sustainable urban development, despite their different objectives and contexts.

A total of 66 urban experiences have been systematically identified and presented in this work (six of them typical traditional examples of integrated urban actions). These experiences are aimed at **creating knowledge** on existing examples of plans, actions and projects that have been successfully implemented in towns and cities in Spain and that are fully in line with the strategic goals promoted by the AUE.

In general, our urban areas reflect an urban model that has undoubtedly positive values such as reasonable density and compactness, a mix of uses, safe, connected urban spaces, architecture of high quality, protected historical and cultural values, and many more. Therefore, it is not surprising to find urban practices and experiences that are excellent examples of how things can be done well, where this correction can be seen as a connection and alignment of these with the sustainability objectives called for by international agendas and, in this case, by the Spanish Urban Agenda.

This catalogue brings together a good number of experiences, with the primary objective of disseminating knowledge among all the actors involved in urban issues and who, therefore, are considered to be key players in the process of implementing the AUE. Think of public administrations, especially at a local level, the professional sector and universities, and citizens as a whole. The catalogue also translates many of the inspiring proposals that describe the lines of action in the AUE into real examples that have been put into practice, providing them with the practical content that makes them easy to consult and transfer to other contexts and regions.

Hopefully, this will be the start of another work proposal in the exciting joint process that we began with the approval of the AUE to make plans, projects and specific actions in line with its objectives and methodology more visible, and which will help to shape cross-cutting, integrated and, logically, more **global action** and implementation plans.

Director General of Urban Agenda and Architecture
Iñaqui Carnicero Alonso-Colmenares

AUTHORS

Elena Lacilla Larrodé, PhD in Architecture. Associate Professor of Urban Planning at the School of Architecture of the University of Navarre.
Management and coordination.

José Ramón Bergasa Pascual, PhD in Architecture from the University of Navarre; Master's Degree in Urban Planning and Territorial Studies (Menéndez Pelayo International University) and Town Planning (National Institute for Public Administration).
Lead collaborator.

Javier Zulategui Beñarán, Biologist, PhD from the School of Architecture of the University of Navarre.
Collaborator

Collaborating students
Leire Amegide Lizoain
Alba Cabezón Labarga
Beatriz Oteiza Gutiérrez

Universidad de Navarra

FOREWORD

Strategic planning is inherent to human beings and has traditionally allowed them to predict the effects and consequences that certain current or planned actions will have in the future. In that respect, this condition also carries over into the way we look at cities, which has been enhanced since the 1980s through more strategic planning when it comes to taking action in our towns and cities. Moreover, it has been intensified by the role played by international agendas, such as the 2030 Agenda for Sustainable Development, whose cross-cutting and strategic vision for development was at its peak with its approval in September 2015. It is in this global strategic framework and in the framework of other international urban agendas that the **Spanish Urban Agenda** was drawn up as a pioneering document that transfers global objectives to a national level.

In this context, the Department of Theory, Projects and Urban Planning of the School of Architecture of the **University of Navarre** has been working with the Spanish Urban Agenda since 2019 to make sure that its methodology and the international framework it implements are the most suitable for contextualising workshops and projects in the academic curriculum.

This **research project**, the main objective of which is to study real cases inspired by the same principles as the Agenda, is part of this pedagogical work. To this end, a set of good practices that have been completed or are in the development phase are identified, described and classified. As far as possible, these may be formulas that can be replicated in other areas in a national or international context.

This research project was known to the Ministry and, as part of Strategic Goal 10.4 of the Agenda, which is committed to training and knowledge exchange, a proposal was made to expand the initial pedagogical focus of the project to turn it into a complete **Catalogue of good practices**, which, in line with the strategic goals of the AUE, could be transferred to other municipalities, inspire decision-making or simply be the seed of a fluid and open exchange of experiences from which everyone, in all areas, could draw inspiration. Consequently, the project has become a useful tool for local authorities in developing their own action plans, as it includes real examples of actions, projects, experiences and good practices that have been successfully implemented in our towns and cities.

Our sincere thanks to those responsible for the experiences whom we were able to contact and whose contributions or suggestions helped to improve the work, and to the editors and authors, who are the lecturers and students who made it possible. We would like to thank them all for their hard work, commitment and interest. Thanks are also extended to the Sub-Directorate General for Urban Policies of the Ministry of Transport, Mobility and Urban Agenda for their support and their belief in the scope of this project.

As with any work of a similar nature, the content of this Catalogue is subject to any modification, proposal or correction of errors that may be considered necessary. If you have any comments in this regard, please write to: politicasurbanas.aue@mitma.es.

INTRODUCTION

INTRODUCTION

STRATEGIC PLANNING IN CITIES

Strategic thinking is one of the innate qualities of human beings that has traditionally allowed them to predict the effects and consequences that certain current or planned actions will have in the future. Planning these actions in itself involves a complex process that starts with a diagnosis of needs and opportunities, identifying the actions to be carried out and assessing as many variables as possible in order to achieve the desired objectives efficiently and effectively.

Although this type of planning has traditionally been used in fields as diverse as the art of war or the business sector, 2021 marks 40 years since it was used, in an innovative way, as a formula for "rethinking" a city in a context of economic recession. This was the approval of the Strategic Plan for the city of San Francisco.

Since then, the way we look at cities and human settlements in general has changed substantially. The challenges facing our towns, **cities** and regions have acquired a global component that transcends the merely economic to include others of extreme importance, such as the effects of climate change, social inequalities, immigration, global health risks, those linked to technologies, etc. Due to its very complexity, all of this undoubtedly requires a strategic vision which must also be combined with a cross-cutting perspective that makes it possible to tackle new global challenges in an integrated, coherent and flexible manner.

INTERNATIONAL URBAN AGENDAS

In this context, international urban agendas take up the experience acquired over the years and provide a new common, universal language, a new semantics and **methodology** that starts from a global context and gradually takes shape in the form of strategic plans at a local level, based on the specific characteristics of each town and city.

Against this backdrop, the cross-cutting strategic vision of sustainable development reached its peak with the adoption of the Agenda for Sustainable Development, or 2030 **Agenda**, in September 2015. The identification of 17 comprehensive goals, linked by targets and setting up a system of monitoring and evaluation indicators, elevated the international framework for strategic planning, while at the same time eliciting a commitment by states to achieving them.

The United Nations predicts that, within twenty years, two thirds of the world's population will be urban, so the role of urban areas –cities due to their population density, but also rural areas due to their intimate relationship with the region– and their perspective as active players in adopting public policies, is essential when it comes to tackling global challenges and achieving the Sustainable Development Goals. Therefore, it goes without saying that most of the 169 targets of the SDGs have a strong urban component, in addition to the fundamental role of SDG 11, which aims to make "cities and human settlements inclusive, safe, resilient, and sustainable", and SDG 17, which states that none of this will be possible without the creation of partnerships.

Specifically for the purpose of implementing it and as a catalysing instrument, during the Habitat III Conference on Human Settlements in October 2016, the United Nations approved the **New International Urban Agenda**, which literally states that the way cities and urban settlements are planned, financed, developed, administered and managed needs to be reoriented, recognising that sustainable urban and spatial development is an indispensable element in achieving sustainable development and prosperity for all.

In the same vein, but at a regional and supranational level, the European Union agreed to provide itself with its own Urban Agenda when it signed the Amsterdam Declaration in May 2016. And something similar also occurred in other regions of the planet, for example the Regional Action Plan to implement the New Urban Agenda in Latin America and the Caribbean, 2016-2036. All these documents add the specificities of each of their territories to the overview, but, in our opinion, their greatest potential lies in using the same language in the strategic and cross-cutting vision that the 2030 Agenda sets out and that other international documents outline.

THE SPANISH URBAN AGENDA

In this global strategic framework, **National Urban Policies** take on a fundamental role in transmitting global objectives to each country and, in this respect, Spain has been a pioneer in approving its own National Urban Policy on 22 February 2019, called: the Spanish Urban Agenda, which aims to provide a support framework for drawing up strategies and actions for the fair, equitable and sustainable development of towns and cities.

As a strategic document, the Spanish Urban Agenda is based on a **diagnosis** that provides an objective analysis of the country's urban reality, identifying the most varied issues that affect the main problems that endanger the sustainability of the Spanish development model from an eminently urban perspective. On this basis, the central element of the Agenda is its strategic framework of 10 objectives which, as a result of the consensus of the participatory process to which it was subjected during its preparation, covers the link between towns and cities and their environment, their relationship with the effects linked to climate change, the social and cultural component of the environments and their economic development component, ranging from the general to the specific.

To all of this must be added a **new formula for governance**, in which coordination between administrations, citizen participation and the exchange of knowledge are absolutely essential.

Furthermore, the Agenda has a system of **indicators** in two sections: firstly, there are descriptive indicators, which are useful for making a diagnosis of the situation, and secondly, there are evaluation and monitoring indicators, which are the most important when it comes to assessing the degree of effective implementation of the Agenda.

But the great value of the Agenda, and what makes it a practical and dynamic document, is its simple and flexible methodology, which uses a common language and is based on the global and strategic framework mentioned above, thereby making it easier for all kinds of local bodies and other actors with the ability to influence the territory to draw up action plans: universities, the professional sector, civil society, etc. Furthermore, the Urban Agenda, in its role as a national policy, includes a specific Action Plan for the General State Administration (GSA).

In our opinion, formulas and actions that end up having an impact on the urban landscape in one way or another, are being defined and guided by the different levels of international strategic planning.

Fig. 1. 2030 Agenda. Sustainable Development Goals.

Fig. 2. Sustainable Development Goals.

The 17 Sustainable Development Goals (SDGs) are:

(1) Eradicate poverty in all its forms and for all.

(2) End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

(3) Ensure healthy lives and promote well-being for everyone at all ages.

(4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

(5) Achieve gender equality and empower all women and girls

(6) Ensure the availability and sustainable management of water.

(7) Ensure access to affordable, reliable, sustainable, and modern energy for everyone.

(8) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

(9) Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

(10) Reduce income inequality within and among countries.

(11) Make cities and human settlements inclusive, safe, resilient, and sustainable.

(12) Ensure sustainable consumption and production patterns.

(13) Take urgent action to combat climate change and its impacts

(14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

(15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

(16) Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

(17) Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Fig. 3. Spanish Urban Agendas's logo.

The Spanish Urban Agenda, which was adopted by the Council of Ministers on February 22, 2019, is the roadmap that will set out the strategy and actions to be carried out up to 2030, to make our towns and cities friendly, welcoming, healthy and conscientious places in which to live together. It is a real 'à la carte menu' for all of the public and private actors, who operate in cities and who are looking for equitable, fair and sustainable development in their different fields of action, to draw up their own Action Plans.

The strategic goals of the Spanish Urban Agenda include issues such as focus on territory, urban regeneration, resilience to climate change, circular economy, sustainable mobility, social cohesion, urban economy, access to housing, digital innovation and governance. They are made up of 30 specific objectives that help to further detail the strategic goals and proposals for concrete actions to achieve them through the lines of action which provide 'ideas' on how to achieve the different objectives by way of examples, criteria or references. Following the recommendations of other agendas, the proposed actions may include policy, planning, funding, improving governance, training and knowledge exchange.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT
1.1 Plan land use in a way that is compatible with its territorial environment.
1.2 Preserve and improve natural and cultural heritage and protect the landscape.
1.3 Improve green and blue infrastructures and link them to the natural context.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY
2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.
2.2 Ensure functional complexity and diversity of uses.
2.3 Improve the overall quality and accessibility of public spaces.
2.4 Improve the urban environment and reduce pollution.
2.5Promote urban regeneration.
2.6 Improve the quality and sustainability of buildings.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE
3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.
3.2 Reduce greenhouse gas emissions.
3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY
4.1 Be more energy efficient and save energy.
4.2 Optimise and reduce water consumption.
4.3. Promote material cycles.
4.4. Reduce waste and promote its recycling.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY
5.1 Promote cities of proximity.
5.2 Promote sustainable means of transport.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY
6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.
6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY
7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.
7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG8 GUARANTEE ACCESS TO HOUSING
8.1 Promote the existence of suitable affordable housing stock.
8.2 Ensure access to housing, particularly for the most vulnerable groups.

OE9 LEAD AND PROMOTE DIGITAL INNOVATION
9.1 Promote the knowledge society and make progress towards developing smart cities.
9.2 Promote e-government and bridge the digital divide.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE
10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.
10.2 Ensure citizen participation and transparency and promote multilevel governance.
10.3 Promote local training and improve funding.
10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

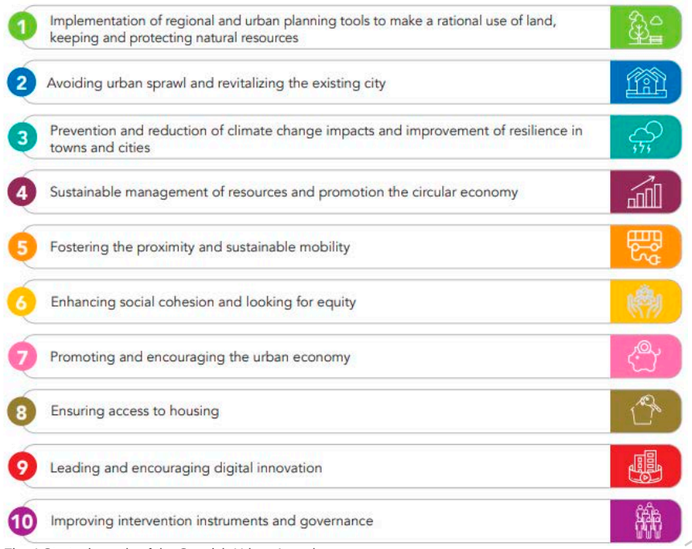


Fig. 4 Strategic goals of the Spanish Urban Agenda.

METHODOLOGY

GOOD LOCAL PRACTICES IN THE FRAMEWORK OF URBAN AGENDAS

As has been explained, Urban Agendas are the 'logical', or at least consistent, evolution of two fundamental considerations: firstly, the need for towns and cities to respond to new **global challenges** for which traditional action mechanisms –both in the city and in the region– have significant limitations and frameworks that have been largely superseded and, secondly, the the more or less proven experience of applying a methodology that is committed to strategic planning in an 'urban or rural' environment, which has traditionally been alien to it, but in which it can provide many advantages, particularly at a time of permanent change and adaptation.

However, although the **strategic planning** approach advocated by Urban Agendas is based on drawing up Local Action Plans with a 'strategic', cross-cutting vision of urban areas (whether urban or rural), the fact is that, within this planning, the aim is that the projects, programmes and specific actions identified as 'instruments' for achieving each strategic goal should also be as integrated as possible.

It is in this context that research work consisting of identifying, describing and classifying a set of good practices that have been completed or are in the development phase and that can provide formulas that can be replicated in other territories has been carried out, with the pedagogical objective of showing real examples inspired by the same principles as those in the Spanish Urban Agenda. This also takes into account their capacity to contribute towards improving the quality of life in the city, improving its environment, its architectural and urban quality and value, its uniqueness and social, environmental and/or economic impact, its territorial diversity, and any other aspect considered important and in line with the objectives of the AUE, such as governance and citizen participation.

METHODOLOGY OF THE STUDY

The research study was carried out in two clearly differentiated phases: firstly, **60 case studies** were identified which, due to their characteristics, were considered to be good practices that were sufficiently representative of the specific goals of the Spanish Urban Agenda. Consequently, although the good practices had to be cross-cutting in nature and able to address a number of specific objectives, those that clearly and obviously addressed one of them were chosen. As a result, 2 examples were obtained for each specific objective. Secondly, once these good practices had been identified, research was carried out using primary and secondary sources to gather and classify the information obtained from each of these examples and organise it in files according to certain parameters.

A **matrix** was created to help identify good practices, showing a list in order of the specific objectives by the colours of these objectives, and examples were identified on that basis. The selection also took into consideration the fact that practices should be spread as evenly as possible across the entire country. These examples also identified whether the administration promoting the action was local, provincial or for the autonomous community, and whether the action had been completed or was in the execution phase. Finally, in addition to these 60 cases, six other actions were added which, due to the time they had been in existence and their acknowledged importance, could not be omitted.

As far as the search for information was concerned, it was classified based on the overall data (actors, dates, surface area, budget, recognition received and sources consulted) and their characteristics (objectives, results, background, description and, where appropriate, implementation procedure). Moreover, information was obtained on the technical and material resources for the strategy, how they were implemented and the regulations applied. Finally, a number of conclusions were drawn from each of these good practices, classified by: l**essons learned, governance and transferability and sustainability**, as well as a series of graphic information to represent each intervention with plans and images, as the case may be.

Once the files had been compiled with all the information collected, an overall review was carried out to compare, organise and hierarchically rank the examples, replacing all those that were recurrent in or inconsistent with the catalogue as a whole.

DATA

LOCATION
Municipality, Province, Autonomous Community.

ACTORS
· City/Town Council.
· Directorate General.
· Provincial Ministry.
· Autonomous Community.
· Ministry.
· Professional body.
· Company.
· Others.

DATES
·start date of the project
· end date of the project

AREA OF ACTION
Scope of action.

SOURCES
Primary and secondary sources. Website.

RECOGNITION
Awards and Mentions.

PHASE
Phase of development when the catalogue was prepared: 2021.

MATRIX

No.	Page	Name of Good Practice	Municipality	Province	Auton. Comm.	1.1 Plan land use in a way that is compatible with its territorial environment.	1.2 Preserve and improve natural and cultural heritage and protect the landscape.	1.3 Improve green and blue infrastructures and link them to the natural context.	2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.	2.2 Ensure functional complexity and diversity of uses	2.3 Improve the overall quality and accessibility of public spaces.	2.4 Improve the urban environment and reduce pollution.	2.5 Promote urban regeneration.	2.6 Improve the quality and sustainability of buildings.	3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.	3.2 Reduce greenhouse gas emissions.	3.3 Improve resilience to climate change.	4.1 Be more energy efficient and save energy.	4.2 Optimise and reduce water consumption.	4.3 Promote material cycles.	4.4 Reduce waste and promote its recycling.	5.1 Promote cities of proximity.	5.2 Promote sustainable means of transport.	6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.	6.2 Strive for equal opportunities from a perspective of gender, age and capability.	7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.	7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.	8.1 Promote the existence of suitable affordable housing stock.	8.2 Ensure access to housing, particularly for the most vulnerable groups.	9.1 Promote the knowledge society and make progress towards developing smart cities.	9.2 Promote e-government and bridge the digital divide.	10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.	10.2 Ensure citizen participation and transparency and promote multi-level governance.	10.3 Promote local training and improve funding.	10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.
01	026	Menorca: Biosphere Reserve	Menorca	Menorca	Islas Baleares	●	●	●							●	●	●	●	●	●	●	●	●													
02	030	Coastal Management Plan for Galicia	Various	Various	Galicia	●	●	●					●		●		●															●	●		
03	034	Actions along the Way of St. James (1.5% Cultural)	Various	Various	Spain		●				●		●	●														●							
04	038	Historic-Artistic Site	Alcalá del Júcar	Albacete	Castilla-La Mancha		●						●																			●			
05	042	Capital of the Biosphere Reserve, Waterways.	Arrecife	Lanzarote	Canary Islands	●	●	●							●	●	●	●	●	●	●												●		●
06	046	Urban Pathways: all shades of green	Gandía	Valencia	Valencian Comm.	●		●	●		●				●	●	●					●				●	●								
07	052	Madrid Nuevo Norte. Operación Chamartín	Madrid	Madrid	Madrid	●			●	●	●	●	●	●				●					●			●									
08	056	Green city block in Malaga	Málaga	Málaga	Andalusia				●	●	●	●	●	●		●							●												
09	060	Action in the Hospital neighbourhood	Oviedo	Asturias	Asturias				●	●	●	●	●	●		●		●																	
10	064	El Partidor: Urban Regeneration and Citizen Participation	Alcoy	Alicante	Valencian Comm.				●	●		●	●	●				●														●	●		
11	068	Accessibility plan for the historic complex	J. de los Caballeros	Badajoz	Extremadura						●	●	●	●									●			●									
12	072	Accessibility plan	Castellón	Castellón	Valencian Comm.				●		●	●											●	●											●
13	076	Urban greenup	Valladolid	Valladolid	Castile and León					●		●	●			●	●	●					●	●										●	●
14	080	Urban Forest Innovation Lab	Cuenca	Cuenca	Castilla-La Mancha							●				●	●	●			●	●	●			●	●							●	
15	084	Sestao Berri. Urban Regeneration	Sestao	Vizcaya	Basque Country				●	●	●	●	●	●																●	●				
16	088	Urban regeneration in the San Cristobal neighbourhood	Burgos	Burgos	Castile and León	●				●		●	●	●				●					●	●	●										
17	092	Kairós Project	Mula	Murcia	Murcia		●		●		●		●	●											●	●							●	●	●
18	096	Restoration of the former abattoir	Madrid	Madrid	Madrid		●		●	●			●	●														●							●
19	102	Climate change adaptation plan	Gavá	Barcelona	Catalonia										●	●	●	●	●	●	●														
20	106	Life Baetulo Project. Climate change warning system	Badalona	Barcelona	Catalonia	●									●		●	●																	●
21	110	Alicia Climate Plan	Malaga	Malaga	Andalusia	●	●	●	●	●		●	●		●	●	●	●	●			●	●											●
22	114	Metropolitan low emission zones	Barcelona	Barcelona	Catalonia							●			●	●	●					●	●											●	●
23	118	Tormes+	Salamanca	Salamanca	Castile and León			●			●	●			●	●	●					●													
24	122	Ebro Resilience	Alfaro	La Rioja	La Rioja	●	●	●							●		●																	●	●
25	128	Zero-emission buildings	Pamplona	Navarre	Navarre										●	●	●	●				●												●	●
26	132	GreenS Project. Support for sustainable public procurement	Cádiz Prov.	Cádiz	Andalusia							●						●	●	●	●													●	
27	136	Sustainable Storm Water Management Guidelines	Madrid	Madrid	Madrid												●		●																
28	140	Strategic Plan: Sustainable Public Management	Seville	Seville	Andalusia		●					●			●	●	●	●	●	●	●														
29	144	Reciclos	Various	Various	Spain															●	●			●											
30	148	Rural energy community	Castilfrío de Sierra	Soria	Castile and León	●	●	●							●	●	●	●	●	●	●													●	●
31	152	Circular Economy	Various	Various	Castilla-La Mancha										●			●	●	●	●														
32	156	Circular bioeconomy for organic waste	Mun.of Sangüesa	Navarre	Navarre													●	●	●	●					●	●								
33	162	Vertical transportation plan	Santander	Cantabria	Cantabria						●	●				●						●	●												
34	166	Superblocks	Barcelona	Barcelona	Catalonia				●	●	●	●	●	●	●	●						●	●											●	●	
35	170	Open streets	Logroño	La Rioja	La Rioja						●	●										●	●												
36	174	Pontevedra Ágora	Pontevedra Prov.	Pontevedra	Galicia				●	●	●	●			●	●	●					●	●											●	●
37	180	Youth housing plan	La Rinconada	Seville	Andalusia																			●	●			●	●						
38	184	ERACIS. Strategy for social inclusion and cohesion	Various	Various	Andalusia								●	●										●	●	●	●	●	●						
39	188	Age-friendly city	Ermua	Vizcaya	Basque Country																			●	●			●	●				●	●	●
40	192	Gender perspective in the urban process	Various	Various	Valencian Comm.				●	●	●	●	●	●									●	●	●			●	●				●	●	●
41	198	Proximity food strategy	Valladolid	Valladolid	Castile and León		●		●	●	●	●	●	●												●	●								
42	202	Restoration of Canfranc station	Canfranc	Huesca	Aragon		●						●	●									●			●	●						●		
43	206	Restoration of the village of Ruesta	Ruesta	Zaragoza	Aragon		●						●													●	●	●	●						
44	210	Smart tourism destinations network	Various	Various	Spain																					●	●	●	●			●	●	●	
45	216	REHABITARE Programme	Various	Various	Castile and León								●					●								●			●	●					
46	220	Access to housing in the historic city of Toledo	Toledo	Toledo	Castilla-La Mancha								●	●								●				●			●	●				●	
47	224	Can Fabra. Housing for young people. NEW BAUHAUS	Barcelona	Barcelona	Catalonia					●	●			●															●	●					
48	228	Action in Santa Adela neighbourhood	Granada	Granada	Andalusia				●	●			●	●												●	●		●	●					
49	234	Missions Valencia Project / Las Naves, Valencia	Valencia	Valencia	Valencian Comm.					●			●	●												●	●	●		●					
50	238	City of knowledge	Zaragoza	Zaragoza	Aragon																					●				●	●			●	●
51	242	Smart village	Ansó	Huesca	Aragon						●											●				●	●			●	●				
52	246	Rivas smart city	Rivas Vaciamadrid	Madrid	Madrid							●					●	●	●	●	●									●	●				
53	252	Spatial Planning Guidelines for the Basque Country	Various	Various	Basque Country	●			●																							●	●	●	●
54	256	LOTUS: Law on sustainable spatial and urban planning	Various	Extremadura	Extremadura	●			●															●	●							●	●	●	●
55	260	Murcia Urban DNA	Murcia	Murcia	Murcia																			●								●	●	●	●
56	264	Alto Tajo Community of Municipalities Action Plan	7 municipalities	Guadalajara Cuenca	Castilla-La Mancha				●						●									●	●							●	●	●	●
57	268	Recovery, Transformation and Resilience Plan	Various	Various	Spain	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
58	272	Atlantic Axis, cross-border: Spain-Portugal	Various	Various	Spain	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
59	276	Pamplona Urban Observatory	Pamplona	Navarre	Navarre																				●							●		●	
60	280	ESenRED, Urban Agenda for Schools	Various	Various	Spain		●					●			●	●	●	●	●	●	●				●								●		●
A	286	Vitoria green belt	Vitoria	Vitoria	Basque Country	●	●	●	●	●	●	●					●			●	●													●
B	290	22@ Barcelona Programme	Barcelona	Barcelona	Catalonia				●	●	●		●	●				●								●				●	●				
C	294	Bilbao Ría 2000	Bilbao	Vizcaya	Basque Country	●		●		●		●	●	●			●									●	●								
D	298	Madrid Río Plan	Madrid	Madrid	Madrid	●		●	●	●	●	●			●			●																	
E	302	Urban regeneration actions	S. Coloma Gramanet	Barcelona	Catalonia				●			●	●	●		●		●							●								●	●	
F	306	Restoration of the historic centre	Santiago Compostela	Segovia	Galicia				●	●	●			●															●						

SPAIN

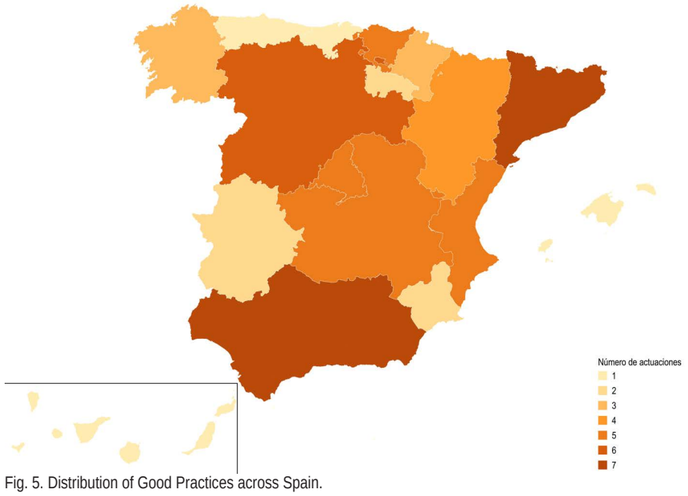


Fig. 5. Distribution of Good Practices across Spain.

ANDALUSIA.....7
(08) Green city block in Malaga.
(21) Alicia Climate Plan in Malaga.
(26) GreenS Project, sustainable public procurement.
(28) Strategic plan: sustainable public management.
(37) Youth housing plan.
(38) ERACIS: Strategy for social inclusion and cohesion.
(48) Action in Santa Adela neighbourhood, Granada.

ARAGON.....4
42) Restoration of Canfranc station.
(43) Restoration of the village of Ruesta (Zaragoza).
(50) City of knowledge.
(51) Smart village (Ansó).

ASTURIAS.....1
(09) Action in the Hospital neighbourhood, Oviedo.

VALENCIAN COMMUNITY.....5
(06) Urban Pathways: all shades of green.
(10) El Partidor: urban regeneration action.
(12) Accessibility plan for Castellón.
(40) Gender perspective in the urban process.
(49) Missions Project, Las Naves, Valencia.

CANTABRIA.....1
(33) Vertical transportation plan.

CASTILLA-LA MANCHA.....5
(04) Historic-Artistic Site, Alcalá del Júcar.
(14) Urban Forest Innovation Lab.
(31) Circular Economy in Castilla-La Mancha.
(46) Access to housing in the historic city of Toledo.
(56) Alto Tajo Community of Municipalities Action Plan.

CASTILE AND LEÓN.....6
13) Urban GreenUP in Valladolid.
(16) Urban regeneration in the S. Cristobal neighbourhood.
(23) Tormes+ in Salamanca.
(30) Rural energy community.
(41) Proximity food strategy, Valladolid.
(45) REHABITARE Programme

CATALONIA.....7
(19) Climate change adaptation plan in Gavá.
(20) Life Baetulo Project in Badalona.
(22) Low emissions zones in Barcelona.
(34) Superblocks in Barcelona.
(47) Can Fabra. Housing for young people. NEW BAUHAUS.
(B) 22@ Barcelona Programme.

EXTREMADURA.....2
(11) Accessibility Plan for Jerez de los Caballeros.
(54) Law on sustainable spatial and urban planning.

GALICIA.....3
02) Coastal Management Plan for Galicia.
(36) Pontevedra Agora in Pontevedra.
(E) Restoration of the Old Town in Santiago de Compostela.

CANARY ISLANDS.....1
(05) Arrecife.Capital of the Biosphere Reserve.

BALEARIC ISLANDS.....1
(01) Menorca: Biosphere Reserve.

LA RIOJA.....2
(24) Ebro Resilience in Alfaro.
(35) Open streets in Logroño.

MADRID.....5
(07) Madrid Nuevo Norte (Operación Chamartín).
(18) Restoration of the former abattoir in Madrid.
(27) Sustainable Storm Water Management Guidelines.
(52) Rivas smart city.
(E) Madrid Río Plan.

MURCIA.....2
(17) Kairós Project for the town of Mula.
(55) Murcia Urban DNA.

NAVARRE.....3
(25) Zero-emission buildings in Pamplona.
(32) Circular bioeconomy for organic waste.
(59) Pamplona Urban Observatory.

BASQUE COUNTRY.....5
(15) Sestao Berri. Urban Regeneration
(39) Age-friendly city.
(53) Spatial Planning Guidelines for the Basque Country.
(A) Vitoria green belt.
(C) Bilbao Ría 2000.

SPAIN.....6
(03) Actions along the Way of St. James (1.5%).
(29) Reciclos.
(44) Smart tourism destinations network.
(57) Recovery, Transformation and Resilience Plan.
(58) Atlantic Axis, cross-border: Spain-Portugal.
(60) ESenRED, Urban Agenda for Schools.

GOOD PRACTICES

IDENTIFICATION AND CLASSIFICATION OF GOOD PRACTICES

In order to understand the thematic scope of the catalogue, some of the sixty examples analysed are mentioned below, covering a wide range of fields. The experiences include proposals such as the Network of Schools for Sustainability (ESenRED), which seeks to introduce the Urban Agenda to the youngest children by means of the Urban Agendas for Schools, together with more specific actions, but with a great impact on small municipalities, such as the Restoration Plan for the village of Ruesta in the province of Zaragoza.

As far as the Goal aimed at planning land use, using land rationally, and preserving and protecting it is concerned, we should mention actions such as the Coastal Management Plan for Galicia and the Urban Agenda for Menorca, which has set up a complete system of aligned, cross-cutting programmes and actions for all of the island's municipalities, based on its status as a biosphere reserve. Within the framework of **Strategic Goal 1**, we should also mention renowned experiences such as the Green Belt in Vitoria, which is crucial to the development of the city, as well as more specific but equally interesting projects such as the one carried out by Gandía with its Urban Paths: all shades of green.

We have identified actions directly linked to the city model aimed at avoiding urban sprawl and revitalising the existing city through urban regeneration measures, such as the one carried out by the Vizcayan municipality of Sestao or the one put in place in the San Cristóbal neighbourhood in Burgos, and those aimed at improving **accessibility** to public spaces, such as the Jerez de los Caballeros Accessibility Plan in Extremadura. These have been carried out without forgetting projects to improve the quality and sustainability of buildings that have a great impact on the city, such as the restoration of the former abattoir in Madrid.

Improving resilience to **climate change** is one of the main challenges facing urban areas. Many of the actions identified in this regard involve major investments and significant collaboration between administrations. A good example of both aspects is the "Ebro Resilence" action, which is being implemented by a group of administrations along the banks of the Ebro, and the Tormes+ project in Salamanca, which aims to integrate the river into the city by making efforts to rewild it. The Madrid Río project is also worth mentioning in this respect. As far as reducing greenhouse gas emissions is concerned, the Missions Project initiative, which the city of Valencia is carrying out together with other municipalities in the metropolitan area, is particularly innovative.

Many of the aforementioned projects also manage resources sustainably and promote the circular economy, but among them, we have been able to pick out some that are aimed at being efficient and saving energy, such as the zero-emission buildings in Pamplona and the GreenS project to support the sustainable public procurement of Cadiz Provincial Council. Others aim to optimise and reduce water consumption, such as the Sustainable Storm Water Guidelines in Madrid.

The role that **mobility** plays in designing and shaping cities is unquestionable, as are its environmental, health and quality of life consequences. In areas traditionally designed for car use, plans, programmes and even specific actions with a cross-cutting impact that have been identified throughout Spain are particularly noteworthy, including the Superblocks project in Barcelona, the Vertical Transport Plan in Santander aimed at promoting proximity and sustainable mobility, and initiatives that promote sustainable means of transport such as the "Open Streets" project in Logroño and Pontevedra Provincial Council's "Ágora" project.

STRUCTURE OF THE SHEETS

(1) Menorca: Biosphere Reserve
(2) Coastal Management Plan for Galicia.
(3) Actions along the Way of St. James (1.5%).
(4) Historic-Artistic Site, Álcalá del Júcar.
(5) Arrecife. Capital of the Biosphere Reserve.
(6) Urban Pathways: all shades of green.
(7) Madrid Nuevo Norte (Operación Chamartín).
(8) Green city block in Malaga.
(9) Action in the Hospital neighbourhood, Oviedo.
(10) El Partidor: urban regeneration action.
(11) Accessibility Plan for Jerez de los Caballeros.
(12) Accessibility plan for Castellón.
(13) Urban GreenUP in Valladolid.
(14) Urban Forest Innovation Lab.
(15) Sestao Berri. Urban Regeneration.
(16) Urban regeneration in the San Cristobal neighbourhood.
(17) Kairós Project for the town of Mula.
(18) Restoration of the former abattoir in Madrid.
(19) Climate change adaptation plan in Gavá.
(20) Life Baetulo Project in Badalona.
(21) Alicia Climate Plan in Malaga.
(22) Low emissions zones in Barcelona.
(23) Tormes+ in Salamanca.
(24)Ebro Resilience in Alfaro.
(25) Zero-emission buildings in Pamplona.
(26) GreenS Project, sustainable public procurement.
(27) Sustainable Storm Water Management Guidelines.
(28) Strategic Plan: Sustainable Public Management.
(29) Reciclos.
(30) Rural energy community.
(31) Circular Economy in Castilla-La Mancha.
(32) Circular bioeconomy for organic waste.
(33) Vertical transportation plan.
(34) Superblocks in Barcelona.
(35) Open streets in Logroño.
(36) Pontevedra Ágora in Pontevedra.
(37) Youth housing plan.
(38) ERACIS: Strategy for social inclusion and cohesion.
(39) Age-friendly city.
(40) Gender perspective in the urban process.
(41) Proximity food strategy, Valladolid.
(42) Restoration of Canfranc station.
(43) Restoration of the village of Ruesta (Zaragoza)
(44) Network of smart tourism destinations.
(45) REHABITARE Programme.
(46) Access to housing in the historic city of Toledo.
(47) Can Fabra. Housing for young people. NEW BAUHAUS.
(48) Action in Santa Adela neighbourhood, Granada.
(49) Missions Project, Las Naves, Valencia.
(50) City of knowledge.
(51) Smart village (Ansó).
(52) Rivas smart city.
(53) Spatial Planning Guidelines for the Basque Country.
(54) Law on sustainable spatial and urban planning.
(55) Murcia Urban DNA.
(56) Alto Tajo Community of Municipalities Action Plan.
(57) Recovery, Transformation and Resilience Plan.
(58) Atlantic Axis, cross-border: Spain-Portugal.
(59) Pamplona Urban Observatory.
(60) ESenRED, Urban Agenda for Schools.
(A) Vitoria green belt.
(B) 22@ Barcelona Programme.
(C) Bilbao Ría 2000.
(D) Madrid Río Plan.
(E) Urban regeneration, Santa Coloma Gramanet.
(F) Restoration of the Old Town in Santiago de Compostela.

There can be no strategic **integrated** vision without taking aspects linked to social cohesion and the search for equity into account. The “Age-friendly city” project in Ermua, and “Gender perspective in the urban process” implemented by the Valencian Regional Government, which has an important social component, deserve special mention for their impact and innovative nature.

Economic growth is also crucial for sustainable development. Proposals such as the proximity food strategy in Valladolid and the national network of smart destinations are aimed at boosting and stimulating the urban economy through tourism, with new integration-related ideas that have great potential. The Recovery, **Transformation** and Resilience Plan undoubtedly also contributes to this.

The Urban Agenda clearly pays special attention to ensuring access to housing and, to this end, proposes specific objectives to promote the existence of an adequate and affordable housing stock to ensure access for the most vulnerable groups. Experiences such as the Santa Adela neighbourhood in Granada and housing for young people in Can Fabra have been set up with these objectives in mind.

The role of technologies in sustainable development, which is related in a cross-cutting manner to the other objectives, is absolutely essential. In this sense, incipient initiatives have been identified as examples that lead and promote digital innovation, such as the Las Naves Innovation Centre in Valencia and Zaragoza City of **Knowledge**, which has a clear ‘smart’ component, along with the Smart Village Project that is underway in the municipality of Ansó in Huesca.

The right intervention tools and good governance are necessary to successfully achieve all of the above examples, which is why the Spanish Urban Agenda considers it an objective in itself. That is why our catalogue also includes examples and experiences in this regard, such as the Law on Sustainable Spatial and Urban Planning in Extremadura, the Spatial Planning Guidelines in the Basque Country and the citizen participation process in the Agenda for Murcia.

RESULTS

RESULTS OF CASE STUDIES

Having explained the methodology used in this research project and after the process of drawing up this first catalogue on the hypothesis put forward at the start, it is worth highlighting three relevant aspects:

- Firstly, it has been confirmed that the objectives pursued by the Agenda can be achieved through actions carried out in different areas The Spanish Urban Agenda itself has proven to be useful as a strategic framework for determining different urban forms at all scales.

- Secondly, it can be seen that, in all cases, the Agenda makes it possible to identify the **transversality** of the actions and their integrated nature by identifying a variety of interrelated specific objectives.

- Finally, but directly linked to the previous section, the plurality of actors that can get involved in any type of action, regardless of its nature, size and intended objectives, and how the creation of alliances is of paramount importance in achieving them, is also clearly shown.

CONCLUSIONS

The following conclusions can be drawn as a result of this research project:

- Strategic thinking and actions are intrinsic to human nature and, therefore, predate any interventions in cities, and indeed current national and international urban agendas. Therefore, it is not difficult to identify projects, actions and strategies that are perfectly in line with the Spanish Urban Agenda, even though they predate it, and are a fantastic example for inspiring actions within the framework of the current **Action Plans.**

- It has been proven that the strategic framework provided by the Spanish Urban Agenda makes it possible to identify transversality in achieving many of the goals of the strategic projects already implemented and reverse engineering its methodology will ensure that the actions and projects derived from its lines of action are of a transversal nature. It also follows that they will in most cases have an impact on urban form, irrespective of the nature of the strategy, project or specific action analysed.

- From the **practices identified**, it is also possible to determine the evolution of the issue being addressed (economic, social and environmental) and the type or legal nature of the tools used to implement them. Consequently, a distinction can be made between a first generation of strategic and integrated actions aimed primarily at intervening in the existing city, and which are closely linked to urban planning – for example, through urban restoration and regeneration actions, recovering green spaces or, later on, integrating rivers into cities– and a second generation of actions focused on a theme more related to an environmental perspective, which require strategic planning in themselves. Finally, there is a third generation, linked to the others but which is becoming more important, has a greater impact on the most recent good practices, and obeys the criteria of citizen participation, collaboration between administrations, and **transparency** in the exchange of knowledge, as demanded by international agreements under the term governance. From the above it can be concluded that there is a clear link between the strategies and the tools needed to implement them.

- Finally, it is worth mentioning the need to implement active dialogue with citizens, making all planning accessible to people and giving citizens joint responsibility for planning. In this context, the management of our towns, cities and regions emerged as a capable tool required to bring concerns and knowledge together about them in a jointly responsible and united manner. However, this information and knowledge cannot be operational without a methodology that will allow it to be managed in a comprehensive and integrated manner. That is why there is a focus, echoed by this study, on a change in planning style by adopting a more strategic perspective, i.e. a strategy created under a new form of governance that takes into account three **key** issues: plurality of interests and sensitivities in the city, institutional and citizen participation harmonised with negotiation and cooperation, and a dialectic bottom-up and top-down approach (Healey 1997, 2007).

This strategic nature is not a closed book, but a dialectic approach to managing processes, models and systems through continuous monitoring and contact with society, in an exercise of coherent and coordinated governance of actions that recognises what is unique to each town, city or region, what makes it different or similar, based on the premise that each region, city and town is a resource and an asset.

TERRITORY, LANDSCAPE AND BIODIVERSITY

1 STRATEGIC GOALS

PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

SPECIFIC GOALS

1.1. PLAN LAND USE IN A WAY THAT IS COMPATIBLE WITH ITS TERRITORIAL ENVIRONMENT.

- Menorca: Biosphere Reserve
- Coastal Management Plan for Galicia.

1.2. PRESERVE AND IMPROVE NATURAL AND CULTURAL HERITAGE AND PROTECT THE LANDSCAPE.

- Actions along the Way of St. James (1.5%).
- Historic-Artistic Site, Álcalá del Júcar.

1.3. IMPROVE GREEN AND BLUE INFRASTRUCTURES AND LINK THEM TO THE NATURAL CONTEXT.

- Arrecife. Capital of the Biosphere Reserve
- Urban Pathways in Gandía: all shades of green.

DATA

LOCATION
Menorca, Balearic Islands, Spain.

ACTORS
· Island Council of Menorca.
· Menorca Biosphere Reserve.
· Government of the Balearic Islands.
· UNESCO Covenant of Mayors.
· Man and the Biosphere (MAB) Programme .
· UN Agenda.
· Menorca Biosphere Reserve Agency of the Island Council of Menorca.

DATES
·1993: Menorca declared a Biosphere Reserve (BR) by UNESCO.
·2004: Extension of the declaration of the BR.
·2015: The MBR drew up its first Biodiversity Conservation Strategy (four-year action programme).

AREA OF ACTION
445,005 Ha.

SOURCES
Menorca 2030 Strategy:
https://www.biosferamenorca.org/

PHASE
In progress.

SUMMARY

Menorca is an island, declared a Biosphere Reserve by UNESCO. Its main challenge and desire is to become an example of **sustainability** and balance between human action and the natural environment. As part of this desire, Menorca became the first region in the world to obtain this status in its entirety more than twenty-five years ago.

The World Network of Biosphere Reserves stemmed from UNESCO's Man and the Biosphere programme. The World Network of Biosphere Reserves is intended to play an active role in which different places experiment with sustainable development.

In this case, Menorca, like the other areas that make up the Network of Biosphere Reserves, provided a space in which to test pioneering projects and programmes in order to transfer good practices related to the appropriate integration between human development and the conservation of nature and cultural heritage. In addition, the results of this sustainable management need to be shown to inhabitants and visitors alike, to demonstrate the path of social transformation towards sustainable development.

The Biosphere Reserve programme is an opportunity to take action towards sustainable development and the 2019-2025 Action Plan aims to reinforce and drive this commitment.

OVERVIEW

OBJECTIVES

The plan is structured around six main objectives:

- To **conserve** the intrinsic natural and cultural values of the Biosphere Reserve, promoting sustainability in its use in a way that is compatible with its conservation.

- To work towards an **efficient** society and economy and to seek self-sufficiency in terms of resources and energy, with high resilience and a smaller environmental footprint.

- To achieve sustainable economic and social development, by promoting the circular, green, blue and social economy.

- To become a benchmark place of learning, **innovation** and experimentation in the field of sustainability and sustainable development with the participation and involvement of the entire community.

- To develop and implement tools to control the impacts of economic development and not to exceed the environmental and social load capacity of the island by taking adaptive management into account.

- To achieve the coordination and cooperation of social, economic, public and private actors in order to jointly make progress in the sustainable development of the MBR by looking to network at a local and international level.

BACKGROUND

Menorca has preserved its physiognomy quite well, but it has an unsustainable and inefficient physiology, based on fossil fuels and the transfer of impacts (externalities) to other places. It had asked for an extension of the marine part of the reserve and rezoning of the land.

DESCRIPTION

The importance of agriculture in **preserving** the natural environment is one of the essential factors for which Minorca has achieved a territorial balance, which led to it being declared the Menorca Biosphere Reserve (MBR) by UNESCO, in addition to the high quality of its landscape and compatibility between its economic activities, the consumption of resources and the conservation of its heritage.

Biosphere reserves need to combine three functions. The role of conservation is to protect landscapes, ecosystems, species and genetic variation; the role of **development** is to use biosphere areas as models for sustainable development; and the role of logistical support is to use biosphere reserves to support research, observation, education and training projects.

The Action Plan for the Reserve is aimed at achieving realistic and executable actions until 2025, proposing innovative actions in line with the functions of the Biosphere Reserve, setting up coordination channels between all of the actors working towards sustainability, proposing appropriate governance by taking these actors into account, seeking alliances for networking and international work, and laying the foundations for monitoring the Plan itself.

To make the plan more realistic and make monitoring easier, each of these main objectives has been broken down into operational goals that build on the conceptual framework of the 17 Sustainable Development Goals (SDGs).

Finally, it should be noted that, in order to achieve the general and operational goals set out in the Menorca Biosphere Reserve Action Plan, the plan aims to achieve a number of **milestones** by 2025 through various actions. These actions have been broken down into the main lines of action defined by the Scientific and Social Council for the new operational phase of the Menorca Biosphere Reserve.

The Plan defines a related action programme for each main line of action, which includes specific actions to achieve the operational goals set out above.

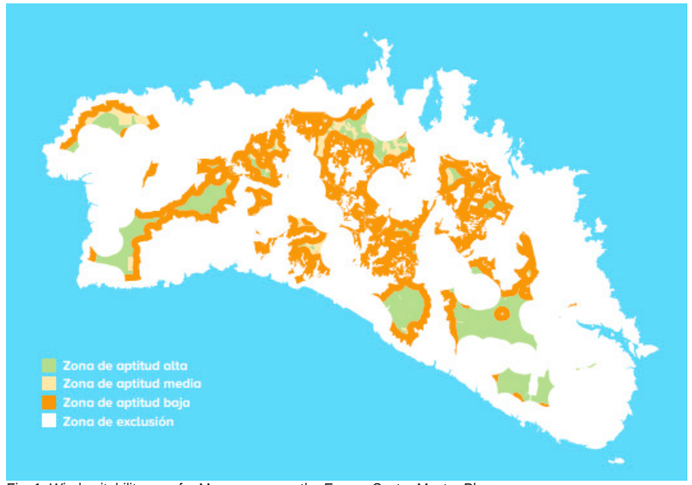


Fig. 1. Wind suitability map for Menorca as per the Energy Sector Master Plan.

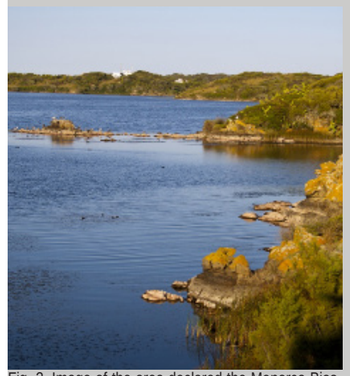


Fig. 2. Image of the area declared the Menorca Biosphere Reserve.

Fig. 3. Image of the area declared the Menorca Biosphere Reserve.

Fig. 4. Image of the area declared the Menorca Biosphere Reserve.

Fig. 5. Image of the area declared the Menorca Biosphere Reserve.

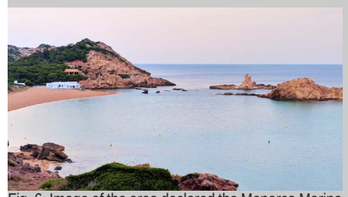


Fig. 6. Image of the area declared the Menorca Marine Biosphere Reserve.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

RESULTS

In 2008, it was 15 years after the declaration, and the results achieved were positive. In 2000, the Agenda 21s of Menorca's towns and cities began to function, which marked the first steps towards sustainability.

In addition, the Observatorio Socioambiental de Menorca (OBSAM) (Socio-environmental Observatory of Menorca) carried out various LIFE (European) projects, thereby achieving the goal of promoting research in the territory.

The state of conservation of the island's dune systems was also found to have improved over the previous decade, and an image and sound archive was created through which regular exhibitions were organised for the public, mainly aimed at reaching out to the local population.

By 2013, after 20 years of the Reserve, significant progress had been made in managing waste, reaching a level of 36%.

The volunteer-based scientific bird-monitoring networks on the island are a clear example of the interest that exists in significant segments of the population regarding their environment. The social participation and involvement of the population in their natural and cultural environment is another of the great challenges of the BR.

Recently (2019), a second extension of the Menorca Biosphere Reserve was approved, along with a rezoning of its territory, to give more importance to the marine part of the Reserve. The Biosphere Reserve Plan is currently being adapted and completed in line with the methodology of the **Spanish Urban Agenda**, to become the first Urban Agenda for an island territory.

PROCEDURE

The process of developing the BR began in 1989. Seven years later, in 1996, the **Socio-environmental Observatory** of Menorca (OBSAM) was presented as an instrument of the Instituto Menorquín de Estudios (IME) (Menorcan Institute of Studies) to carry out the functions of the Biosphere Reserve as a tool for territorial management.

A feasibility study of the sustainable development plan envisaged for the territory was presented in 1998. Ten years later, in 2008, the Menorca Biosphere Reserve Agency was created with the aim of managing and carrying out actions to achieve the goals.

In 2015, the MBR drew up its first Biodiversity Conservation Strategy, with a four-year action programme. In 2016, the development and implementation of a Biodiversity Monitoring Programme began and a year later, in 2017, the reserve was equipped with a Documentation Centre.

At present, there is a 2019-2025 Action Plan, which proposes preparing an annual report on its activities.

REGULATORY FRAMEWORK

The policy framework for drafting the **2019-2025 Action Plan** is as follows:

- The MAB Programme.
- The Seville Strategy Guidelines and the statutory framework.
- The Montseny Action Plan.
- The 2015-2025 MAB Strategy.
- The 2016-2025 Lima Action Plan.
- The 2017-2025 Ordesa-Viñamala Plan together with the Network of Biosphere Reserves (2016-2025).

ASSESSMENT

LESSONS LEARNED

Since its inception, its declaration as a Biosphere Reserve has been an asset that has contributed to the improvement of the island of Menorca in terms of socio-economic development, research and education for sustainability. In short, the key lessons learned are as follows:

- Having an established history of action to maintain **quality** of life in a sustainable environment is a solid basis for the success of new and more ambitious sustainability strategies.

In the case of Menorca, the Biosphere Reserve is a territory that has made a great commitment to sustainability, and this allows it to tackle the energy issue with greater security and commitment.

- Menorca has a whole range of environmental conditions suitable for implementing innovative experiments, in this case the use of **renewable energies**, and even for becoming a benchmark in this field.

- The involvement of different administrations and the support and involvement of the EU has been fundamental in the island's energy transition process.

GOVERNANCE AND TRANSFERABILITY

The **organisation** dedicated to the Menorca Biosphere Reserve is in charge of leading the projects. It has administrative and economic autonomy, and reports to the Island Council of Menorca. It is structured in various organs: President, Vice-President, Governing Council of the Reserve, Covenant of Mayors of the Reserve, Management, Social Council and Scientific Council.

In terms of economic resources, the Spanish Government works together with the Government of the Balearic Islands and the Island Council of Menorca and they jointly contribute to funding the various projects which, on occasions, also also receive subsidies from the Ministry for Ecological Transition and the Demographic Challenge (MITERD) and the Waste Prevention and Management Plan for Menorca (PIPGReM by its Spanish acronym).

In terms of human resources, the Island Council has administrative staff, and a beach cleaning service, among others. The Island Council also has tools for participation, the consultative bodies of which are: the Social Council, the Scientific Council, the Covenant of Mayors and OBSAM. In addition, the reserve has had a Documentation Centre since 2017.

The project works together with UNESCO's MAB Programme and the Menorca Biosphere Reserve Action Plan in the areas of sustainable management, education, conservation and development of the region.

SOSTENIBILIDAD

The commitment to make progress along the path of sustainability means that Menorca is committed to creating a framework for a relationship between people and the environment that makes it possible to conserve natural and cultural **heritage**, socio-economic development, research and education towards sustainability.

The Menorca Biosphere Reserve brand is a guarantee for visitors and inhabitants that, by choosing to consume its products and services, they are contributing to the sustainable development of the island and creating a positive environmental, cultural, social and economic impact while at the same time promoting its development and conservation.

Fig. 7. Image of the area declared the Menorca Biosphere Reserve.

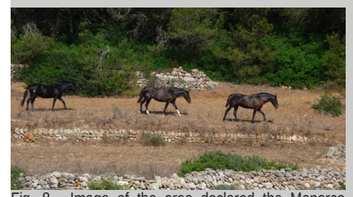


Fig. 8. Image of the area declared the Menorca Biosphere Reserve.

Fig. 9. Image of the area declared the Menorca Biosphere Reserve.

Fig. 10. Image of the area declared the Menorca Biosphere Reserve.

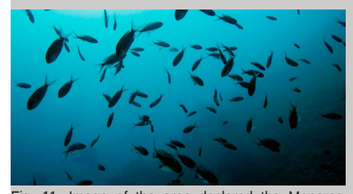


Fig. 11. Image of the area declared the Menorca Biosphere Reserve.

DATA

LOCATION
82 municipalities on the coast of Galicia.
Pontevedra, A Coruña and Lugo.

ACTORS
· Xunta of Galicia.
· Spanish Government.
· Spanish Committee on Habitat.
· University of Santiago de Compostela.
· Centre for University Extension and Environmental Dissemination of Galicia (CEIDA by its Spanish acronym) and University of Vigo.
· Galician Society of Natural History (SGHN by its Spanish acronym).
· Official Association of Architects of Galicia (COAG by its Spanish acronym).
· LandLab.
· Landscape Laboratory (S.L.U.P.)
· Juana de Vega Foundation.
· Galician School of Landscape.

DATES
· 2009-2010: Start of the Plan and citizen participation.
·2011: Final approval of the Coastal Management Plan for Galicia.

AREA OF ACTION
215,359 ha. Coast of Galicia.

SOURCES
Coastal Management Plan:
http:/webpol.xunta.gal/web/index.php

RECOGNITION
· 2012- Unhabitat Good Practice. Dubai International Award For Best Practices.
· 2013- 12th Spanish Architecture and Urban Planning Biennial.

PHASE
Implemented.

SUMMARY

The Coastal Management Plan (CMP) for Galicia is a comprehensive coastal **planning tool** set out in Law 10/1995 of November 23, 1995, on spatial planning in Galicia.

The CMP, which applies to 82 municipalities covering a total of 215,359 ha, could be defined as a planning system and relational management model far removed from the more traditional tools, which aims to set out the criteria, principles and general rules for urban planning in the coastal area based on criteria of durability and sustainability, as well as the regulations needed to safeguard the **conservation, protection** and enhancement of the coastal areas.

OVERVIEW

OBJECTIVES

With **spatial planning** and rational use of land, its conservation and protection in mind, the objectives set were as follows:

· To define the area of Galicia's coastline subject to planning.

· To specify the global criteria for land use planning, regulating activities and setting the general criteria for protecting the coastal environment in the defined area.

· To set criteria for defending natural elements, beaches and, in general, the coastal landscape and to delimit those coastal and littoral ecosystems, beaches and geomorphological and landscape units whose current or potential natural characteristics justify their conservation and protection.

· To set up a basic reference framework for integrating territorial policies and urban development actions, taking the sustainability of the natural coastal resources into account.
· To set spatial planning guidelines for the coastal municipalities in the Autonomous Community of Galicia. To promote large-scale land-use planning, within the different planning categories that make up the different landscape units.

· To draw up specific regulations to be applied to the different categories, constituting the management framework from which to regulate and control land uses and activities on the coast, from the perspective of the protection and conservation needed to preserve its natural characteristics and values.

· To achieve optimal coordination of territorial and urban planning actions between the administrations that operate on the coast and its land environment (central, regional and local administrations), subject to the prior and obligatory respect for the administrative competences of each party and the coordination mechanisms in force.

· To constitute the basis for drawing up a Coordinated Action Programme for coastal areas and proposing actions for conserving and restoring coastal areas.

BACKGROUND

Before the approval of the Coastal Management Plan (CMP) for Galicia, 1,251,491 inhabitants lived in the area covered, representing approximately 45% of the population of Galicia.

There was also a noticeable lack of spatial planning which, together with the development over recent decades, led to serious disturbances such as territorial, ecological and landscape fragmentation, severe degradation of natural and cultural resources, urban sprawl and a **loss of identity**. This led to the need for a plan capable of resolving these issues and organising, conserving and protecting Galicia's coastal areas.

DESCRIPTION

The CMP is aimed at "**setting the criteria**, principles and general rules for urban planning in the coastal areas based on criteria of durability and sustainability, as well as the regulations required to ensure the conservation, protection and enhancement of the coastal areas". The CMP has not only led to the definition of a number of elements and their corresponding regulations, but has also revealed the dynamics and processes of the socio-ecological co-evolution of the region.

After the diagnosis phase, the **future scenario** was sketched out by designing a model structured through different elements that overlap and complement each other to reflect the specific features of each area, making it possible to manage the territory dynamically. In it, the landscape is integrated as a tool for adopting a multi-scale approach, in such a way that information becomes training and, therefore, an element of reflection and motivation for spatial planning, enabling decision-making from a dynamic and participatory perspective.

One of the distinctive features of this plan is the intensive use of geographic information systems, thereby facilitating dialogue between fieldwork and cartography and leading to a new way of reading and understanding the territory, based on the multidimensionality of the landscape as a tool for interpretation.

It is also worth mentioning the commitment to transparent information, commitment and dialogue between all the actors involved, both from the political and administrative spheres, and citizens.

RESULTS

The results of implementing the proposed strategy and model were as follows:

- The creation of a common framework for spatial management on the coast, making it easier to coordinate the different administrations and collaboration between citizens and social groups.
- The promotion of the joint responsibility of all the actors involved in the territory, especially local administrations.
- The **protection of the coastal** landscape and its natural and cultural elements, fostering their functionality and enhancement.
- The contribution to a rational development of settlements, ensuring accessibility for

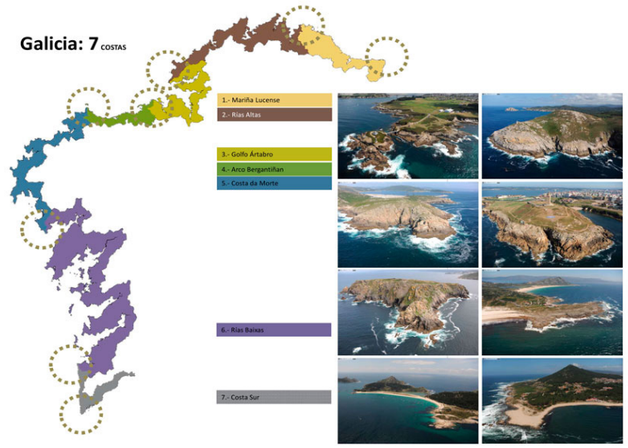


Fig. 1. Coast of Galicia.

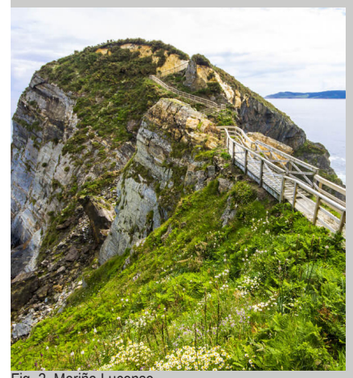


Fig. 2. Mariña Lucense.

Fig. 3. Walkway by the sea in Ribadeo, Mariña Lucense.

Fig. 4. Rías Altas.

Fig. 5. Cliffs and beaches at Rías Altas.

Fig. 6. Golfo Ártabro.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.3 Improve resilience to climate change.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

for all citizens to information, facilities and services.
- The dissemination and **transfer of knowledge** related to the natural, cultural and landscape values of the coastline, which contributes to social and professional training and motivation and rationality in the use and management of resources.

In addition, a monitoring system was designed to measure these results and their possible effects, including implementation and development indicators of a more administrative-institutional nature as a tool for ascertaining the degree of development and application of the CMP through the adaptation of urban planning, territorial **sustainability indicators** for monitoring the progress made by the territory in fulfilling the sustainability goals and criteria in the model and setting up adaptation measures where necessary, as well as territorial and urban perception surveys to determine the public's perception of their quality of life situation.

PROCEDURE

At its meeting on May 24, 2007, the Council of the Xunta de Galicia agreed to initiate the procedure for drawing up and approving the Coastal Management Plan, in accordance with the provisions of Article 2.3 of Law 6/2007, on urgent measures for spatial and coastal planning in Galicia.

Two years later, in February 2009, the initiation document was sent to the environmental body to notify them of the start of the Strategic Environmental Assessment procedure. In May of the same year, the previous agreement of the Council of the Xunta was published and communicated to the town and city councils included in the annex of Law 6/2007 and the Provincial Councils. However, there was a period of hiatus and, between January and April 2010, the progress report and the opening of the consultation and public participation phase were presented.

Between July and September 2010, the initial approval and a new **public participation** and consultation process took place. In December of the same year, prior to provisional approval, the promoting body sent the environmental body the complete documentation for the plan, taking the environmental sustainability report, arguments and reports presented during the consultation period, and a proposal for an environmental report into consideration.

Finally, in February 2011, once a favourable report had been issued by the Directorate General for Coastal and Marine Sustainability, the Coastal Management Plan (CMP) for Galicia was finally approved by the Xunta de Galicia.

REGULATORY FRAMEWORK

The CMP was carried out within the framework of Law 10/1995 of November 23, on spatial planning in Galicia, Law 6/2007 of May 11, on urgent measures for spatial and coastal planning in Galicia and under Law 7/2008 of July 7, on the protection of the Galician landscape.

The Plan was also approved by Decree 20/2011 of February 10. Consequently, the **cascade planning** system set out in Law 10/1995 of November 23 and the Spatial Planning Guidelines, also approved in February 2011, set out the hierarchy for applying and integrating the determinations of the CMP in the remaining spatial planning and urban planning tools.

DERIVATIVE PLANS

The Coastal Management Plan for Galicia has given rise to a number of spatial and landscape planning tools that are being implemented in Galicia, such as the Coastal Aquaculture Master Plan, the Business Area Management Plan and the Galician Landscape Strategy.

ASSESSMENT

LESSONS LEARNED

The first lesson learned was to transcend the concept of territorial governance in order to put active dialogue with citizens and the territory into practice, making spatial planning accessible to people and citizens jointly responsible for their spatial planning. In this context, **landscape management** emerged as a capable tool required to bring concerns and knowledge about the territory together in a jointly responsible and united manner.

But all this information and knowledge would not have been operational without a methodology to manage it in a comprehensive and integrated manner. More specifically, the **landscape unit** delimitation methodology was followed.

GOVERNANCE AND TRANSFERABILITY

The CMP was led by the Directorate General for Sustainability and Landscape of the Regional Ministry for the Environment, Territory and Infrastructure of the Government of Galicia. This Directorate General organised a team that was made up of the administration's material and human resources and by contracting technical support.

In addition, the Sub-Directorate of Territorial Information Systems (SIT-GA by its Spanish acronym) of the Galician Government prepared all of the specific cartography required and integrated it into an information system open to all citizens.

The work methodology applied to prepare the CMP is **transferable** to any other territorial and/or urban planning tool. It consists of using cartography as a language, characterisation as opposed to valuation –which is about recognising what is unique to each landscape, what makes it similar or different– logic as a mechanism of dynamic management –which is about establishing an open board on which new relationships come to life when a new element is introduced– but always based on the same principles.

This leads to the creation of relational, flexible, dynamic and open models, based on the complementarity of actions, and dialectics as a strategy.

Moreover, the Xunta de Galicia itself has created a website where all the information about the CMP is available, together with all the documents that make up the planning tool.

SUSTAINABILITY

As far as social and economic sustainability is concerned, the CMP model is committed to rational land use, giving priority to protecting and enhancing the value of natural and cultural heritage, which involves recovering and promoting it as an economic asset.

In terms of environmental and cultural sustainability, the spatial model pursues the protection, management and planning of natural and cultural resources, establishing principles, criteria and rules based on a profound knowledge and an integrated view of the landscape approach.

This makes it possible to manage **resources efficiently** based on optimising energy and material cycles.

In terms of financial sustainability, it will lead to a reduction in other costs as a result of the information made available and the coordination of public and private actors.

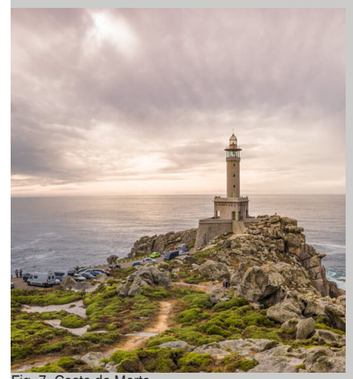


Fig. 7. Costa da Morte.


Fig. 8. View of Cabo Touriñán and its lighthouse. Costa da Morte.


Fig. 9. Walled perimeter of Jerez de los Caballeros.


Fig. 10. Costa Rías Baixas.


Fig. 11. Cliffs at Praia do Rostro, South Coast.

DATA

LOCATION
Territories related to the Way of St. James, Spain

ACTORS
· Ministry of Transport, Mobility and Urban Agenda.
· Municipal councils.

DATES
· 1985: Law on Spanish Historical Heritage. (1% allocation).
· 1987: The Way of St. James is declared the First European Cultural Itinerary by the Council of Europe.
· 1993: The Way of St. James is listed as a World Heritage Site.
· 2008: The first actions start.
· 2013: Legal allocation increased to 1.5%.

AREA OF ACTION
Different routes and settings along the Way of St. James.

SOURCES
Ministry of Transport, Mobility and Urban Agenda:
http://patrimoniohistorico.fomento.es/index.aspx

PHASE
In the process of implementation.

SUMMARY

The Way of St. James, which is made up of a network of pilgrimage routes to Santiago de Compostela, was declared the First European Cultural Itinerary by the Council of Europe in 1987 and included in the list of World Heritage Sites in 1993.

The **Law on Spanish Historical Heritage** sets out the obligation to allocate at least 1% of public works contracts to works for conserving or enhancing Spanish Historical Heritage and to promote artistic creativity, with preference given to the work itself or its immediate surroundings. The Ministry of Development determined that this percentage should be increased from 1% to 1.5%, a measure that was approved on October 15, 2013. This 1.5% Cultural contribution has been used to fund the adaptation and urbanisation of sections of the Way of St. James and its immediate urban environment, along with projects to restore and rehabilitate buildings of cultural interest linked to it, among many other interventions.

OVERVIEW

OBJECTIVES

- The main objective of this initiative is to **recover and enhance the historical heritage** related to the Way of St. James. Some of the goals that fall under this main objective are:

- To promote the maintenance of the country's existing cultural and architectural heritage.

- To **introduce the public** to unique historical elements that are unknown or forgotten due to neglect or disuse.

- To encourage the improvement and transformation of the Way of St. James network, bearing in mind that it is a tangible and intangible asset recognised worldwide.

- To protect historic assets and the culture they embody from the passage of time.

BACKGROUND

Spain is currently the country with the fourth largest number of World Heritage Sites according to the United Nations Educational, Scientific and Cultural Organisation (UNESCO). This gives an idea of Spain's cultural, artistic and historical potential, but at the same time underlines the need to invest in and maintain this heritage. In 1985, a new legal framework was set up to protect, enhance and pass Spanish Historical Heritage on to future generations. The Law on Spanish Historical Heritage was created, with a stipulation that an amount equivalent to at least 1% of the funds contributed by the State to fund conservation work on Spanish Historical Heritage would be included in the budget of every public works project funded wholly or in part by the State, among other things.

DESCRIPTION

One of the lines of action that was defined within the "1.5% Cultural Heritage Conservation Fund" was the Way of St. James. Therefore, any **project along the Way of St. James** that could be considered a work of conservation or enhancement of Spanish Historical Heritage could be eligible for this additional funding. The application for this benefit is made through the Ministry of Transport, Mobility and Urban Agenda. The Way of St. James was declared a World Heritage Site in 1993. It has a rich architectural heritage, made up of buildings designed to meet the material and spiritual needs of pilgrims.

Therefore, the essential working material involved in any actions carried out on this historic network are the heritage assets that make up its fabric, with the guiding principle being to "**provide access to heritage**".

RESULTS

To date, a total of **91 actions** have been carried out along the Way of St. James, supported by the 1.5% Cultural Fund:

- Andalusia (2): restoration of the Church of San Luis and Domestic Chapel of the Former Jesuit Novitiate; improvement to the enclosure on the southern edge of the archaeological site of Italica.

- Aragon (6): restoration of Santa Ana Chapel in Jaca Cathedral; repair of two retaining walls of the Citadel of Jaca; restoration of the roofs of the Citadel in Jaca-San Pedro Castle; restoration of the Canfranc International Station building; restoration of the platforms around the perimeter and the concourse of Canfranc International Station for public use; restoration, recovery and upgrading of the Way of St James in Aragon.

- Asturias (14): integral action on the Palacio Valdés Theatre in Avilés; restoration of the Balsera Palace; restoration of the Merced Monastery in Raices Viejo; restoration of the Clock Tower in the town of Figueras; work on the path to the Cudillero lighthouse, development in the Historic-Artistic Site of Cudillero and the complete paving of the Historic Port; recovery of the Wall of Grado; "Cubos de la memoria" (The Memory Cubes) in the port of Llanes; renovation of the roofs of the Monastery of San Pelayo; "Tito Bustillo" Cave Art Centre; refurbishment of building no. 26 in Calle Olavarrieta; restoration of the Church of San Salvador de Valdediós; **restoration** of Palacio de los Hevia (Palace of the Hevia Family).

- Cantabria (6): restoration of the Walled Enclosure in Estrada; restoration of the Palace of Riva-Herrera; restoration of the Palacio de los Corro (Palace of the Corro Family); refurbishment of the White House on the Marqués de Valdecilla estate; refurbishment of Casa "El Espolón"; refurbishment of the former Pilgrims' Hospital of San Julián de Isla as a hostel and its surroundings.

- Catalonia (1): rehabilitation of various sections of the Way of St. James route in Catalonia, as it passes through the historic fortress town of Cervera.

Fig. 1 Example of action carried out under the 1.5% Cultural Heritage Conservation Programme along the Way of St. James..

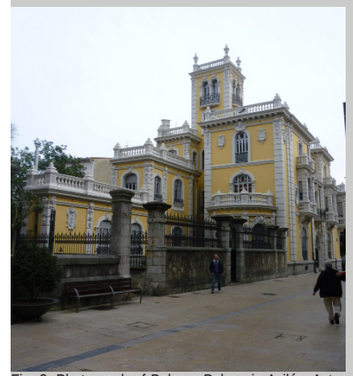


Fig. 2. Photograph of Balsera Palace in Avilés, Asturias.

Fig. 3. Photograph of the stone bridge in Logroño, a restored section of the Way of St. James.

Fig. 4. Photograph of the main façade of the convent of San Marcos in the city of León.

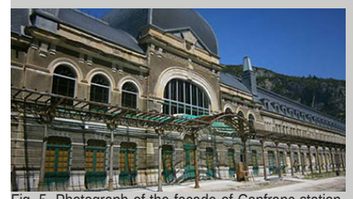


Fig. 5. Photograph of the façade of Canfranc station, which has been restored for public use.

Fig. 6. Photograph of the Wall of Lugo, one of the structures that has been restored.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

- Castile y León (13): restoration of Cacabelos Archaeological Museum; archaeological work to and recovery of Castrojeriz Castle; refurbishment of Casas del Cubo y de los Lerma as a hostel for pilgrims; consolidation work on the Hospital de la Concepción, (Phase I and II); León Roman Wall Plan 2018-2019; restoration of the main façade of the Convent of San Marcos in León; recovery, improvements to and restoration of the Way of St. James as it passes through León; **adaptation of the Villafranquino theatre facilities**; restoration of the Castro Ventosa Wall; refurbishment and adaptation of the Canal de Castilla Dock building in Palencia; refurbishment of the Tower of the Ducal Palace of Béjar.

- Castilla-La Mancha (1): work on the west gallery of the Main Square in Tembleque.

- Extremadura (4): partial refurbishment of the Moorish citadel of Alcazaba of Badajoz; construction of the roof on the Roman amphitheatre in Mérida; consolidation, structural restoration and conservation of the wall of the Alcazaba of Mérida; restoration of the Alcantara Roman Bridge.

- Galicia (27): improvements to the French route of the Way of Saint James to Santiago de Compostela in the public areas of the towns of Fonfria, Boente de Arriba, Santa Maria de Melide, San Paio, Eirexe, San Xiao do Camiño, Palas de Rei, A Parrocha, Liñares, Gonzar, San Xil de Carballo, Barbadelo and Ramil; archaeological work at the archaeological site of Castro de Elviña; refurbishment and improvements to the Padrón Artistic Botanical Garden; work on the Casa del Cabildo; restoration of the Portico of Glory and its surroundings at Santiago de Compostela Cathedral; **structural consolidation** of the Roman wall of Lugo (Phase I and II); refurbishment of "A Ponte Vella"; restoration on the main façade of Lugo Cathedral; restoration of the main chapel and transept of Lugo Cathedral; rehabilitation of the road in the parish of Ligonde in Monterroso; refurbishment of the roof and restoration of the façade of the Church of the Monastery of San Xulián de Samos; improvements to the park and garden and its surroundings in Carballeira.

- La Rioja (5): restoration and improvements to the Way of St. James as it passes through Logroño; partial restoration of the wall in Navarrete; replacement of windows in the cloister and **restoration of the façades** and opening of the Puerta del Perdón (Door of Forgiveness) of the Cathedral of Santo Domingo de la Calzada; restoration of the former prison as a music school.

- Navarre (7): restoration of the Medieval Tower of Olcoz; restoration of the surroundings of the priory house and the Chapels of Santiago and Espíritu Santo in the monumental complex of Orreaga/Roncesvalles; restoration of Santa Isabel Ravelin, and accesses to the Citadel of Pamplona, as well as its exterior and Guadelupe Bastion.

- Basque Country (5): restoration of the Liceo theatre in Guernica; restoration of the Palace of Gaytan de Ayala (Patrokua); restoration of Aguirre Palace in Deba; restoration of Aiete Palace as the House of Peace and Human Rights; restoration of the walls of Castillo de la Mota on Mount Urgull.

PROCEDURE

Both the procedure and the criteria for selecting and prioritising the projects that apply for these funds are set out in Order FOM/1932/2014, which approved the regulatory conditions for granting aid for actions to conserve or enhance Spanish Historical Heritage, using resources from public works funded by the **Ministry of Transport, Mobility and the Urban Agenda** and by subsidiary or related public sector entities.

The deadline for submitting applications is usually 40 working days from the day following the publication of the call for applications, notwithstanding the provisions of Article 30.6 of Law 39/2015 of October 1, on the Common Administrative Procedure of public administrations.

The criteria for accepting applications are as set out in Articles 2 and 3 of the aforementioned Order FOM/1932/2014. Applications that are accepted will be assessed by an assessment committee made up of the Ministries of Transport, Mobility and Urban Agenda and Culture and Sport, as per the assessment criteria set out in Article 7. The procedure for granting aid is set out in Articles 8 and 9. The financial contribution charged to the Ministry of Development will be a maximum of 50% of the total budget for the action if the applicant is an Autonomous Community or one of its subsidiary bodies, and **75% of the total budget** if the applicant is a local authority or any other public or private entity.

REGULATORY FRAMEWORK

- Royal Decree 111/1986 of January 10 - PDF extracted in part from the Law on Spanish Historical Heritage (modified by Royal Decree 162/2002 of February 8).

- Royal Decree 1893/2004 of September 10 (PDF), creating the Interministerial Committee for coordinating the 1% Cultural Fund.
- Order CUL/596/2005 of February 28 (PDF), which publishes the agreement reached by the Interministerial Committee on the criteria for coordinating the management of the 1% Cultural Fund.
- Order FOM/1932/2014 of September 30 (PDF), approving the regulatory bases for granting aid for actions to conserve or enhance Spanish Historical Heritage, charged to the resources from public works funded by the Ministry of Development and by subsidiary or related public sector entities.

ASSESSMENT

GOVERNANCE AND TRANSFERABILITY

Promoting access to heritage for all citizens, particularly with an eye on future generations, is one of the most important lessons of the 1.5% Cultural Programme. As far as the Way of St. James is concerned, this programme demonstrates its important influence on the restoration and regeneration of a cultural hub from which a large number of public and private entities can benefit. This programme will make it easier for possible future projects to find institutional and financial support for **improving infrastructures and historical assets.**

LEADERSHIP AND PARTICIPATION

Since it was approved in the 1985 Law on Historical Heritage –first with 1%, and 1.5% since 2014– and apart from the direct benefits it has brought to the historical infrastructure of the Way of St. James, this initiative has made it possible to fund **more than 1200 actions** throughout the country, with a contribution from the Ministry of Transport, Mobility and the Urban Agenda of more than 730 million euros.

SUSTAINABILITY

The programme has proved to be a success based on the results achieved so far. Among other things, it has made it possible to recover and add value to a number of items of great historical and cultural interest associated with the Way of St. James. Proposals such as this help Spain enormously to safeguard its historical heritage, one of the richest in Europe in terms of architecture and history, and to make its **maintenance and care more sustainable.**

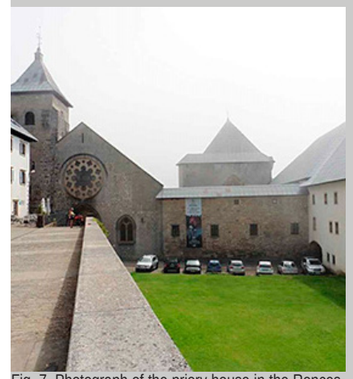


Fig. 7. Photograph of the priory house in the Roncesvalles complex in Navarre.

Fig. 8. Photograph of the Palace of Riva-Herrera, Cantabria, prior to its restoration and rehabilitation.

Fig. 9. Photograph of part of the walled enclosure of the Citadel of Jaca, Huesca.

Fig. 10. Photograph of a façade of the White House on the Marqués de Valdecilla estate, Santander.

Fig. 11. Photograph of the Padrón Artistic Botanical Garden, Galicia.

DATA

LOCATION
Alcalá del Júcar, Albacete.

ACTORS
· Alcalá del Júcar Town Council
· ALG Arquitectos S.L.P. architecture studio.
· Citizens.

DATES
· 1982: declaration of the Historic-Artistic Site of Alcalá del Júcar as an Asset of Cultural Interest, by Royal Decree 2335/1982 of July 30.
· 2016: drafting of the Master Plan for the Urban Regeneration of the Historic-Artistic Site of Alcalá de Júcar.
· December 11, 2018: Signing of the agreement.

AREA OF ACTION
146,82 km².

RECOGNITION
First Prize for Integrated Urban Regeneration Projects.

SOURCES
ARRU Alcalá del Júcar:
https://www.bandomovil.com/archivos/alcaladel-jucar/171117082234_6.ARRU_ALCAL_uDELJUCAR_AZUL.pdf

PHASE
In progress.

SUMMARY

Alcalá del Júcar is a unique municipality in the Manchuela region in the north-east of the province of Albacete. The Historic-Artistic Site of Júcar was declared an Asset of Cultural Interest in 1982. As a result, tourism activity has grown considerably over the decades and provided urban development that was not always in line with the intended urban planning. In fact, it could be said that **tourism and town planning** took place with little respect for the identity of the Historic-Artistic Site, despite the fact that it was a national tourist attraction, and this contributed to the degradation of the heritage values treasured by the municipality.

Faced with this situation, Alcalá del Júcar Town Council implemented the new Municipal Development Plan and the Special Protection Plan for the Historic-Artistic Site, in order to comply with current regulations and try to **reverse the situation** in terms of damage to heritage and social degradation described above At the same time, the Master Plan for the Integral Urban Regeneration of the Historic-Artistic Site of Alcalá del Júcar was drawn up, in line with previous plans, as a strategy and catalyst for restoring the Historic-Artistic Site.

Consequently, the Plan aims to undertake a number of actions to improve the historic area, including improving its road network as a starting point in response to the social needs of the municipality, and to promote its economic revival, by making it an attractive social, cultural and economic centre.

OVERVIEW

OBJECTIVES

The action is aimed at **restoring and regenerating** the surroundings of the Historic-Artistic Site of Alcalá del Júcar, in order to tackle shortcomings in terms of infrastructures and services.

The Master Plan is an ambitious plan for the future to access the lines and programmes being promoted by other administrations for the integrated urban regeneration and renovation of historic-artistic sites, which makes it easier to obtain the economic resources needed to conserve and protect heritage, comprehensively improve the Historic-Artistic Site with heritage as the backbone of its urban renovation and revitalisation, and promote and publicise it as a leading destination for rural tourism.

In short, the aim of the plan is to **breathe new life into the town centre** of Alcalá, while at the same time enabling owners in the area to renovate their properties or replace those that are in poor condition, provided that they respect the architectural balance.

BACKGROUND

The unique orography of the municipality, the ageing population, poor accessibility, and the lack of efficient planning guidelines and regulations meant that the municipality found itself in a delicate situation in which the abandonment of buildings or their precarious state of repair posed a real threat that endangered their preservation.

The degradation of the Historic-Artistic Site of Alcalá del Júcar due to unregulated actions in recent years was the result of putting individual and private interests before the general and communal interests of the municipality as a whole. The existence of multiple problems, both technical (leaks or dangerous paving, among others) and aesthetic (uniformity of paving and façades, among others) made it necessary to propose a general solution through a Master Plan.

DESCRIPTION

The main actions included in the Plan are as follows:

- The refurbishment of housing, for which it is essential to **carry out** works or maintenance work to improve energy efficiency and accessibility.

- The rebuilding of housing, including renovation or new construction in cases of substandard housing or shanty towns. The replacement of buildings used for primary residences is intended to implement all those improvements aimed at reducing energy demand, reducing emissions of polluting gases and increasing the use of renewable energies, and new buildings and housing must comply with the requirements of the Technical Building Code.

- The redevelopment and urbanisation of public spaces. This includes actions such as delimiting a protective environment for the historic area and enhancing its value, highlighting the measures proposed to improve access to view the site and its natural environment and landscape.

This also includes signposting, accessibility and improvements to the existing scenic and hiking routes in the town centre and its surroundings, which would be integrated into the strategic plan as they are part of the protected and preserved areas.

To this end, measures have been taken to **improve the landscape** of the area of action by creating quality spaces, aimed at conserving the historical heritage and enjoyment of the public space, thereby improving the well-being and quality of life of the citizens.

These actions include the project to pave the historic centre, which aims to preserve traditional road patterns by using elements such as flagstones and cobblestones, all of which are made of a natural stone material.

The main roads are designed with a central strip of tiles, with an overall bush-hammered finish and serrated edges, laid in the direction of travel, and side strips made up of cobblestones, where the length predominates in contrast to the layout of the pieces in the aforementioned central strip, with an overall bush-hammered finish and hammered edges.

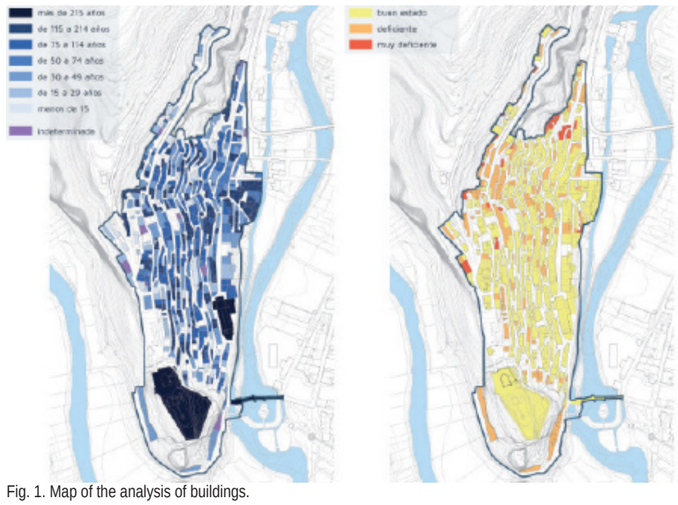


Fig. 1. Map of the analysis of buildings.

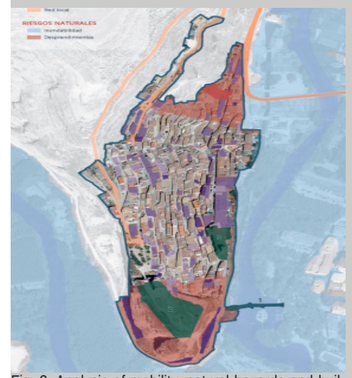


Fig. 2. Analysis of mobility, natural hazards and buildings.

Fig. 3. Partial view of the Historic-Artistic Site of Alcalá del Júcar. - Photographer: José Miguel Esparcia

Fig. 4. Streets in Alcalá del Júcar Photographer: Turalia.

Fig. 5. Streets in the town centre.

Fig. 6. Streets in Alcalá del Júcar

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

- The creation of a technical management team. Therefore, it is essential to include the costs of equipment and personnel of the information and planning office, which manages and provides social support for actions that are eligible.

RESULTS

In January 2019, the team of architects handed over a **Report-Programme** for the Urban and Rural Regeneration and Renovation Area of the Historic-Artistic Site to Alcalá del Júcar town council, for submission to the Provincial Directorate of the Regional Ministry of Public Works, with the aim of applying for this area be declared an Area of Urban Regeneration and Renewal, in accordance with the provisions of Order 115/2018 of July 4, of the Regional Ministry of Public Works, which sets out the regulatory conditions for grants for the Programme for the Promotion of Urban and Rural Regeneration and Renewal.

The Report-Programme, drawn up in collaboration with the town council itself, contains a detailed list of actions that could eventually benefit 120 homes located in the Historic-Artistic Site.

When this was handed over, a key step was taken in the direction of promoting the conservation of heritage and **social development** in this municipality in La Mancha.

PROCEDURE

In December 2016, the second planning and landscape workshop took place, focusing on the Master Plan for the Integrated Urban Regeneration of the Historic Site of Alcalá del Júcar.

In December 2018, the agreement was signed between the autonomous community of Castilla-La Mancha, the province of Albacete and the municipality of Alcalá de Júcar. In January 2019, the Plan's Report-Programme document was presented.

In March 2021, the town council approved a rebate on the Tax on Buildings, Installations and Works for owners of properties in the town's Historic-Artistic Site.

REGULATORY FRAMEWORK

The Town Council has implemented the new Municipal Development Plan and the Special Protection Plan for the Historic-Artistic Site in order to comply with current regulations and try to reverse the situation in terms of damage to heritage and social degradation described above.

At the same time, the Master Plan for the Integral Urban Regeneration of the Historic-Artistic Site of Alcalá del Júcar was drawn up, in line with previous plans, as a strategy and catalyst for restoring and **revitalising the Historic-Artistic Site**. This Plan was drawn up in order to be submitted to the 2017 call for applications for aid for integrated urban regeneration projects in Castilla-La Mancha.

In this call, the project drawn up by Alcalá del Júcar Town Council won first prize for the best urban regeneration project in Castilla-La Mancha, awarded by the Regional Minister for Development.

The Alcalá del Júcar Urban Regeneration and Renewal Department aims to comply with the programme to promote the urban regeneration and renewal of the future State **Housing Plan 2018/2021** and to facilitate access to financial aid for refurbishing or renovating housing, as well as for redevelopment work in the Historic-Artistic Site which includes the Old Town in Alcalá del Júcar and its surrounding area.

ASSESSMENT

LESSONS LEARNED

The first lesson learned was to value the historic centre as a basis for developing the town. User participation was also a key element in implementing and executing the plan, and to this end, the administration's impetus and leadership became the starting point and core support in implementing the plan.

GOVERNANCE AND TRANSFERABILITY

The town council has a **Technical Management Office** for the Programme for the Promotion of Urban Regeneration and Renovation of Alcalá del Júcar, to facilitate the processing of grants for interested parties.

Also, the #Alcalando **participation process**, which is part of the project to design the change of paving carried out by InARQe S.L., combines two main lines of work. Firstly, carrying out activities, workshops and meetings with the different users. And, secondly, preparing technical documentation initially and subsequently, including all of the conclusions drawn from the assessments obtained in the previous line of work.

Similarly, given that the dissemination of the process is a key part of the strategy of the project, a digital tool has been implemented consisting of an instant image comparison tool of the streets of Alcalá (http://alcalando.netlify.com/), which makes it possible to obtain simultaneous feedback, which is essential when drawing conclusions. For this reason, we also use social networks (Facebook and Twitter, among others), websites, and other media such as Cadena SER and publishing articles in La Tribuna de Albacete. The town council also makes various **resources** available to users to implement this good practice, in the form of possible grants:

- Refurbishments with up to €12,000/house and €120/m2 of constructed surface area for commercial premises in buildings of a collective residential type.
- Renovation or new construction (in substandard housing or shanty towns) with up to €30,000 per dwelling.
- Urbanisation with up to €2,000 per refurbished or constructed dwelling.
- Re-housing with up to €4,000/year (maximum 3 years) per cohabitation unit.
- Technical teams and planning offices with up to €1,000/dwelling.
- Increases for Assets of Cultural Interest, where the planned aid is increased by €1,000/house and €10/m2 of built surface area for commercial use, in buildings declared an Asset of Cultural Interest, or attached to the Historic-Artistic Site of Alcalá del Júcar.

SUSTAINABILITY

The experience provided a number of important elements that aimed to create a more **sustainable urban model** for the municipality. Firstly, the value of the built environment was enhanced by improving its infrastructures, encouraging recycling and conserving the built heritage, which helped to enhance the cultural identity and reinforced the landscape and aesthetic quality of the urban environment. Secondly, it created urban diversity and complexity, and increased the attractiveness of the area as a place of residence, work, activity location and tourist attraction. Thirdly, it substantially improved the living conditions and social cohesion of the town: better quality of life (housing, education, work, health, culture and leisure), helped to recover the idea of the town as a common project for citizens and strengthened and improved the green fabric and open spaces for public use. And, finally, it achieved a greater scope and integrated nature of local management with public and private consultation processes and social participation.

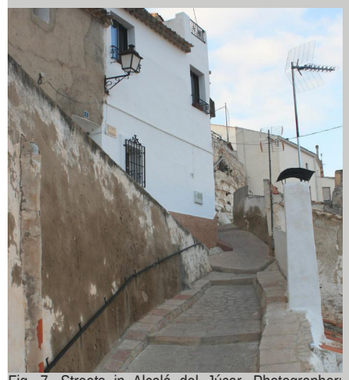


Fig. 7. Streets in Alcalá del Júcar. Photographer: AUG-ARQUITECTOS SLP.

Fig. 8. Rubble in the area of the landslide in Alcalá del Júcar.

Fig. 9. The rock that fell on ten dwellings in Alcalá de Júcar.

Fig. 10. Streets in Alcalá del Júcar

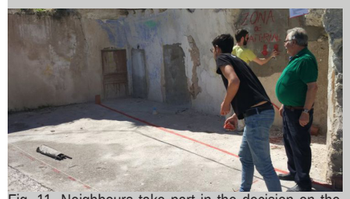


Fig. 11. Neighbours take part in the decision on the type of paving they want in their village.

DATA

LOCATION
Arrecife, Island of Lanzarote (Las Palmas).

ACTORS
· Government of the Canary Islands.
· Lanzarote Council.
· Municipality of Arrecife.
· Arrecife.

DATES
· It started in 2016 and is under development.

AREA OF ACTION
22.72 m2. Municipality of Arrecife.

SOURCES
Project: "Arrecife, Capital of the Biosphere Reserve" - Lanzarote Biosphere:
https://lanzarotebiosfera.org/

RECOGNITION
Observatory for Nature-based Solutions (CONAMA)

PHASE
Under development.

SUMMARY

"Arrecife. Capital of the Biosphere Reserve" is a project coordinated by the Biosphere Reserve of the Council of Lanzarote, which aims to align the planning and design of the island's capital with the principles subscribed to in the declaration of Lanzarote as a **Biosphere Reserve (UNESCO, 1993)**. To this end, it proposes thinking about the future of Arrecife by taking action on three essential elements for the city: rainwater management (water), linked to the challenge of flooding; sustainable mobility for residents and visitors (human); and citizen participation (governance).

The plan includes general planning around **water drainage and sustainable mobility**, plus a number of smaller scale actions including Caminos de Agua (literally waterways), bio corners as a proposal for nature-based solutions, Nodos-Plaza (literally nodes-square), a bioretention park, squares, etc.

OVERVIEW

OBJECTIVES

The "Arrecife. Capital of the Biosphere Reserve" project proposes **taking action on three essential elements for the city: rainwater management, sustainable mobility and citizen participation**, for which it suggests:

Committing to solving the problem of flooding with green infrastructures that filter and store rainwater at source, thereby replicating its natural cycle. The result is four Caminos del Agua that also function as linear parks. This is a first step towards making Arrecife function as an ecosystem in dynamic equilibrium with the island and the biosphere.

Establishing an integrated, equitable mobility model that prioritises light, public modes. To this end, it proposes two differentiated scales: an urban one, which puts the load on the ring road and the Vía Medular to channel fast motorised journeys, and another at a neighbourhood level, which is friendlier, more domestic and inclusive.

Implementing a model of urban governance that recovers the commitments made in the declaration as a Biosphere Reserve and mobilises the participation of Lanzarote's society as a whole and its capital, Arrecife.

BACKGROUND

The history of Lanzarote is largely due to the efforts and ecological ingenuity of its inhabitants in obtaining water. The resulting **collection of water** infrastructures in the form of aljibes (cisterns), maretas (small reservoirs), gavias (ditches) and gerias (pits dug in the soil) is a great example of how to build and adapt arid regions for human life.

Arrecife is located in the centre of the south-easterly facing coast of the island, in the basin formed by the mountainous backbone which runs between the north-eastern and south-western points of the island, where the land runs down to the sea Historically, the capital's inhabitants have been able to take advantage of the run-off and water channels down which rainwater ran. However, this ancient infrastructure has been progressively lost and this is shown in Arrecife's de-naturalized city planning. The city currently suffers from flooding several times a year.

DESCRIPTION

"Arrecife. Capital of the Biosphere Reserve" began with a series of walks through the city, which made it possible to discover little-known social and territorial patterns, such as old pathways, water channels, areas which habitually flood and abandoned cisterns, which make up the fragmented and discontinuous structure of its natural drainage systems.

The project is committed to recovering water run-off and **reconstructing lost sections** with alternative routes. The result is four waterways that cross the city from north to south, known as the *Caminos del Agua* (literally waterways).

These Caminos are **green infrastructures** that filter and store rainwater at source and act as sponges, preventing flooding and avoiding the costly processes of channelling, purification and discharge into the sea of conventional infrastructures. In short, these are sustainable drainage solutions which, in turn, form four linear parks equipped with gardens, recreational facilities and pedestrian paths that connect one neighbourhood with another until they reach the marina.

The four *Caminos del Agua* run across the city. They intersect with the Vía Medular and the ring road, the two main roads that run longitudinally through it. The result is a combination of two infrastructures, one "green" and the other "grey", which creates an urban grid with four linear parks and two roads that run around Arrecife. The seafront, which has become a pedestrian zone, completes the city's grid of walkways. In addition to the Caminos del Agua, the Plan proposes other projects of interest such as:

- **Bio-corners**: these are defined as meeting places, the final configuration of which is decided by residents in the neighbourhood. They are based on the idea of a large tree providing shade and a seating area, which serve as a visual reference and shelter in the arid urban landscape of the city of Arrecife. These new bio-corners are an updated version that adds more bio-functions. In addition to trees, gardens, shaded areas and seating areas, the new bio-corners include a sustainable drainage system that captures, filters and stores rainwater as it used to, when water was a scarce and valuable resource in Lanzarote. Each bio-corner is powered by renewable energy generated onsite and includes free WI-Fi.

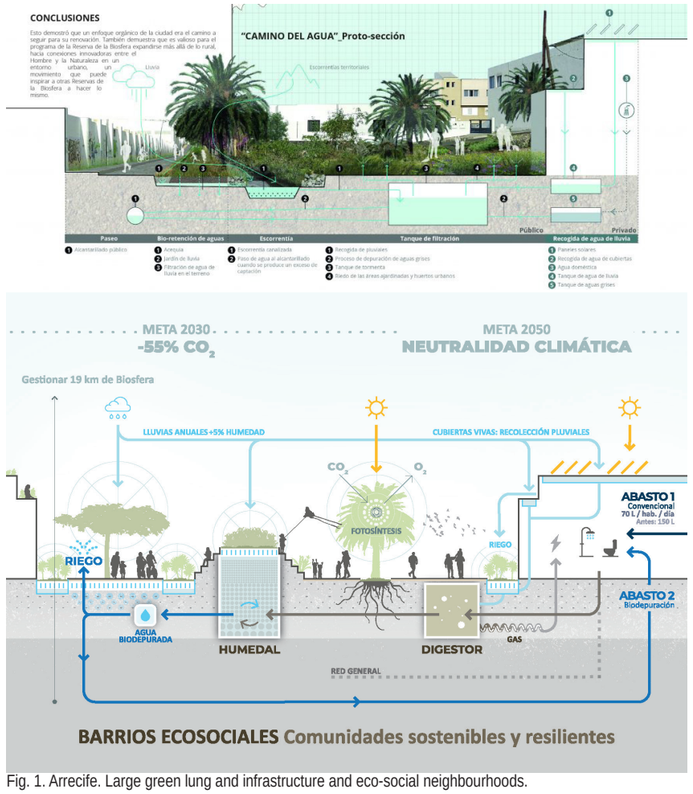


Fig. 1. Arrecife. Large green lung and infrastructure and eco-social neighbourhoods.

AYUNTAMIENTO DE ARRECIFE

Fig. 2. Arrecife Town Hall.

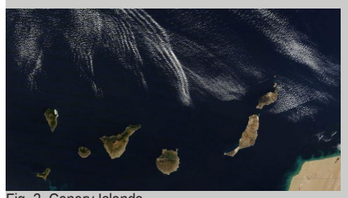


Fig. 3. Canary Islands.

Fig. 4. Arrecife. Master Plan.

Fig. 5. Arrecife. Aerial view.

Fig. 6. Arrecife. Lanzarote tourism.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.3 Improve green and blue infrastructures and link them to the natural context.

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

Bio-corners have a modular design that makes it possible to define the programme of uses in a participatory way, thus helping neighbours to take ownership of this new urban space. Each bio-corner will have the name of an award winner or nominee for the Biosphere Reserve's Referente Award, which is related to the neighbourhood where it is located.

- *Nodos-Plaza* which function as light, open-air transport interchanges, forming shaded squares. One of these is the Plaza de Naos, which extends the wooded area of the Vía Medular by means of artificial trees that incorporate natural vegetation and shady areas. Each tree offers complementary urban services (toilets, cafeteria, tourist information office, bicycle rental, etc.) as well as an area in which to sit and wait. The project is rounded off with a public square equipped with bus, taxi and light vehicle stops.

- *Plaza Zonzamas* is a public space that acts as a meeting point between the neighbourhood and the Zonzamas vocational training centre. It is set out in a number of volcano-inspired topographies incorporating lush vegetation and seating areas. The spaces in between are occupied with small squares and platforms. In the morning, the square is used as a complementary space for the nearby schools and can be used for open-air classes. In the afternoon, it becomes a recreational and rest area for the neighbourhood's residents and families. A recent press article described it as "a garden with desks".

- The *Bio-retention Park*, located in the upper part of the Argana neighbourhood, acts as a catchment area at source for the first rainwater, thereby reducing run-off further downhill. This green infrastructure, which operates on nature-based principles, is also a park equipped with gardens, play infrastructures, paths and public spaces. The Argana Bio-Retention Park also acts as a buffer, façade and protection for the northern side of the city.

- The concept of the **Eco-social Neighbourhoods** involves participatory planning processes for implementing local urban services, community facilities, inclusive streets with limited speeds and improved public areas, as well as the development of green infrastructure for the distributed generation of clean energy, urban gardens, natural purification of sewage and grey water and recycling of organic waste.

RESULTS

In addition to the Caminos del agua, the **"Bio-corners for Arrecife"** project is one of the most supported actions included in the "Arrecife. Capital of the Biosphere Reserve Plan", which aims to implement the environmental and social ambitions of an island that is a biosphere reserve and incorporate them into the urban planning of its capital, Arrecife. The project was a finalist in the Architizer awards and received an award at one of the International Federation of Landscape Architects (IFLA) congresses. It is an example of how to link hitherto unconnected urban components such as sustainable water infrastructure and public space. The project has also helped to deal creatively with the floods that affect the city every year, due to the fact that its growth did not take old run-offs into account, and to restore the value formerly given to water, which, as in all arid areas, was considered a scarce and valuable resource that had to be collected and stored in cisterns and maretas (water reservoirs).

Forty bio-corners are planned to be distributed throughout the city and its neighbourhoods, of which two have been designed.

The general budgets for the Autonomous Community of the Canary Islands included several items for developing the project's strategy and some of the items in it: bio-corners and *Plaza Zonzamas.*

PROCEDURE

The "Arrecife. Capital of the Biosphere Reserve" project was **presented in 2016** before the Council of the Biosphere Reserve.

The Resolution of May 7, 2019, of the Port Authority of Las Palmas, published the Agreement with the Island Council of Lanzarote, to build, maintain and conserve an urban park in Puerto de Naos (Port of Arrecife), as part of the "Arrecife. Capital of the Biosphere Reserve" project. During this time, specific actions were carried out, including two of the forty planned bio-corners.

The Government of the Canary Islands, the Island Council of Lanzarote and Arrecife City Council, under the technical direction of the Biosphere Reserve Office and with the assistance of urban architect Juan Palop-Casado, have worked together on the project.

REGULATORY FRAMEWORK

The Government of the Canary Islands is currently in the process of drafting a **Law on Climate Change**, which will be followed by a law on circular economy and another on biodiversity, with which this plan for the city of Arrecife is intended to be aligned.

Initially planned as part of an integrated strategy for the city, the project is being developed by incorporating its principles and initiatives into Arrecife's Supplementary General Plan, which is currently being drafted. Some actions such as the Caminos del Agua will be developed with specific Master Plans. Finally, it also includes the direct implementation of technical projects that are compatible with the current planning: bio-corners, Plaza Zonzamas, etc.

ASSESSMENT

LESSONS LEARNED

The project shows that it is possible to implement urban solutions to current problems by analysing the territorial context and the cultural traditions of the territory. The nature-based solutions that are currently being proposed as innovative responses to the effects of climate change do not always have to come from innovative technologies or proposals; sometimes the answer lies in analysing and studying the territory and how the inhabitants have interacted with nature throughout history. Consequently, the **environment** becomes the guiding vector of urban planning and not an issue to be solved with corrective measures after the fact.

GOVERNANCE AND TRANSFERABILITY

The proposal as a plan and individual measures can be perfectly replicated to solve similar situations in other territorial contexts, particularly in southern and coastal areas.

SUSTAINABILITY

All of the projects included in the plan are sustainable solutions in themselves, from an environmental perspective, and respond to the problems of climate change and contribute to mitigating its effects, including social aspects, by promoting citizen participation and training, and economic aspects, as a development proposal for the city that aspires to be the **Capital of the Biosphere Reserve.**

Fig. 7. Lanzarote.

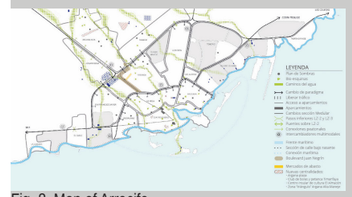


Fig. 8. Map of Arrecife.

Fig. 9. Arrecife, capital of the biosphere reserve. Work meeting.

Fig. 10. Arrecife. Bio-corners (1).

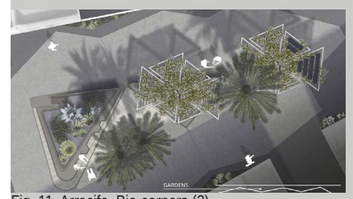


Fig. 11. Arrecife. Bio-corners (2).

DATA

LOCATION
Gandia, Valencian Community.

ACTORS
· Gandía Town Council.
· Valencian Regional Government,
· European Union (European Social Fund).
· Responsible Management of the Territory of Gandía.
· Servef. Valencian Employment and Training Service.

DATES
· 2007: Start of the Gandia Green Belt.
· July 2015: Design of new urban pathways.
· 2015-2018: Employment workshops.

AREA OF ACTION
50 kilometres of urban pathways with a circular route in the peri-urban environment of Gandia.

SOURCES
Gandia Town Council:
https://sendesurbanes.gandia.org/es/inicio/
Urban pathways:
https://www.urbalabgandia.com/es/proyectos/

PHASE
In the implementation phase

SUMMARY

"Urban Pathways in Gandia: all shades of green" is a project promoted by Gandia Town Council that has arisen as a complement and culmination of the Green Belt programme, which is aimed at **connecting the different natural enclaves** with a scenic and environmental value, both to each other and to different parts of the town centre of Gandia. Connecting the centre to the surrounding countryside ensures that the gradual transition from urban to rural environment is as integrating as possible.

The pathways are configured as **nine routes** that are designed to be easily accessed by the entire population and thus provide universal access to knowledge about the area's natural values.

OVERVIEW

OBJECTIVES

The main objective of this wide-ranging project is to create a network of pathways and walkways that connect the town to rural and natural environments from different geographical points. In this way, in perfect alignment with the Goals of the Spanish Urban Agenda, this project aims to **improve green and blue infrastructures** and link them to the natural environment.

In order to achieve this general goal, the project strategy was aimed at making use of pre-existing roads and pathways, improving them and re-routing them. To this end, the following specific objectives were set:

- Link the Gandia Green Belt to the town itself by means of "urban pathways", making the gradual transition from the town to the rural environment as integrating as possible.

- Create properly defined and signposted, accessible and safe routes for all those who wish to make use of the urban pathways.

- Make use of existing synergies, such as the so-called "cholesterol routes", paths that are already signposted and those that meet the objective, by assigning thematic interpretative content to each route, which will act as a common thread along the route.

- Prepare dissemination material so that people know the exact route, length, alternatives along the route, estimated time, and interpretative content before taking the route.

- Raise public awareness about the importance of environmental values, through their knowledge and involvement by making them their own.

- Ensure that peri-urban spaces can be used to integrate the art of the town with nature and the territory.

- Create a **new complementary tourist offer**, which exposes visitors to the biodiversity in an around Gandia.

- Use the pathway network as a means of environmental education.

- Create a nature-based economy and a more sustainable model for the territory.

BACKGROUND

The municipality of Gandía benefits from a natural environment with important biological and scenic features. There are several areas of high environmental quality close to the town of Gandia. The proximity of these natural spaces made it necessary to take integrated action to prepare, restore and recover all those areas that were in a very run-down condition.

Therefore, it was necessary to recover and enhance the natural value of these peri-urban areas. The strategy that made this action possible also recovered disused or poorly preserved walkways and pathways to create a network of accessible, signposted, high quality footpaths to configure nearby spaces for public leisure and discovery, and to develop a tourist product of interest to visitors.

DESCRIPTION

The project is part of the **Gandia Green Belt programme**, which is aimed at creating a perimeter around the town that includes areas of great ecological and scenic value. The Gandia Network of Urban Pathways is made up of 9 short routes that connect the town to its closest rural and natural environments. The nine Urban Pathways that make up the project are: Falconera-Les Roques; the l'Auir dunes; Venecia Beach, Grau and the sea; Ullals; Castell de Bairén; Riu Serpis; Benipeixcar; Santa Anna; Les Aromes.

In essence, they are simple circular routes, with very gentle slopes, easy to access and walk on, where there is a gradual transition between urban, rural and natural landscapes. The setting for this network of paths is peri-urban, a living environment that citizens have traditionally travelled through. The deterioration of part of these environments over the decades meant that action had to be taken to initiate a process of environmental adaptation and improvement, naturalisation, restoration of the landscape and signposting for each of the pathways that make up the network.

In addition to **publicising and enhancing the value** of the natural areas near the town, the aim is to involve the public in conserving them, to satisfy a growing demand for public spaces for leisure and sport and, above all, to respect and enjoy nature from a different perspective.

RESULTS

With a total length of **approximately 50 km**, the pathways that make up the network run along old paths that already existed in Gandia. Each of these routes has a thematic content in terms of flora, fauna and points of interest to visit just a stone's throw from the town. The pathways start from various points in the town and are particularly easy to access.

Fig. 1. Benipeixcar Urban Pathway. Yellow Urban Pathway.

Fig. 2. Photograph of part of Gandia.

Fig. 3. L'Auir Urban Pathway. Brown Urban Pathway.

Fig. 4. Venecia y el Grao Urban Pathway. Blue Urban Pathway.

Fig. 5. Ullals Urban Pathway. Green Urban Pathway.

Fig. 6. Bairén Castle Urban Pathway. Purple Urban Pathway.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.3 Improve green and blue infrastructures and link them to the natural context.

1.1 Plan land use in a way that is compatible with its territorial environment.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.3 Improve the overall quality and accessibility of public spaces.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

They are simple circular routes, with very gentle slopes and easy to walk on:

- Brown Pathway: it runs down to l'Auir beach, one of the few unspoilt beaches on the Valencian coastline that has a dune system that is still intact. A linear walk through the different parks and green spaces in the Gandia beach area.

- Blue Pathway: shows the importance of the **sea and the river**, with all the living things that surround them, in the municipality of Gandia. The route starts in Grao de Gandia in the direction of the mouth of the River Serpis, an environment of great ecological value that acts as a transition zone between fresh and salt water.

- Green Pathway: named after the emerald colour of the water in Els Ullals. A circular route located in the north of the town, which starts in the Joan Fuster Park and continues along a green landscaped path that takes us to l'Alqueria del Duc, a natural treasure, hidden among orange trees, and considered to be the natural green lung of Gandia.

- Purple Pathway: the same colour as Gandia's flag. It is a linear route that starts in the Parc de l'Alquería Nova. The first urban section continues along rural paths through small wooded areas until it reaches a stony path that leads to **Bairén Castle**, located at the top of Sant Joan hill.

- Turquoise Pathway: the pathway runs along the banks of the River Serpis as it passes through Gandia. Two dirt paths adapted for pedestrians along the banks of the river to explore this natural space and its influence on the historical configuration of the town.

- Magenta Pathway: it runs along paths and forest tracks in Mount Santa Anna and is known for its **great biodiversity of vegetation**. The Santa Anna Chapel is one of the best preserved in the city, gives its name to the area and offers exceptional panoramic views. The actions carried out with European ERDF money within the URBAN Plan (2007-2013) have made it possible to recover this area of the town. The work carried out includes the construction of the peri-urban park on Mount Santa Anna and improvements to the accesses to the town, with the creation of new roads for pedestrians and vehicles.

- Orange Pathway: this is probably the best route for discovering the orography of the municipality, which dominates and frames the landscape of the town with the peaks of Mondúver and Molló de la Creu. A route along **rural dirt and gravel roads** which is ideal fto learn about the geology, geomorphology and the processes involved in modelling the landscape around the town.

- Red Pathway: this is a circular route that starts in the Parc de Joan Fuster and continues to the Barranc de Sant Nicolau, in the Grau de Gandia. A large part of the route is bordered by aromatic plant communities with species such as thyme and rosemary.

- Yellow Pathway: this walkway runs mostly along compact dirt tracks with areas of loose gravel at some points and stretches of urban roadway. It is a walk that runs through an orchard area very close to the town centre of Gandia, with an agricultural landscape and a diversity of flora and fauna typical of the River Serpis, which features various species of gigantic trees.

PROCEDURE

Following the idea of the Gandia Green Belt project in 2007, in July 2015, a network of paths called the Urban Pathways of Gandia was designed with the aim of linking the different natural enclaves of Gandia.

However, with the decline of the natural areas, it became apparent that the degraded areas needed to be restored and made accessible to everyone. Consequently, it was decided that all of the environmental improvement actions and actions to promote tourism for configuring the network would be carried out by unemployed people, who would receive training workshops. In total, four employment workshops were held: the first one started in October 2015 and ended in July 2016; and the others lasted exactly one year - the second one, ran from December 2016 to December 2017; the third one, from December 2017 to December 2018; and, the fourth one, from December 2018 to December 2019.

Therefore, the project started with the launch of the workshops in 2015 and **is still active today.**

ASSESSMENT

LESSONS LEARNED

The lessons learned include the combination and compatibility of carrying out the refurbishment and restoration of dilapidated areas with the creation and implementation of Employment Workshops, so as to improve and promote the employment prospects of unemployed people by carrying out works or services of a general and/or social interest in order to acquire a professional qualification which would increase their chances of finding employment.

Consequently, as well as providing training and work to people who need it, this labour was used to carry out the Urban Pathways project.

GOVERNANCE AND TRANSFERABILITY

One of the most interesting aspects of this initiative was the social nature that defined the project from the outset. In order to restore the existing dilapidated trails, it was decided to work with the town's unemployed community.

Therefore, a team of people was created from a mix of employment and training programmes. Consequently, the result of the project was not only to improve the town's environmental and scenic qualities, but also to **increase the employability** of unemployed people aged 25 and over, with the aim of facilitating their integration into the labour market by combining training with work. These people took courses on gardening, public works, environmental monitoring and graphic design. These Employment Workshops will be co-funded by Servef and the European Social Fund.

Participants were responsible for carrying out the work, which consisted of planting trees, bushes and native species. This work of **recovering and protecting biodiversity** was complemented by installing equipment, improving access points and signposting and creating rest areas.

SUSTAINABILITY

The project clearly responds to the three cornerstones of sustainability and is perfectly in line with the goals of the Spanish Urban Agenda. This is demonstrated from an environmental perspective, with the recovery of natural heritage and a very important landscape, and from a social perspective, by promoting employment and training and contributing to improving the quality of life of citizens by creating healthy, safe, accessible routes. It also applies from an economic point of view, setting up the initiative as a sustainable alternative tourist attraction for the town's visitors.

In short, it is a commitment to a town model by and for everyone, in which **social inclusion and environmental and landscape** issues are the key points of reference when it comes to intervening and acting in the project.

Fig. 7. Example of an employment workshop promoted by the Urban Pathways project.

Fig. 8. River Serpis Urban Pathway. Turquoise Urban Pathway.

Fig. 9. Santa Anna Urban Pathway. Magenta Urban Pathway.

Fig. 10. Falconera-Les Roques Urban Pathway. Orange Urban Pathway.

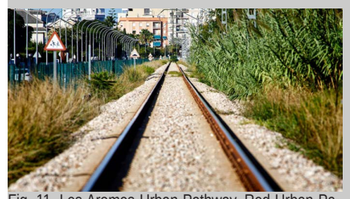


Fig. 11. Les Aromes Urban Pathway. Red Urban Pathway.

CITY MODEL

2 STRATEGIC GOALS AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

SPECIFIC GOALS

2.1. DEFINE AN URBAN MODEL THAT PROMOTES COMPACTNESS, URBAN BALANCE AND THE PROVISION OF BASIC SERVICES.
- Madrid Nuevo Norte (Operación Chamartín).
- Green City Block in Malaga.

2.2. ENSURE FUNCTIONAL COMPLEXITY AND DIVERSITY OF USES.
- Action in the Hospital neighbourhood, Oviedo.
- El Partidor: urban regeneration action in Alcoy.

2.3. ENSURE THE OVERALL QUALITY AND ACCESSIBILITY OF PUBLIC SPACES.
- Accessibility Plan for Jerez de los Caballeros.
- Accessibility plan for Castellón.

2.4. IMPROVE THE URBAN ENVIRONMENT AND REDUCE POLLUTION.
- Urban GreenUP in Valladolid.
- Urban Forest Innovation Lab in Cuenca.

2.5. PROMOTE URBAN REGENERATION.
- Sestao Berri. Urban Regeneration.
- Urban regeneration in the San Cristobal neighbourhood.

2.6. IMPROVE THE QUALITY AND SUSTAINABILITY OF BUILDINGS.
- Kairós Project for the town of Mula.
- Restoration of the former abattoir in Madrid.

DATA

LOCATION
Madrid.

ACTORS
· Current Ministry of Transport, Mobility and Urban Agenda through ADIF.
· Autonomous Community of Madrid.
· Madrid City Council.
· Distrito Castellana Norte (DCN, a BBVA and Grupo San José company).
· Various social actors (neighbourhood associations such as Plataforma Zona Norte).

DATES
· 1993: the first proposal was made following a competition to transform Chamartín station.
· 1997: the new Madrid General Urban Development Plan incorporated the project and extended its scope.
· 2013: the High Court of Justice cancelled the urban development plan.
· 2019: the Madrid Nuevo Norte project was approved.

AREA OF ACTION
235,745 Ha.

SOURCES
Northern Castellana District
https://distritocastellananorte.com/

PHASE
At the start of the implementation phase

SUMMARY

Madrid Nuevo Norte is one of the urban development projects with the greatest potential impact on the city in recent years. The process began in 1993 under the name Operación Chamartín but, after many ups and downs, it was finally approved in 2019. Work is expected to start in 2021 and last until 2044. In short, it consists of a major **urban regeneration** project in the Madrid area between Chamartín metro station and the M-40 (about 5.5 kilometres long) which also attempts to resolve the urban separation caused by Chamartín station and its complex railway system.

Chamartín station is the infrastructure on which the whole project is structured. A large part of the proposal is based on the design of a new public transport system in the area, which is efficient and adapted to current needs, and the creation of a system of green areas to provide the backbone of the project. It envisages the creation of some 10,500 dwellings, with an important business area and a commitment to a mix of uses to promote a more social and local urban habitat. The opinions of residents of nearby areas were taken into account when defining and locating the various facilities and services. Among other things, this project aims to significantly change the way in which Madrid's citizens move around. Part of the complexity of the project lies in the large number of actors involved: the Ministry of Transport, Mobility and Urban Agenda together with Adif (which is the main owner of the land), the Community of Madrid, the City Council and the concessionaire company, Distrito Castellana Norte (DCN), a company owned by BBVA (76%) and Grupo San José (24%).

OVERVIEW

OBJECTIVES

The many aims and objectives set for a project of this magnitude include the following:

- Regenerate one of the city's most important urban districts, which is heavily impacted by the Chamartín station railway system.

- Integrate this neighbourhood into the central hub of Madrid.

- Improve the existing **urban mobility** system in Madrid, by creating an infrastructure that prioritises the use of public transport.

This is all based on an integrated, cross-cutting vision and special attention has been paid to the gender approach. In short, create a new urban environment adapted to the social, economic and environmental needs of the 21st century by implementing an energy model for decarbonisation and supporting the circular economy.

BACKGROUND

Since its inauguration in 1967, the **Madrid Chamartín railway complex** has strongly influenced the development of the Chamartín district in the north of Madrid. This sector grew throughout the 20th century from isolated projects contingent on the railway system that connected the capital with the north west of the Iberian Peninsula through this station. Several factors have prevented the district from following an orderly urban growth pattern. It is crossed by the Paseo de la Castellana, which splits it in two, and further split by the M30 to the north, and is topped by the railway station in the middle of three large plots of land. This accumulation of problems makes this Madrid neighbourhood one of the most complicated in terms of urban planning, but also an opportunity for development within the consolidated city.

DESCRIPTION

This urban plan is in the northern district of the capital. The project was launched in 1993 with the aim of connecting the northern neighbourhoods and regenerating the dilapidated urban space around Chamartín station and its railway infrastructure, under the name **Operación Chamartín**, and, since it began, it has been a complex project due to the multitude of actors involved in the decision-making process and the difficulty of the project itself.

As a result, it has undergone many transformations over the decades. Finally, on March 25, 2020, the Madrid Governing Council gave the green light to the project. To date, it is the largest **urban transformation** operation in a European capital city in the 21st century. It has received investment of 6 billion euros and is expected to create more than 100,000 jobs. The project covers about 236 hectares of land. Broadly speaking, the buildable area of the project has been divided into 105 hectares for residential use and 130 hectares for tertiary and mixed use.

It is planned that around **10,500 homes** will be built in this new neighbourhood, 20% of which will be social housing. One of the central initiatives of the project is the renovation of Chamartín station, which will also entail almost completely covering the tracks themselves, the installation of three new metro stops and an additional suburban train station in the district of Fuencarral, as well as the extension of the Norte and Fuencarral road junctions. Therefore, it is a project that will attempt to transform urban mobility in the north of Madrid.

The project also includes the creation of a business centre, the so-called Madrid city of offices complex, which includes several high-rise towers and skyscrapers, one of which will be the tallest in Europe at more than 330 metres high. In addition, the project's 10,500 new homes will be distributed around a system of green areas (about 400,000 m2) with a central park of 13 hectares.

According to various sources, the project will cost public administrations around 2 billion euros, which in turn will generate an economic return of almost 4 billion euros in taxes alone.

RESULTS

At this stage it is not possible to analyse empirical results from the project because the implementation phase has not yet started.

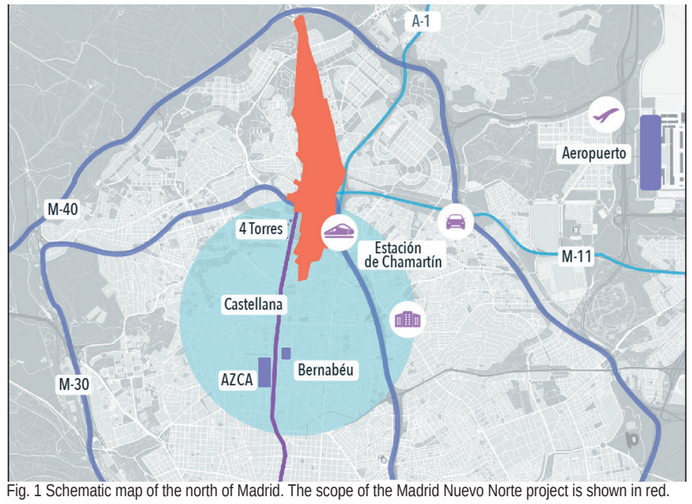


Fig. 1 Schematic map of the north of Madrid. The scope of the Madrid Nuevo Norte project is shown in red.

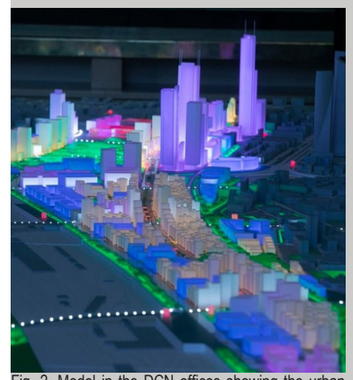


Fig. 2. Model in the DCN offices showing the urban development plan for Madrid Nuevo Norte.

Fig. 3. Photograph of the current Chamartín train station.

Fig. 4. Photograph showing the current state of part of the area of action.

Fig. 5. Madrid Nuevo Norte. Front page of the new urban regeneration proposal.

Fig. 6. Map of new uses identified for the urban regeneration project.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.2 Promote sustainable means of transport.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

However, the media activity and creative work that Distrito Castellana Norte (DCN), the body in charge of taking the project forward, is carrying out is worth mentioning. It has led to an open debate in which many current urban issues are being addressed, which will define the characteristics of the project itself. In this way, DCN has already addressed topics such as the challenge of the circular economy, the decarbonisation of European cities, new ideas on sustainable mobility, the search for energy innovation in the fight against climate change and the value of biodiversity in cities.

PROCEDURE

In 1993, the first proposal emerged when Renfe and ADIF launched a competition to create a **new station and offices**. In order to make progress in implementing it, the new Madrid General Urban Development Plan 1997 incorporated the project and extended its scope. In about the year 2000, several former owners of the land filed a claim to revise the value of the expropriated land, slowing down the progress of the project. In 2002, an amendment to the General Plan was approved to increase the buildable area in the project area, but the proposal was halted in 2004 due to lack of agreement. In the end, the Spanish National Court rejected the revision of the expropriation value in 2009 and two years later, in 2011, the City Council was able to approve the Partial Interior Reform Plan so that the works could begin, but in 2013, the High Court of Justice cancelled the urban development plan for non-compliance with article 39 of the Land Law. A new project called Distrito Castellana Norte was submitted in 2015.

The revision of the plan in 2016 by the new government reformed the project and it was renamed Madrid Puerta Norte. However, it did not come to fruition because it did not have the support of Distrito Castellana Norte (DCN) or ADIF (which challenged the new project in favour of the previous one). In the same year, the regional government together with DCN filed a complaint in the High Court of Justice for having rejected the previous project. The Ministry of Development tried to bring together the various actors and, in 2017, managed to sign a pre-agreement with Madrid City Council and DCN to lay the foundations for a future joint venture (which would be Madrid Nuevo Norte). The final agreement was reached in 2018 and, that same year, the Governing Board of Madrid City Council approved the amendment to the General Plan allowing the project to be carried out, and it was approved in 2019. It is planned to start in 2021 and end in 2044.

The project was promoted by ADIF and the developer Distrito Castellana Norte (DCN) is in charge of executing it. DCN will be in charge of **managing the urban development operations** for the entire project. ADIF will be responsible for renovating Chamartín train station, the Fuencarral suburban stations and covering the railway tracks and infrastructures. The City Council will be responsible for remodelling and improving the north junction of the M30, remodelling the Fuencarral junction, the end of Castellana and expanding the Valdebebas sewage treatment plant.

REGULATORY FRAMEWORK

The framework under which the Madrid Nuevo Norte urban action has been developed is the Madrid General Urban Development Plan.

ASSESSMENT

LESSONS LEARNED

Pending the implementation of the project and the subsequent analysis of the results, this almost 30-year urban development plan shows the difficulty involved in moving forward with a plan in which a **large number of different actors** are involved. Now that the project has started to be implemented, it can be said that interventions of this magnitude can only be successfully implemented if there is an **open dialogue** between all parties involved. The success of these urban transformations depends on the ability of the proposal itself to respond to the simultaneous interests of the developers, the various public administrations and the social actors.

The fact that agreement has been reached after several decades shows a potentially more positive direction for the urban future. The direction in which the transformation of the city is heading in the 21st century with this project is an example to follow. Issues such as giving priority to pedestrians and prioritising public transport over private vehicles are clear examples of this direction. It is a commitment to a heterogeneous urban fabric where uses are intermixed, creating a balanced and proportionate public space.

GOVERNANCE AND TRANSFERABILITY

Since the project was finally approved, Distrito Castellana Norte has been taking part in a number of participatory **forums and spaces** in which to debate the urban challenges of the 21st century. On its own initiative, it has organised conferences and round tables such as “Circular economy in new urban planning” and the project was presented at others such as “Madrid Zero Emissions. Climate Commitment” and at the “Conama 2020 National Environmental Congress”. In addition, DCN is collaborating on the “Sustainable Cities 2030” project, an initiative that seeks to promote public and private collaboration to develop more sustainable cities. In fact, DCN registered the Madrid Nuevo Norte project for BREEAM and LEED certification, thereby ensuring its commitment to environmental, social and economic sustainability.

Implementing this project has required the involvement of a number of institutions and **private and public actors** over the almost thirty years of this plan. The most important actors have been the developer Distrito Castellana Norte (DCN), ADIF (Ministry of Development), Madrid City Council and the regional government. Distrito Castellana Norte’s shareholders are: BBVA (75.54% of the capital), Merlin (14.46%) and Grupo San José (10%). The total investment in Madrid Nuevo Norte has been estimated at just over 7 billion euros, of which about 2.8 billion euros will be allocated to new infrastructure in the area.

This is in addition to investment in public facilities and equipment, which totals about 488.2 million euros, and investment in the construction of buildings, estimated at 4.022 billion euros.

SUSTAINABILITY

In principle, this urban plan will transform the urban landscape for the good of citizens, closing the railway gap in the north of the city and giving the northern district of Madrid greater cohesion, while moving towards a more efficient and sustainable city. DCN’s commitment to making Madrid Nuevo Norte a project that takes on the **social, environmental and economic challenges** of the 21st century is real. Although it is not yet possible to analyse results, the principles on which this urban intervention is based are encouraging.

Issues such as reducing the carbon footprint, the need to redirect the city towards environments with a more complex mix of uses, the challenge of promoting more sustainable mobility and planning with citizens as the main protagonists of the city are included in this project. On an environmental level, knowledge of ecological principles that determine the scope of the project itself can also be seen.

These issues, which for the moment are only proposals, will have to be analysed once the project has been implemented in order to check whether urban transformation is indeed capable of providing a more sustainable urban model.

Fig. 7. Image that attempts to represent the future of Madrid Nuevo Norte.

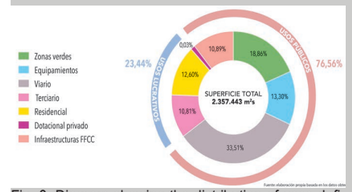


Fig. 8. Diagram showing the distribution of uses defined for the regeneration project in percentage terms.

Fig. 9. Representation of a street in Madrid Nuevo Norte.

Fig. 10. Representation of part of the green area of the new urban sector.

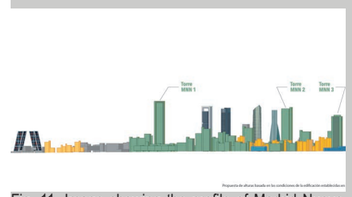


Fig. 11. Image showing the profile of Madrid Nuevo Norte, where a mixture of heights is proposed.

DATA

LOCATION
Malaga, Spain.

ACTORS
· Malaga City Council.
· Urban Environment Observatory (UEO).
· Municipal Urban Planning Department.
· Municipal Housing Institute (IMV Spanish acronym).
· Citizen participation area.

DATES
· 2013: Analysis of 4 potential sites with a number of suitable development characteristics for the Green City Block project.
· 2017: Call for proposals for constructing 12 residential buildings and public spaces.
· 2018: Publication of the book 'La manzana verde, Nuevas formas de habitar' (Green city blocks. New ways of living).
· 2019: Malaga launches the first phase of the eco-neighbourhood.

AREA OF ACTION
93,929 square metres.

SOURCES
Malaga Urban Environment Observatory:
https://www.omau-malaga.com

PHASE
In the first phase of implementation.

SUMMARY

The Malaga Green City Block started as a pilot project for applying the experimental methodology developed by CAT-MED, which sought to reflect ecological, efficient and energy-saving constructions, while at the same time meeting the requirements of compactness and complexity of uses that characterise the project and which also combine private housing with subsidised housing, making it an urban laboratory.

It can be considered a new type of comprehensive, integrated urban planning which, together with the classic references to land use planning, includes issues related to managing natural resources, energy efficiency, sustainable mobility and social cohesion, as a result of the city's Urban Agenda. It is configured as an estate of about 90,000 square metres, where ordinary road traffic is peripheral, as it is in superblocks.

OVERVIEW

OBJECTIVES

The aim of the Green City Block is to help create a t**erritorial model**, on a sustainable planning and building level, that contributes to social integration, mixing residential, commercial, tertiary, and community facilities and green areas, while integrating energy efficiency systems, water consumption savings, optimal waste recovery, and incorporating information and knowledge technologies (R&D&I).

Its proposals include developing a bioclimatic building, in an environment of green areas, that is energy efficient, that contains the diverse uses that a city has –residential, commercial, tertiary and equipment– and that includes new energy capture and waste recovery technologies in its design. It is also committed to being a compact city model, with a mix of uses and proximity to basic services, encouraging each sector of the city to be self-sufficient.

In the words of the General Manager of the UEO, Pedro Marín, the green city block is a pilot project that "aims to be a real example of how to intervene both in developing a sustainable area or neighbourhood and in making it a reality by constructing a building".

One aspect of this project that should be highlighted is the fact that, in the same area and within the same building, private housing will coexist with other subsidised housing, thereby fostering social cohesion, which is an essential element of the project's sustainability, as it is a priority objective of the urban model of a **sustainable city**.

BACKGROUND

The particular characteristics of the area where the Green City Block proposal is planned involve the difficulty of rebuilding an area with obsolete uses and the **need for complete urban redevelopment**, including a new boulevard over the old underground railway tracks. The area known as "El Duende" was the peripheral area of the city until the 1980s.

The urban renewal works and the infrastructures and services developed between the 1980s and the present day have significantly improved the quality of life in the area, but the consolidation of the built-up area has left few alternatives for new developments.

DESCRIPTION

The UEO, in collaboration with the Municipal Urban Planning Department, the Municipal Housing Institute (IMV) and Malaga City Council's **Citizen Participation** Department, has designed a project in which 923 homes will be built using bioclimatic criteria, with the added novelty that private housing will coexist with other subsidised housing in the same building in a quest for social cohesion.

Under the project, the interior of this sustainable neighbourhood will be predominantly pedestrianised and parking will be underground to avoid cars on the surface.

In addition, a study will be carried out to ensure that basic services are available as close as possible. Promoting **public transport** will also be a priority and to this end, communication nodes have been set up at different cardinal points in the neighbourhood to try to dissuade residents from using private cars.

Open spaces and green areas will form an essential part of the city block, as attractive, safe, quality meeting points, and may include children's play areas, ecological gardens, recreational areas, etc. Some of these spaces would be located between the buildings with the aim of creating both communal and public open spaces. The Green City Block includes 35,000 square metres of green areas and 5,240 square metres of public facilities.

The final development of the land will be done by means of a special plan, which will configure the distribution of buildings, roads and infrastructures in accordance with the General Urban Development Plan, given that 3,200 homes are planned for the coming years in this area close to the San Rafael industrial estate.

In terms of housing and its design, a competition was planned to design the first 5 buildings containing 319 homes. The projects had to integrate private and subsidised housing, as per the Special Interior Reform Plan.

The winner was the Al Sur Project, the main objective of which was to combine the Mediterranean city as a **traditional model with the latest advances in energy efficiency**. It is also worth noting the passive operation of the buildings, based on parameters such as their climatic and geographical orientation, making them more efficient and energy-saving, along with the materials with environmental qualities and renewable energies used to fit them out.

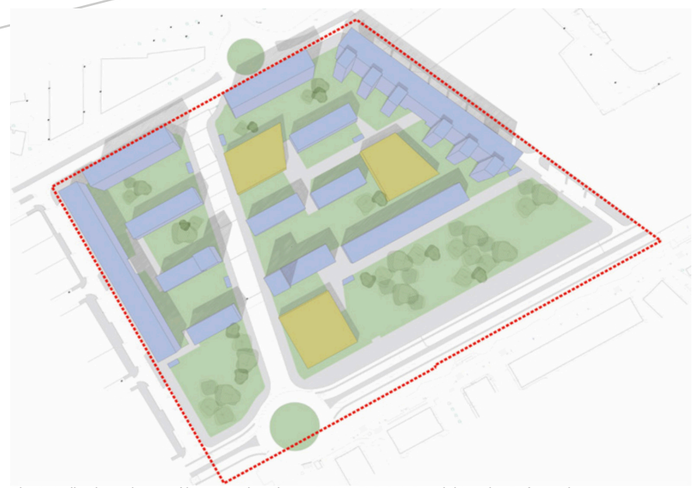


Fig. 1. Indicative scheme of layouts. Plan views. SUNC-R-P 2-A Special Interior Reform Plan.

Fig. 2. Al Sur, the winning project. Designers: José Luis Daroca, Jaime Daroca y Ramón Sierra and Gómez de León.

Fig. 3. Estratos Activos (Active strata), the runner-up project. Designers: Langarita Navarro Arquitectos SLP.

Fig. 4. Vertical garden city project. Designers: Rafael Urquiza Sánchez.

Fig. 5. Spartan project, fourth place Designers: SV60 Arquitectos SL.

Fig. 6. Ese project, fifth place. Designers: Juan Pedro Romera and Miguel Campos González.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

RESULTS

The City Council has already put out the tender for the technical assistance contract for drafting and managing the urban development works for the first phase of the eco-neighbourhood.

One problem they have to solve is the release of this municipal land, where the Municipal Transport Company (EMT by its Spanish acronym) facilities and the municipal headquarters of the Operational Services are currently located.

The first success of the project was the **high level of participation** in the competition for ideas to define the green block, in which more than 100 proposals were received.

The neighbourhood as a whole is designed to house twelve residential buildings, with a capacity for 963 homes (803 social housing units).

The construction projects for the first five buildings, which make up the first phase of the project, have been awarded, and are expected to contain **319 homes**, of which 279 will be subsidised and 40 private. The teams contracted to carry out this work were the winners of the architectural competition.

PROCEDURE

In 2011, a **Special Interior Reform Plan** was promoted for the Green City Block, which is now continuing its progress to towards introducing a new, more sustainable and social urban planning model into the city, according to a statement from the City Council.

In 2013, 4 potential sites with a number of suitable development characteristics for the Green City Block project were analysed.

In 2017, a public tender was opened for implementing part of the Green City Block project. The scope of the competition covered the 12 residential buildings and public spaces, and proposals could not be submitted for a single block.

In, 2018, the book 'La manzana verde, Nuevas formas de habitar' (Green city blocks. New ways of living) was published. And in 2019, Malaga launched the **first phase** of the eco-neighbourhood.

REGULATORY FRAMEWORK

RELATED POLICY AND LEGISLATION

The current regulations that act as a framework for this good practice are mainly the Malaga General Urban Development Plan, which was approved in 2011, and the Andalusian Urban Development Law (LOUA by its Spanish acronym).

SECONDARY PLANS

The Malaga Green City Block project will be implemented by means of a Special Plan for the Green City Block.

ASSESSMENT

LESSONS LEARNED

The Green City Block seeks to combine the best of classic **Mediterranean** cities, compact buildings, the complexity of uses and functions, and the proximity of basic services, with information technologies and advanced energy efficiency and waste treatment tools typical of the 21st century.

In social terms, we can talk about **empowering the community**, which is committing to a better quality of life based on criteria of sustainability and seeking to recover the characteristics of a traditional Mediterranean city, but updated and adapted to the circumstances and challenges of the 21st century.

GOVERNANCE AND TRANSFERABILITY

This is a project of Malaga City Council's Urban Environment Observatory (UEO), which is an innovative pilot project from the point of view of sustainability and in relation to the urban model defined by CAT-MED, resulting in a better quality of life for the entire population of the area where it will be located.

The proposal resulted in the publication of the book 'La manzana verde, Nuevas formas de habitar' (Green city blocks. New ways of living). It is a document that explains the determining factors for developing the Green City Block and making the project more accessible to the population.

One of the obstacles that this pioneering project will have to overcome in order to become a reality is the financial side of the project. The initial idea is to launch a tender for a private entity to carry out the UEO project, and then make a profit from the sale or rental of the homes.

According to the **Methodological Guidelines**, municipal investment included the transfer of the old infrastructures located on this land, carrying out the urban development works, the construction of open spaces and the infrastructures for connecting the area's networks to the municipality's general networks, and the construction of local public facilities included in the area of the action.

In terms of human resources, Malaga City Council has technical, administrative and economic resources such as Malaga City Council's Municipal Urban Planning, Works and Infrastructures Department, which is carrying out the project together with CAT-MED.

SUSTAINABILITY

The Malaga Green City Block project demonstrated the need to promote **experimental urban projects** that are part of a cross-cutting approach and which, because of their urban sustainability objectives such as improved social cohesion (a priority objective of the sustainable urban city model), will shape the Mediterranean city of tomorrow.

The Green City Block project would develop innovative elements in terms of energy saving and efficiency, the capture of renewable energies and waste treatment, together with sufficient density and compactness, and a mix of uses that is part of the urban complexity.

At the same time, it would include housing bought on the market (private housing) and housing with public subsidies to fund them (VPO), a feature that differentiates the Green City Block from other projects where energy efficiency is the only issue considered.

The special plan for the Green City Block introduces a system of **indicators** that brings planning proposals closer to sustainability criteria.

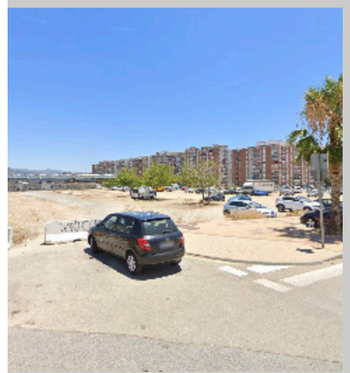


Fig. 7. Current state of the plot where Malaga's most sustainable neighbourhood is planned.

Fig. 8. Location of the Green City Block, Malaga.

Fig. 9. Zoning proposal. SUNC-R-P 2-A Special Interior Reform Plan. Public information document. April 2014.

Fig.10. Sections of the Green City Block.

Fig. 11. Current state of the plot where Malaga's most sustainable neighbourhood is planned.

DATA

LOCATION
Oviedo, Asturias.

ACTORS
· Government of the Principality of Asturias.
· Oviedo City Council.
· Treasury of the Social Security.
· Ministry of the Interior.
· Ministry of Finance.
· University of Oviedo.
· UTE HUCAMP ARQUITECTOS joint venture.

DATES
· In June 2014, the Central University Hospital of Asturias (HUCA) moved to a new location.
· In April 2016, Oviedo City Council issued an Action Protocol setting out the Guiding Principles for planning.
· Between September 2016 and January 2017, the HUCA Plan was implemented, as a participatory process.
· In April 2017, the international competition to transform the derelict urban area opened.
· In October 2017, the competition was won by the proposal "HUCAMP! La Campa de Todos" (An open space for everyone).
· In March 2019, the Partial Revision of the Oviedo General Urban Development Plan was published.

AREA OF ACTION
Urban area of the former HUCA (23 hectares).

SOURCES
HUCAMP! La campa de Todos website:
https://www.walk-al.com/hucamp

PHASE
In the planning phase.

SUMMARY

In 2014, the Central University Hospital of Asturias (HUCA) left its facilities in Oviedo and moved to the outskirts of the city. This left a large urban space within the city unused and with underutilised infrastructure. The Government of the Principality of Asturias, in collaboration with Oviedo City Council, has promoted the search for another use for this area to convert it into a new neighbourhood that can reconnect with the rest of the urban fabric of Oviedo.

The general aim of this project is to **transform the area** of the former grounds of the Central University Hospital of Asturias into a new city district. After several years of consultation and public participation processes, an international competition was launched in 2017 to select an idea for the future.

The winning project was HUCAMP! which, in general terms, opted for creating a large public green area that would structure the whole neighbourhood and provide continuity to the rest of Oviedo's urban system. The project is currently in the planning phase, pending the Partial Revision of the Oviedo General Urban Development Plan, which will make it possible to renovate the specific urban space.

OVERVIEW

OBJECTIVES

The general objective of the plan is the **urban transformation** of the area of the former grounds of the Central University Hospital of Asturias in Oviedo. The specific objectives are to increase the diversity of uses, combining residential with other urban functions. To this end, it is planned to make this urban space, which is currently abandoned, more complex and diverse in terms of its uses.

The project that won the ideas competition focuses on creating a new green urban area that fosters social exchange and features s**ustainable urban development** with zero pollutant emissions. In short, the aim is to design a new space integrated into the urban fabric of Oviedo, with greater density and diversity of uses and which can create employment and economic opportunities for the surrounding area and the city.

BACKGROUND

In 2014, the transfer of the old HUCA to a new urban space meant that a large urban area in the southwest of Oviedo was abandoned. The area, which has been abandoned and unused since then, contains a number of isolated buildings and structures in a run-down condition. This **abandoned space** is now a chaotic collection of isolated buildings, with no clear urban design to give coherence to the whole.

The land is wholly publicly owned. According to the cadastral information, approximately 40% is held by the Principality of Asturias, 13% by Oviedo City Council, 28% by the Treasury of the Social Security and 18% by the Ministry of the Interior and the Ministry of Finance.

In the event of relocation, the 2006 Oviedo General Development Plan foresaw the future drafting of a special plan for a Special Development Site covering the land of the former Central University Hospital of Asturias (HUCA). However, over the years, it became necessary to expand the scope of action to incorporate other valuable adjacent structures.

Consequently, important urban elements were incorporated into the Plan, such as the Bullring, which is protected as an Asset of Cultural Interest, and the plot of land housing the National Police Headquarters.

DESCRIPTION

In 2017, an international design competition was launched with a view to developing the urban and spatial environment of the former Central University Hospital of Asturias (HUCA) in Cristo-Buenavista, in Oviedo. The winner, the HUCAMP! proposal, was selected in October of the same year. The project that won the competition proposed creating a **new mixed-use green district**, with a higher density and diversity of uses. This approach will also attempt to reconnect the new district with the urban fabric and centre of Oviedo through a new pedestrian and cycling route called the Cultural Pathway.

The designers of HUCAMP! proposed creating a new central area structured around a **large public green space**, the Campa de Todos, capable of organising the different uses around it. The proposal is based on the existing buildings, and sets out a strategy for renovating those with architectural, cultural or functional value and demolishing others, depending on their condition. This action on the existing structures is complemented in the proposal with new buildings.

The project envisages integrating **new residential** uses of private and subsidised housing, to promote greater social diversity, as well as tertiary uses (retail, offices and hospitality) in existing buildings and on new plots of land. The plan is also to incorporate other service-related uses for this new neighbourhood and adjacent areas, such as educational, school, care, health, social, sports, worship and municipal uses.

The future image of this new district has been likened to that of a green campus, which can be seen as an urban model in which large buildings of different types are structured around green areas, the structure of which organises them and serves as a connection between all the buildings, encouraging connection, participation and exchange. Therefore, not only will the type of facilities be renewed, following the abandonment of the original healthcare use, but there will also be diversification in the types of facilities.

The new space proposed in HUCAMP! will become a n**ew net zero neighborhood model**, promoting self-sufficiency in terms of energy. To this end, the project will self-produce heating, cooling and electrical energy through its own geothermal power plant and hybridisation with other renewable systems such as aerothermal, solar or small wind systems, and with an internal ring distribution circuit. This will turn the district into a non-polluting, energy self-sufficient neighbourhood.

Fig. 1 Representation of the HUCAMP! proposal, with its main parks and the network that connects them.

Fig. 2. Orthophoto showing the scope of the project.

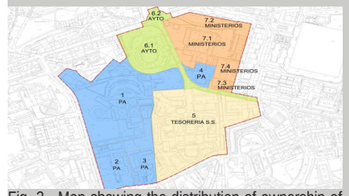


Fig. 3. Map showing the distribution of ownership of the land of the former HUCA.

Fig. 4. Map of the proposal showing the urban structure of Oviedo in relation to the project.

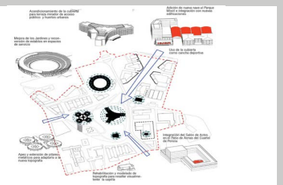


Fig. 5. Analysis of the project's most unique features.

Fig. 6. Mobility plan for the new proposal.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.2 Ensure functional complexity and diversity of uses.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

RESULTS

Although the execution of the project has not yet begun, the planning phase is currently underway and the Partial Revision of the Oviedo General Development Plan has been carried out, which will make it possible to renovate the **urban space** of the former HUCA in the Cristo-Buenavista area. Prior to drawing up the tender and finding the winning project, the government of the Autonomous Community and the City Council already had a great deal of information, thanks to citizen participation, about what the new neighbourhood needed.

PROCEDURE

Since the HUCA's relocation in June 2014, there has been a debate in Oviedo about the future of this urban area. From February to May 2015, in response to the Destino Cristo-Buenavista (Cristo-Buenavista End Use) participatory process, the Principality of Asturias prepared a feasibility study and the terms and conditions for an **international ideas competition** in the "El Cristo- Buenavista" area. Later, in April 2016, the Protocol of Action was signed between the Principality of Asturias and Oviedo City Council, thereby getting the regional administration involved in promoting development. The Protocol set out the Guiding Principles setting out the basis for future proposals.

Between September 2016 and January 2017, Oviedo City Council launched a second participatory process, called the HUCA Plan. This new process generally drew similar or complementary conclusions to those reached in the previous process in 2015, which enhanced the decision-making process.

In January 2017, a report was issued by the Oviedo Urban Planning Working Group of the Official Association of Architects of Asturias (COAA by its Spanish acronym), which called for **the land to be used for public interest purposes**, while stressing the shortfalls in terms of facilities. At the same time, contributions by the University of Oviedo, a key actor in the scope of the Partial Revision of the Oviedo General Development Plan, were also presented. The University's ambitious proposal sought to move most of its activity in Oviedo into that area, as at that time it was scattered in buildings in different parts of the city.

In April 2017, an international design competition was launched with a view to developing the urban and spatial environment of the former Central University Hospital of Asturias (HUCA) in Cristo-Buenavista. The competition was decided in October 2017 and awarded to the proposal entitled HUCAMP! la campa de todos.

REGULATORY FRAMEWORK

The regulatory framework underlying the transformation of the former HUCA is as follows:

- The project complies with the Revised Text of the Law on Spatial Planning and Urban Development.

- Oviedo Municipal Strategic Plan 2025.

- Oviedo Suma +, which determines municipal strategies, primarily on economic issues and activities.

- The 2018-2022 Strategic Plan of the University of Oviedo, as a key actor in developing the area.

- Partial Revision of the Oviedo General Development Plan.

ASSESSMENT

LESSONS LEARNED

This project recognises the importance of developing a flexible urban regulatory framework and **streamlined administrative work**. Although this has not been a rapid urban transformation process, the fact is that in less than a decade it has been possible to define a new future for the urban area of the former HUCA. Special mention should be made of the participation processes that Oviedo City Council has promoted over the years to engage in dialogue with citizens. Many of the principles underlying the winning proposal followed the more general requests and needs of the population.

GOVERNANCE AND TRANSFERABILITY

Since the HUCA's relocation in June 2014, the debate on the future of the area has been open to citizen participation. In September and December 2014, the Government of the Principality of Asturias, through the Regional Ministry of Development, Territorial Planning and the Environment, initiated the Destino Cristo-Buenavista (Cristo-Buenavista End Use) **participatory process**, the conclusions of which were made public in December of the same year in the so-called Dossier Ciudadano (Citizen's Dossier). This participatory process had a number of dissemination channels through social networks, questionnaires and participation tables. It showed that there was a great deal of public interest in the project.

Later, Oviedo City Council launched a second participatory process, called the HUCA Plan, which was driven and overseen by the architectural studio Paisaje Transversal. This process incorporated new tools and dynamics to those used by the Destino Cristo-Buenavista process, promoting workshops, displays of explanatory panels in streets in the city centre, the possibility of guided tours of the area and a day of activities with concerts: https://plan-huca.com/

In addition, spaces were organised to exhibit and debate the winning project, so that citizens were able to have direct input into the project with its designers and promoters. In October 2017, the winning project was presented at the Club Prensa Asturiana of La Nueva España, attended by its designers, together with the Councillor for Urban Planning of Oviedo City Council and the Director General of Spatial Planning and Urban Development of the Regional Ministry of Infrastructure, Spatial Planning and the Environment. Oviedo City Council was assisted in this process by the Regional Ministry of Infrastructures, Spatial Planning and the Environment of the Principality of Asturias.

SOSTENIBILIDAD

This good practice is based on a basic principle of urban transformation in terms of sustainability. It is a project that **renovates** a long-established part of the city, thereby avoiding an expansionist urban approach that would increase land and energy consumption. It is a project that should encourage other cities to review their existing urban facilities and structures in order to **rethink new ways of modifying already established parts of the city.**

The HUCAMP! transformation proposal is also committed to revitalising the urban area through energy self-sufficiency. The environmental and social future of the country will depend, in large part, on the ability of cities to r**educe energy consumption and related emissions**. Committing to renovating urban spaces by taking advantage of new energy technologies is one of the paths that needs to be pursued in the quest for a more sustainable urban future.

Fig. 7. Plan of the area.

Fig. 8. Image showing the HUCAMP! proposal.

Fig. 9. Image showing the current situation.

Fig. 10. Representation of the new neighbourhood proposed by the winning project.

Fig. 11. Representation of the new neighbourhood proposed by the winning project.

DATA

LOCATION
Alcoy, Valencia.

ACTORS
· Alcoy Town Council.
· Valencian Regional Government and the Ministry of Transport, Mobility and Urban Development
· Instituto Valenciano de Vivienda (it prepared and processed all of the documentation necessary for the urban development of the sector)

DATES
· 2010: the action plan to recover the El Partidor neighbourhood was launched.
· 2017: a SmartLab was set up in El Partidor.

AREA OF ACTION
El Partidor neighbourhood, Alcoy.

SOURCES
Explanatory report with detailed information on the document *El Partidor: Actuación de Regeneración y Participación ciudadana*.

PHASE
In the process of implementation.

SUMMARY

Alcoy is a municipality located in the interior of the province of Alicante, in the region of l'Alcoiá. The El Partidor neighbourhood, located in the upper part of the Old Town, has been one of the hardest hit by the loss of inhabitants and deterioration of buildings. Today, more than 40% of the neighbourhood's surface area is made up of plots of land. The population has been decimated and is in a highly vulnerable situation according to the Catalogue of Sensitive Urban Spaces (VEUS by its Spanish acronym) in the Valencian Community.

After years in which the situation in El Partidor has been very delicate, Alcoy Town Council is proposing an Urban Regeneration Strategy for El Partidor. To achieve this, it proposes creating an **eco-neighbourhood** in a historic environment, in line with the AlcoiDema Integrated Sustainable Urban Development Strategy, which aims to make Alcoy a sustainable, inclusive, smart town.

OVERVIEW

OBJECTIVES

The main objective is to functionally restore El Partidor, by transforming it back into a neighbourhood where residents want to live. The goal is an attractive, safe, integrating, **smart, sustainable** neighbourhood, within a natural, historic environment, and for this reason it has been decided to develop an eco-neighbourhood. This eco-neighbourhood aims to make the services needed to develop a community (housing, transport, leisure, culture, etc.) compatible while maintaining environmental balance. The following objectives have been defined in this respect:

- Restore the urban fabric, the historic environment and identity of El Partidor by improving public spaces and regenerating the building stock.

- Improve the quality of life and social relationships by incorporating nature into the neighbourhood and making use of natural resources.

- Promote sustainable mobility and accessibility by prioritising pedestrians and promoting public transport.

- Reduce consumption and produce sustainable energy in buildings and public spaces by supporting energy refurbishment and sustainable construction.

- Restore the social and economic structure of the neighbourhood by promoting a social mix through aid to people in vulnerable situations, the over 65s, the under 30s, and grants to entrepreneurs and commerce.

- Incorporate the neighbourhood into the Smart City platform to improve access to information, sustainability, social relationships, and its economic drive.

BACKGROUND

The neighbourhood has the appearance of a historic centre in an advanced **state of disrepair**. A large number of empty plots of land and buildings that are in a state of near ruin have accumulated there. Similarly, most of the dwellings do not have adequate hygienic conditions, with problems of accessibility and overcrowding. The residential stock in the neighbourhood is old, with 95.3% of the buildings in the area of action being more than 50 years old, and in most cases more than 80 years old. There is a large elderly population in the neighbourhood, with a high percentage of the population aged 65 and over. The high percentage of single-person households with people over the age of 64 is particularly noteworthy, as it is double the percentage for the municipality as a whole. This is evidence of the **lack of a young population** in the neighbourhood.

DESCRIPTION

The Town Council proposed regenerating the El Partidor neighbourhood by implementing an **Urban Regeneration Strategy** (URS) aimed at creating an eco-neighbourhood within the historic area. To achieve this, actions are proposed at different levels:

- Actions in public spaces.
- Works on existing buildings.
- Works to replace dilapidated buildings.
- Works to improve the urban landscape and connect it with the natural landscape.

Complementary measures are also proposed to support the success of the Urban Regeneration strategy.

- Complementary social measures.
- Complementary economic measures.
- Improvements to incorporate the neighbourhood into the Alcoy Smart City platform.

Furthermore, the measures proposed have been implemented in line with the AlcoiDema Integrated Sustainable Urban Development Strategy, which aims to make Alcoy a sustainable, inclusive, smart city, in line with the European Union's Urban Agenda and the conclusions of the Davos Declaration.

RESULTS

In 2015, a need was identified to resurface Calle de San Mateo in the section between Calle El Camí and Placeta de les Eres. Given the condition of the road, the surface properties of the carriageway and pavements were functionally restored. Specific work was carried out in existing spaces to allow them to be used by people with reduced mobility, consisting of flattening the kerbs at pedestrian crossings and creating ramps. There is a strip of paving on the pedestrian crossing at the corner of Carrer Sant Nicolau and Carrer El Camí, with raised areas for blind people using walking sticks to detect them.

Electric mobility is very important for Alcoy. Four **electric vehicle charging points** have been set up, one of which is very close to the El Partidor neighbourhood, specifically in Plaza Ramón y Cajal.

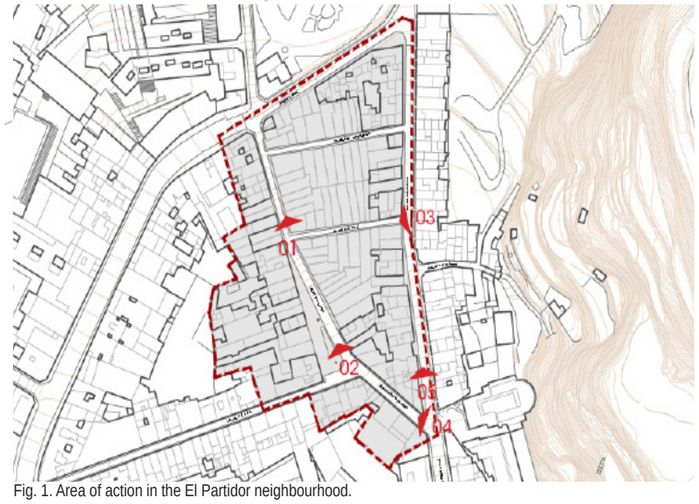


Fig. 1. Area of action in the El Partidor neighbourhood.


Fig. 2. El Partidor eco-neighbourhood.


Fig. 3. Eco-neighbourhood idea proposed for the El Partidor area.


Fig. 4. The mayor of Alcoy with the Councillors for Housing and Town Planning.

Fig. 5. Press conference.


Fig. 6. Current condition of the neighbourhood.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.2 Ensure functional complexity and diversity of uses.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

9.2 Promote e-government and bridge the digital divide.

PROCEDURE

In accordance with the current General Urban Development Plan, which was approved by a Resolution on July 20, 1989 by the Councillor for Public Works, Town Planning and Transport, and published in the Official Gazette of the Province on September 14 of the same year, the r**egeneration and renovation** area in the municipality of Alcoy is located on urban land.

After the General Urban Development Plan came into force, the Old Town area in Alcoy was approved in 2003 so that current planning could be adapted to the Law Regulating Town Planning Activities.

Later, on January 3, 2005, an agreement was reached in the Plenary Session of the Town Council to admit the Interior Reform Plan for Sector 2 of the Old Town in Alcoy for processing and submit it for public consultation.

In 2010, Instituto Valenciano de Vivienda (IVVSA) and Alcoy Town Council initiated an **action plan** to restore the El Partidor neighbourhood in consultation with residents of the neighbourhood.

In 2017, a study, commissioned by the Department of Finance and Commerce of Alcoy Town Council, was carried out on part of the town's historic centre, due to concerns about its increasing deterioration, leading to proposals for improving and revitalising it on a social level and, above all, on an economic level (commerce).

In 2018, a study was carried out on the neighbourhood through Urban Innovative Actions with the aim of setting up a "**Smart LAB**" in El Partidor, with the aim of regenerating it on a socio-economic, environmental and innovative level ("Smart City").

During the winter of 2019-2020, Storm Gloria caused serious damage in El Partidor, where several buildings were severely damaged and some of them even fell down. Given the seriousness of the situation, the Building Institute of Valencia (IVE by its Spanish acronym) carried out visits to the area to check on the condition of the area and drafted reports about it.

REGULATORY FRAMEWORK

The regulatory framework of the action plan for the El Partidor neighbourhood was as follows:

- The demarcation of the Urban Regeneration and Renewal Area (URRA) of Alcoy, as stated by the Valencian Community, for the purposes set out in article 27.1 of Royal Decree 233/2013 of October 23, 2015.

- The State Housing Plan 2018-2021, approved by Royal Decree 106/2018 on March 9, 2018.

- The 2015 Programme for Promoting Urban Regeneration and Renewal, which was carried out in Alcoy, aimed at restoring buildings and housing and replacing buildings in the urban regeneration and renewal area of Alcoy, in the Santa Rosa and Ensanche neighbourhoods, and in the historic centre.

- The 2018 Programme for Promoting Urban Regeneration and Renewal, which was carried out in Alcoy, aimed at urban regeneration and renewal in the Old Town.

- Law 1/2019 of February 5, which amended Law 5/2014 of July 25, on Spatial Planning, Urban Planning and Landscape of the Valencian Community, which was created with the aim of dealing with the territory in an **integrated** manner in order to achieve sustainable development, prioritising restoration and renovation works in the town.

SECONDARY PLANS

A number of plans were implemented to **improve the Old Town**, such as the Sustainable Urban Mobility Plan for Alcoy, the Integrated Accessibility Plan, the Alcoy Smart City Master Plan, and the Plan for Revitalising Commerce in the Centre.

ASSESSMENT

LESSONS LEARNED

The impetus provided by this programme helped raise public awareness about the importance of **restoring urban centres** and the need to do so in a sustainable, innovative and inclusive manner. The coordination required between the Central, Autonomous and Local Administrations should be the guarantor of a successful outcome in which the public perceives that the unity of all the parties involved will build the future and ensure a better quality of life for citizens.

It should become an element of regeneration and an instrument for modernising and adapting Alcoi to the needs of a Smart City; it should be a way of reflecting the needs of citizens and building a shared vision of the future of their city. It should be seen as an innovative approach to dynamic urban regeneration processes in historic areas, promoting public-private collaboration.

GOVERNANCE AND TRANSFERABILITY

It is worth mentioning the involvement of the residents in the process to renovate the neighbourhood, who set up a **working team** made up of people from very different backgrounds, held several meetings and reached a number of agreements.

- Participation 00: Citizen participation in assessments prior to the URS.
- Drawing up the draft URS for the eco-neighbourhood in El Partidor.
- Participation 01: Briefing on progress made on the URS and URRA + Working table (Date: April 29, 2019).
- Adjustments to the URS based on the findings of public participation.
- Participation 02: Briefing on progress made on the URS and URRA + Working table.
- Participation 03: URS Presentation Meeting (Date: February 24, 2020).
- Adjustments to the URS and drafting of the 2020 URRA Programme Report.
- Participation 04: Presentation of the final document and signing of agreements with owners. (Date: July 22, 2020).
- Application for State Housing Plan Aid.

SUSTAINABILITY

The aim is to achieve a sustainable town, while taking the urban structure and cultural model into account: respect for the existing town as the basis for designing the project to shape the identity of the neighbourhood, ensuring the quality of the public spaces and buildings; taking environmental and energy sustainability into consideration; being environmentally friendly, based on introducing green spaces, energy management and the efficient use of natural resources. The project also focuses on sustainable mobility and accessibility: priority is given to pedestrians in public spaces, ensuring accessibility in the urban environment and promoting quality public transport in order to reduce the presence of cars on the streets. Finally, **social sustainability** is taken into account: mix of uses, existence of different housing models (purchase, renting, etc.).

Fig. 7. State of a property in Calle Sant Mateu, after a house had collapsed.

Fig. 8. Completely open section between two houses in Calle San Mateo.

Fig. 9. The plan includes the demolition of eight buildings on Calle de Sant Bonaventura.

Fig. 10. Redevelopment of a plot of land for various social and recreational uses.

Fig. 11. Repair work on a plot of land. New image of the El Partidor site.

DATA

LOCATION
Jerez de los Caballeros, Extremadura.

ACTORS
· Regional Government of Extremadura.
· Jerez de los Caballeros Town Council.
· Badajoz Provincial Council.
· Extremadura Cognitive Accessibility Office (OACEX)
· Extremadura Technical Office for Accessibility (OTAEX).
· Federation of Associations of People with Physical and Organic Disabilities (APAMEX and COCEMFE).
· Designers: 2S Arquitectos, SCP. Estefania Sánchez Garrido and Santos Sandoval Nevado.

DATES
· 2017-2018: Launch of the Plan and partnerships.
· 2019: Official presentation of the Plan.

AREA OF ACTION
Jerez de los Caballeros walled enclosure.

SOURCES
Accessibility Plan for Jerez de los Caballeros:
https://jerezcaballeros.es

RECOGNITION
OTAEX Award 2019 in the category of Urban Planning and Environment.

PHASE
In the process of implementation.

SUMMARY

This Accessibility Plan was designed as a reference guide for actions on public roads and buildings to ensure accessibility in Jerez de los Caballeros.

The initiative seeks to **promote a town that is open to everyone**, accountable to its citizens and that respects and facilitates the lives of its inhabitants. As a tool, it compiles and defines all of the actions that have an impact on the rights of people with disabilities and promote their social inclusion, with the aim of ensuring the quality and universal accessibility of public spaces.

It is a Plan over 4 years (2018-2022) promoted by the Regional Government of Extremadura and Jerez de los Caballeros Town Council, with the collaboration of OACEX, OTAEX, APAMEX and COCEMFE. Following its approval and submission in January 2019, it won the OTAEX 2019 award in the Urban Planning and Environment category.

OVERVIEW

OBJECTIVES

The following overall and specific objectives have been set in order to ensure the quality and universal accessibility of public spaces. The overall objectives are to ensure that Heritage and Accessibility can coexist so that the city thinks of everyone and demonstrates its capacity for resolving and managing the mobility and accessibility of all of its citizens.

Another more general objective is to **democratise access to and knowledge of heritage**. All of the elements that make up the town need to be made universally accessible, taking people and their circumstances into consideration. Access therefore means providing knowledge, and making this possible involves studying each of the cases and spaces that make up the area of action.

Moreover, specific objectives have been set, based on reducing the area of action in order to make the plan more realistic and affordable, and on implementing a number of measures based on analysing and reflecting on the environment in order to find more concrete solutions. In addition, the aim is to work on the layout of the streets, public spaces and buildings affected by the Plan, and also to promote citizen participation. The latter system makes it possible to provide real solutions to real problems, since the assessment provides a much more accurate analysis of the existing problems. The plan is intended to reflect citizens' views on accessibility and their circumstances.

BACKGROUND

The need to revise the Accessibility Plan arose when it became clear that it was necessary to make certain improvements and innovations to the previous one, given the special heritage, geographical, morphological, topographical, urban and architectural characteristics of the municipality.

On the one hand, the orography is full of hills and small valleys with slopes sometimes exceeding 20%, which makes **accessibility to the different parts of the town difficult**. On the other, ten years of the previous Plan had not managed to steer the town towards a truly accessible urban reality. Many of its proposals were not sufficiently well known to users and local residents. A new plan was needed that would have more guarantees of success and would be an active agent known to everyone.

DESCRIPTION

The Plan arose from a need and the municipality's commitment to its residents and users of its streets and spaces, regardless of whether they are regular or occasional users, so that they could **move freely and independently** through as many spaces and buildings as possible, facilitating access to and enjoyment of all of them by any user, regardless of their circumstances.

One of the most important points and determining factors when drawing up the Jerez de los Caballeros Accessibility Plan was the heritage potential of its infrastructures, streets, squares, stately homes, palaces, sections of walls, citadels and ramparts. Therefore, the essential working material involved in any actions carried out on this municipality are the heritage assets that make up its fabric, with the guiding principle being to "**provide access to heritage**".

The key to all of this, and the basis for revising the Accessibility Plan, is the concept of democratisation of heritage: What belongs to everyone should be known by everyone. Therefore, giving universal access to everything that makes up the identity of the town means thinking about everyone and their circumstances.

Depending on the structure of an Accessibility Plan, actions are carried out at **four different levels**, which are:

- Urban areas: The flows of the busiest routes and stretches most frequented by residents and tourists were studied based on the most important buildings or places and those most used by the population.

- Public buildings: There are a number of buildings of great heritage and architectural interest within the walled enclosure, dedicated to public uses, offering services that are very important to citizens. They were studied in depth, by means of detailed planimetry and a specific analysis model.

- Transport: This focused on aspects related to user mobility, as well as the infrastructures linked to movement within the walled area.

- Communications: the interactions of users with the elements in the city that provide information and understanding of how municipal facilities work were studied. In these cases, special attention was paid to signage and the demarcation of streets, squares, buildings, websites, tourism and general municipal signs.

Fig. 1 Area of action in Jerez de los Caballeros.

Fig. 2. Church of Santa María de la Encarnación.

Fig. 3. Aerial view of Jerez de los Caballeros.

Fig. 4. Old Town in Jerez de los Caballeros.

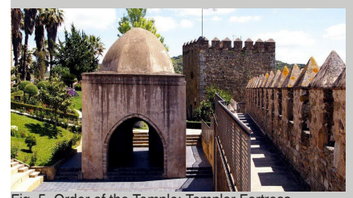


Fig. 5. Order of the Temple: Templar Fortress.

Fig. 6. General view of the Church of Santa María de la Encarnación.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE EXISTING CITIES

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG5 PROMOTE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG10 IMPROVE INSTRUMENTS OF PARTICIPATION AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

RESULTS

The first actions carried out within the framework of the Accessibility Plan were as follows:

- The "Smart Town Council" pilot project. The Extremadura Office of Cognitive Accessibility (OACEX) produced an **Accessibility Report**, which led to a number of work meetings with the governing team of Jerez Town Council to analyse how to implement the measures included in the report.

- Action on "Grade 03" streets in the Accessibility Plan, the criteria for which related to implementing measures to **improve accessibility.** Some of the streets on which action was taken were as follows:

·Work on Calle Monjas: The work involved changing the paving, modifying the gradient to achieve a smoother slope and grouping of steps (which were previously isolated) in order to create a fully equipped and signposted staircase (more than three steps), making it more easily recognisable.

· Work on Calle Morería: Work involving changing the pavement, modifying the gradient to achieve a smoother slope.

· Work on Calle Ladera del Correo: Installation of a side rail as an aid to pedestrians to improve accessibility due to the steep slope of the street.

- Work on the "Antiguas Escuelas" building: Actions of varying degrees of consideration in terms of universal accessibility to heritage buildings. The exercise consisted of a complete refurbishment, resulting in a fully adapted building, while preserving its historic character.

- Creation of an **Accessible Tourist Plan**: Design and construction of a general map of the historic centre and surrounding areas, geared towards tourism, in which different routes are implemented depending on their accessibility, alternative routes and highlights in the town.

PROCEDURE

After identifying several problems in the previous Accessibility Plan, it was decided to replace it with a new one to cover the needs of all citizens in the municipality. To this end, on November 22 and December 13, 2017, the 1st and 2nd Meetings on the Jerez de los Caballeros Accessibility Plan were held. The Plan was presented at the first and three workshops were held at the second to raise awareness about accessibility, for both adults and children. After these sessions, the Plan was submitted for public participation.

On January 12, 2018, the first collaborations with different associations, foundations and technical teams began with a view to drafting the Plan, in order to ensure its success in terms of accessibility. One year later, on January 28, 2019, the Jerez de los Caballeros Accessibility Plan was officially presented. And, on December 16, 2019, the Plan won the **OTAEX 2019 award** in the category of Urban Planning and Environment.

REGULATORY FRAMEWORK

- The third additional provision of Royal Legislative Decree 1/2013 of November 29, approving the Revised Text of the General Law on the Rights of Persons with Disabilities and their Social Inclusion, set December 4, 2017 as the deadline by which all buildings would have to comply with the Safety in Use and Accessibility (SUA) conditions stipulated in the Technical Building Code (TBC).

- Law 11/2014 of December 9, on universal accessibility in Extremadura.
- Order VIV/561/2010 of February 1, which implements the technical document on basic conditions of accessibility and non-discrimination with regard to access to and use of urbanised public spaces.
- Basic Document DB-SUA Safety in Use and Accessibility stipulated in the Technical Building Code of February 2010 and DB-SUA / 2 Effective adaptation of accessibility to existing buildings of June 30, 2017.

ASSESSMENT

LESSONS LEARNED

Of all the lessons learned, two stand out in particular. Firstly, the **commitment** of political leaders in the administration to provide solutions to the problems identified when carrying out actions to assess accessibility. In addition, the involvement of local social organisations in monitoring the project from the outset was appreciated.

And secondly, the incorporation of training actions on universal accessibility with the technical offices for accessibility and various associations was also acknowledged. In other words, the provision of various workshops aimed at both children and adults to raise everyone's awareness of the importance of the issue, with the clear intention of **raising public awareness**, led to a general rationale and consensus for everyone's needs and observations.

GOVERNANCE AND TRANSFERABILITY

The human resources for carrying out and drafting this plan included the support of institutions and technical teams such as the Extremadura Cognitive Accessibility Office, the Extremadura Technical Office for Accessibility, the Federation of Associations of People with Physical and Organic Disabilities and the Government of Extremadura's Historical and Artistic Heritage Works and Projects Service.

Several meetings and workshops were held with citizens to publicise the Accessibility Plan, including the Plan's Presentation Days, Awareness and Participation Workshops, meetings with the groups most affected (APROSUBA-5, Euexia Rural, the Senior Citizens' Centre and Aguasanta School) and meetings with heritage associations.

In addition to these meetings and workshops, there was also the **websites** of Jerez de los Caballeros Town Council and the Regional Government of Extremadura, which included a copy of the Accessibility Plan and the latest news related to the project and works. The Jerez de los Caballeros Accessibility Plan can now be considered one of the pioneers in terms of accessibility.

SUSTAINABILITY

The sustainability of this action came mainly from its **social nature**, the idea of an inclusive, friendly town that includes everyone, based on a town designed by and for everyone, in which inclusion and diversity were the key factors when it came to working on the urban heritage of Jerez de los Caballeros, which has become an open town that has thought of and thinks of everyone as a result of strategies such as this Plan. This meant embracing all points of view, taking the full diversity of people and users into account. In the process for drafting the Plan, this multitude of viewpoints was achieved by giving voice to all the needs and observations of the users of the municipality's public spaces and buildings.


Fig. 7. Church of San Bartolomé.


Fig. 8. Torre Sangrienta (Bloody Tower).


Fig. 9. Walled perimeter of Jerez de los Caballeros.


Fig. 10. Jerez de los Caballeros Viewing Point.


Fig. 11. View of the Churches of Encarnación, San Bartolomé and San Miguel.

DATA

LOCATION
Castellón de la Plana, Castellón.

ACTORS
·Castellón de la Plana City Council.

DATES
· 2016 - present.

AREA OF ACTION
The city.

SOURCES
Castellón de la Plana City Council.

RECOGNITION
Second place in the European Commission's Access City Award 2020.

PHASE
In the process of implementation.

SUMMARY

The Accessibility Plan for Castellón is a tool for making accessibility a central pillar in the redesign of the **city model**. It proposes actions in four sectors: urban environment; public facilities and buildings; transport; communication and information.

OVERVIEW

OBJECTIVES

Castellón understands accessibility as something that is cross-cutting and covers everything. It is not only limited to physical spaces, but also to the services that the City Council provides to citizens. Accessibility applies to the urban environment, leisure, access to employment, education, sporting activities, public participation processes, etc.

The objective of the Plan is to ensure equal access for people of all ages and in all situations, and, to this end, the actions planned are aimed not only at overcoming physical obstacles, but also the existing **digital and cultural divides**, so as to improve the quality of life of all citizens.

BACKGROUND

According to the assessment made in the Plan, people over the age of 70 represent 12.7% of the city's total population. Furthermore, according to the National Survey on Disability and Personal Autonomy (2008), 16,800 residents of Castellón (almost 10% of the population) have some kind of disability, 54% of whom are women. Given this reality, the challenge of accessibility for everyone also became an opportunity for the City Council to improve the quality of life of its inhabitants, an undertaking that has been recognised by the WHO, which has identified Castellón as an Age-Friendly City.

DESCRIPTION

Castellón is not only a first class year-round tourist destination, but also firmly committed to accessibility and inclusion as the cornerstone of its new city design. It is a city that is committed to removing barriers so that citizens and visitors alike can access and enjoy all of its public spaces on an equal footing.

As a Mediterranean city with a vibrant social and cultural life, Castellón came second in the European Commission's Access City **Award** 2020 as one of the most accessible and inclusive cities, along with five other European cities with more than 50,000 inhabitants (a requirement for this award): Évreux (France), Skellefteå (Sweden), Chania (Greece), Tartu (Estonia) and Warsaw (Poland). 10 applications were submitted from Spain, of which three made it to the final: Barcelona, Bilbao and Castellón. It was the capital of the La Plana region that was chosen by the European Commission as one of the six finalists.

To achieve this important international recognition, in 2016 Castellón launched an ambitious Accessibility Plan that has had an impact not only on its inhabitants but also on its visitors with reduced mobility. Therefore, the city's main means of public transport, the bus, **has retrofitted 100% of its fleet** with access ramps, adapted seating and added more stops.

Improvements in accessibility also extended to one of the city's tourist and cultural icons, the Grau Planetarium, and to the city's three beaches: Del Pinar, Gurugú and Serradal. People with disabilities use adapted service points on these beaches and take part in weekly aquagym activities at the Summer Yoga Camp.

This is in addition to collaborating with the "Sea for all" project, which aims to make water sports more accessible to people with disabilities.

The Accessibility Plan launched by Castellón City Council identified routes linked to key areas of the city's social, administrative, economic and cultural life, assessed their degree of accessibility and started to remove barriers and improve the condition of pavements.

According to the European Commission, which presents this award, it is an opportunity for European cities to demonstrate their commitment to building an area that is available to everyone.

The Accessibility Plan was organised into **four priority areas** of action: (1) urban environment; (2) public facilities and buildings; (3) transport and communication; and (4) information, and a number of areas which, although not initially considered as such, were equally important when it came to achieving the overall objective.

Consequently, the Plan included actions aimed at making the dream of an Accessible Castellón a reality by doing work on the built environment and public spaces, on transport and related infrastructures, on accessibility to information and communication, on education and culture for diversity and on accessibility to public facilities and services.

PROCEDURE

The Accessibility Plan was a response to Castellón City Council's **social and political commitment** to creating comfortable, inclusive, accessible urban spaces. It was unanimously approved in 2016, and defines a strategic approach that has been

Fig. 1. Castellón, an accessible and inclusive city. Source: Juárez Casanova.

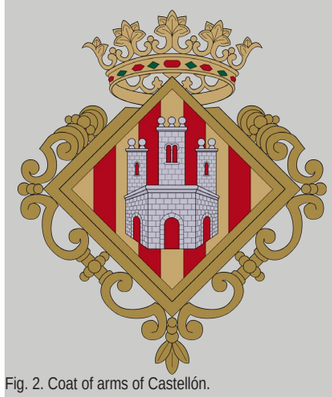


Fig. 2. Coat of arms of Castellón.

Fig. 3. Adapted bus stops.

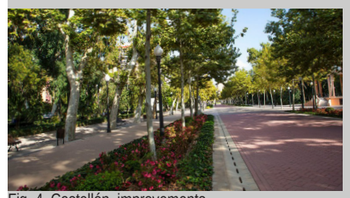


Fig. 4. Castellón, improvements.

Fig. 5. Castellón, planetarium.

Fig. 6. Castellón, El Pinar beach.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

integrated into the city's Integrated Sustainable Urban Development Strategy (EDUSI) and the **Castellón Urban Agenda**, which is currently under development.

The Castellón Urban Agenda Action Plan is one of the pilot projects in Spain and is a benchmark in terms of the participation process involved.

RESULTADOS ALCANZADOS

The results achieved so far by the Plan are directly linked to each of its main lines of action. Some of the actions that have already been implemented in relation to the **urban environment and public space** include the following:

- 25 different routes linking key areas of the city's social, administrative, economic and cultural life were identified and their accessibility for people with reduced mobility and special needs was assessed.

- Work has begun on removing barriers, improving the condition of pavements and implementing assistive technologies, focusing on the first main route that crosses the city from east to west, connecting the university, the city centre, the Grau, the Planetarium and the beach.

- An Urban Accessibility Unit has been set up to fix and improve those small problems that hinder accessibility.

From a **transport** perspective, thanks to the Integrated Sustainable Urban Development Strategy (EDUSI_Transforma Castellón), which was co-funded with European funds, 17 bus stops have been adapted, in addition to the 5 already adapted in 2017, by installing versatile platforms that not only improve the safety of users during waiting times, but also make it easier to access the bus.

Moreover, in recent years, the City Council has worked to promote e-inclusion, starting by making its website more accessible to everyone through an IT support package that includes voice and sound commands, screen reader compatibility tools, etc., among other tools.

Hearing-impaired citizens can also follow the debates of the municipal plenary session in sign language via live streaming or they can use the website to request information (via Skype, Hangout or similar) from any local service.

Meanwhile, the city's educational community is involved in achieving inclusive education from all points of view (including the gender perspective) and, as a result, coeducation projects have started in 4 schools and 15 more will follow in the coming years.

These projects will make play areas more inclusive and accessible, among other improvements. Accessibility in schools has also been improved and innovative cultural initiatives, such as "Ruta a las estrellas" (Route to the Stars), have been promoted to make culture and science more accessible to the visually impaired.

Leisure and sport are also an essential part of personal development. For this reason, public sports centres have been adapted (access, changing rooms, stands) for people with reduced mobility and an annual sports programme has been put together to allow disabled citizens to enjoy healthy physical activities on a regular basis (horse riding, swimming, boccia, football and basketball, for example). The city's three beaches have been adapted for people with disabilities.

REGULATORY FRAMEWORK

The Accessibility Plan was not, and is not, a stand-alone document. It has been further developed by other sectoral strategy documents. These include the General Urban Development Plan, as the city's main urban development tool, the Smart City Plan (which includes the development of inclusive applications and projects to reduce the digital divide), the Integrated Sustainable Urban Development Strategy (**EDUSI_Transforma Castellón**), with objectives directly linked to accessibility via 3 lines of action (urban regeneration, social cohesion and energy efficiency) with a budget of more than 10 million euros, and the Local Mobility Plan (2016-2024).

The Local Plan of Action for Children has also allocated resources to raise awareness about the inclusion of children and young people with disabilities; the Tourism Activities Programme includes inclusive activities for visitors with disabilities; and the Sports Plan includes adapted activities within general and seasonal programmes.

ASSESSMENT

LESSONS LEARNED

Among the lessons learned, the high life expectancy of citizens means that the accessibility of urban environments is increasingly becoming a priority in all urban policies as an inspirational criterion for improving the quality of life of their inhabitants and **fostering social cohesion**. In this regard, the Castellón Plan is committed to removing architectural barriers so as to promote greater autonomy for the elderly, disabled and people with reduced mobility, facilitate their social relationships, autonomy and independence, and promote safe, high quality environments that generally ensure a healthier life.

From the perspective of cognitive accessibility and communication, the actions proposed by Castellón City Council contribute to minimising the digital divide and knowledge gap between all people, irrespective of their age or circumstances. The public need to be made aware of and understand these measures if they are to be put into practice. To achieve this, Castellón has carried out several **awareness-raising campaigns** aimed at children, young people, the elderly and the general public on the value of diversity.

GOVERNANCE AND TRANSFERABILITY

Actions related to accessibility are priority objectives in all urban policies. Actions such as the Castellón Plan are an example of experiences and good practices that can be replicated and transferred to other municipalities.

SUSTAINABILITY

Ensuring universal accessibility is one of the **most cross-cutting and integrated** actions that can be carried out in a town or city to ensure compliance with the goals of the 2030 Agenda, the objectives of the Spanish Urban Agenda and the three pillars of sustainability. Although these are actions of a markedly social nature, their focus on health and a city of proximity also has a positive impact on the environment and the economy, encouraging investment in aspects that improve the quality of life of all citizens, stimulating innovation and fostering the transformation of the urban model to adapt it to all needs.

Fig. 7. Castellón City Council.

Fig. 8. Castellón, an accessible city (1).

Fig. 9. Castellón, an accessible city (2).

Fig. 10. Castellón Integrated Sustainable Urban Development Strategy.

Fig. 11. Accessibility problems.

DATA

LOCATION
Valladolid, Castile and León.

ACTORS
· Valladolid City Council.
· Horizon 2020, European Union.
· Duero Hydrographic Confederation.
· CENTA.
· LEITAT.
· ACCIONA.
· SINGULAR GREEN.
· GMV.

DATES
· 2017: Start of the project.

SOURCES
URBAN GreenUP website.
www.urbangreenup.eu

PHASE
In the process of implementation.

SUMMARY

The URBAN GreenUP "New strategy for re-naturing cities through Nature-Based Solutions" is a project funded by the European Union's **Horizon 2020 programme**, which aims to develop, implement and revive Renaturing Urban Plans (RUP) in several European and non-European cities, with the aim of mitigating the effects of climate change, improving air quality and managing water, as well as increasing the sustainability of cities through innovative nature-based solutions. Running from 2017 to 2022, there are three demonstrator cities: Valladolid in Spain, Liverpool in the UK and Izmir in Turkey will validate and demonstrate the effectiveness of the methodology defined by URBAN GreenUP. Based on their experience, five other cities, namely Mantova in Italy, Ludwigsburg in Germany, Medellin in Colombia, Chengdu in China and Binh Dinh-Quy Nhon in Vietnam, will follow on and set up their own renaturing urban plans to replicate the URBAN GreenUP strategy and its approach to the green economy.

OVERVIEW

OBJECTIVES

One of the first objectives of the URBAN GreenUP project in Valladolid is to operate as a demonstrator to develop, evaluate and document nature-based solutions, acting as a living laboratory for demonstration purposes. Overall, the project is aimed at developing a methodology to support cities in making and evaluating decisions of this nature, identifying the most appropriate location to ensure a positive environmental impact, economic sustainability and social acceptability of the actions. The project has an **integrated approach**, and is aimed at connecting green areas and green corridors in different parts of the city and is complemented by a number of actions of a social nature to support the green economy.

BACKGROUND

Valladolid's sustainable urban development strategy, INNOLID 2020+, emerged as a response to the challenges facing the city to tackle the problems identified and six major challenges were identified: demographic, social, economic, territorial, environmental and climate challenges. The territorial challenges showed that Valladolid has grown in size in recent decades, while **losing population**. The city has undergone expansive urban development and has become the nucleus of an urban agglomeration that groups neighbouring municipalities together and has a population of 370,000 inhabitants. Valladolid has a limited availability of public space and impermeable surfaces, and the rapid growth of recent decades has highlighted the need to act on environmental challenges and seek solutions to the problems of an inefficient water cycle, disconnected green areas and pollution. The INNOLID 2020+ strategy identified climate challenges such as the age-old problem of flooding and the negative effects of traffic.

The Valladolid agglomeration is characterised by the significant amount of chemical pollutants emissions into the atmosphere, mainly from urban traffic, given the polluting potential of the more than 250,000 vehicles that travel along the roads in the municipality on average. The network of cycle paths is disjointed and the pedestrian zone is limited to the centre. In this regard, there is an urban air **pollution alert** action plan, the protocols of which have already been implemented on several occasions due to high particle pollution, with traffic restrictions in the historic centre and the promotion of public transport.

Directly related to this, noise is another of the city's problems, with the noise map indicating that 37% of the population is affected by high noise levels, which is a very significant proportion. The city is located at the confluence of several rivers, of which the Rivers Pisuerga and Duero are of poor quality as a result of dumping, and the River Esgueva has poor flow problems in the summer due to water being extracted for agricultural irrigation. Furthermore, the Flood Risk Management Plan for the River Duero basin has identified hydrological risks in Valladolid associated with natural flooding processes caused by intense and continuous rainfall, as well as rapid thaws. These phenomena are exacerbated in the city by large areas of impermeable surfaces and sewer overflows. The risk of **flooding** affects 28.4% of urban land and land for development, and there are frequent major floods and periods of high water levels in the River Esgueva. In this context, it is also worth mentioning that the city has experienced severe droughts, with low water levels in reservoirs, and water for irrigation of green areas has even been turned off during the summer.

For this reason, some of the lines of action identified in INNOLID 2020+ that Valladolid is working on to solve the problems diagnosed include developing green infrastructures and efficient water use, and promoting actions that create employment and new business opportunities.

DESCRIPTION

Nature-based solutions use natural elements and their complex processes, such as the ability to sequester carbon and regulate water flows. The general types of solutions applied in Valladolid are as follows:

(1) **Renaturing of vegetation**: green spaces include the creation of an interconnected urban green corridor, with a renatured cycle path, green rest and shaded areas, with trees being planted and damaged specimens being replaced. Of particular note is the renaturing of the open-air car park at the José Zorrilla football stadium (which currently covers an area of four hectares of grey infrastructure), and an urban carbon sink involving planting trees with a high CO2 sequestration capacity. The aim is to ensure that the plant species introduced are native, with low water and fertiliser requirements and lower allergenic potential. Measures such as using female plants or increasing species variability contribute to these objectives.

(2) Green infrastructure: New areas of green infrastructure will be created in the city centre, such as vertical gardens, green walls and roofs, which will contribute towards controlling the climate and energy of buildings in a natural way. They provide good structural performance in terms of thermal insulation and extending the useful life of the roof. Vegetation screens against noise pollution will provide sound insulation to absorb and shield against low-frequency noise from road traffic. Structures will be installed to provide habitats for pollinating species, and smart, self-fertilising soils that can fix nitrogen dioxide will be used.

(3) Water-related actions: a flood park is planned where the River Esgueva enters the eastern part of the city, an area that has historically suffered from problems caused by the river flooding. A natural **wastewater treatmen**t plant will be installed in the vicinity of the Miguel Delibes auditorium, based on a system of artificial lagoons to treat the wastewater from the Zaratán urban sewer and thus improve the quality of the water before it is discharged into the River Pisuerga. The plan is for the plant to reuse treated water to irrigate a green filter, which will help to clean the water by filtering it through the vegetation and the soil.

Fig. 1. URBAN GreenUP logo.

Fig. 2. Valladolid coat of arms.

Fig. 3. Valladolid City Council.

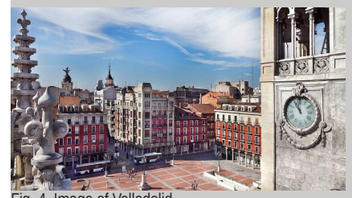


Fig. 4. Image of Valladolid.

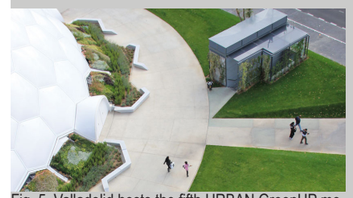


Fig. 5. Valladolid hosts the fifth URBAN GreenUP monitoring meeting

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

2.2 Ensure functional complexity and diversity of uses.

2.5 Promote urban regeneration.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

Permeable pavements will be installed to help filter run-off water in the open air car park of the José Zorrilla football stadium, and sustainable urban drainage systems and a rain garden will be installed in the vicinity of the green corridor.

(4) Non-technical actions: Apart from a number of technical actions, the URBAN GreenUP project also includes **educational activities** for public participation and raising public awareness of the environmental, economic and social benefits of green infrastructures. These actions include expanding the surface area of the municipal network of urban allotments, setting up home composting infrastructures and a small urban farm, where school visits, workshops and environmental education activities can be carried out.

RESULTS

Valladolid is looking to become a European benchmark for renaturing urban spaces. URBAN GreenUP in Valladolid is an integrated innovation project that seeks to tackle several of the urban challenges identified in INNOLID 2020+. It is focused on demonstrating the effects of a wide range of nature-based solutions in improving the quality of life of citizens. The green infrastructure measures that have been put in place will improve air quality by **retaining particulate matter** and by absorbing CO2 through vegetation, and will lower the average temperature due to plant evapotranspiration. Plants help to create shaded areas and protect against frost; they also help to absorb and reflect road traffic noise.

The increased biodiversity produced in the green corridor will improve ecological connectivity between the city's green areas, thereby maximising east-west permeability, facilitating sustainable mobility through cycling and pedestrianisation and creating healthy areas. The water measures to be implemented are aimed at increasing the efficiency of water use, such as demonstrating the natural purification of wastewater. Sustainable urban drainage systems and the flood park will contribute to mitigating the effects of flooding and surface run-off.

Urban renaturing measures will contribute towards increasing green intelligence and raising collective public awareness, thereby stimulating green recreation and biodiversity, creating a social impact and increasing citizen participation through a co-creation approach.

The local government of Valladolid and URBAN GreenUP project are looking to boost the development of the **green economy** in the urban sector, thereby creating jobs, new opportunities and business models. It is hoped that an increase in commercial value will result from implementing nature-based solutions in the city centre, where an increase in the number of customers in the shops close to areas where actions have been implemented is expected, which in turn will lead to an increase in the value of the area. Taking part in an international European project resulted in a fruitful exchange of ideas across the consortium, with partners from different countries and case studies, tackling the common problems of sustainability in urban areas and the threats posed by climate change.

PROCEDIMIENTO

El Ayuntamiento de Valladolid, con la Concejalía de Hacienda, Función Pública y Desarrollo Económico y con la colaboración de las Concejalías de Urbanismo y Medio Ambiente, es el encargado de llevar a cabo las actuaciones del proyecto previstas en Valladolid. La **renaturalización urbana** se ha planteado como una estrategia horizontal y las soluciones basadas en la naturaleza no se han considerado acciones ambientales que solo se aplican a la vegetación o al tratamiento del agua, sino que su naturaleza conlleva la participación de actores del planeamiento urbano.

The city's local government analysed the advantages of applying nature-based solutions as natural measures to mitigate the negative effects of urban development on human health and ecosystems. In 2016, during the process of reviewing Valladolid's General Urban Development Plan, a detailed strategic environmental study was included, with an analysis of the way the city was behaving in relation to climate change. Also in 2016, Valladolid City Council, under the coordination of the CARTIF technology centre, saw URBAN GreenUP as an integrated innovation project, focused on improving the quality of life of citizens and increasing the city's resilience to climate change.

REGULATORY FRAMEWORK

In recent years, the city of Valladolid has demonstrated its competence in **attracting European funds**, as six out of the seven projects it has applied for are underway. The key to successfully implementing an urban renaturing project is cooperation between the different areas of the City Council. As a result, knowledge and contributions were sought from the departments of spatial planning, the environment, parks and gardens, water management, heritage, occupation of road space, lighting and civil protection, among others. Although Valladolid did not yet have an urban renaturing strategy as such, the URBAN GreenUP project laid the foundations for renaturing the city within the framework of Valladolid's integrated sustainable urban development strategy, INNOLID 2020+.

ASSESSMENT

LESSONS LEARNED

Valladolid was proud to be part of the URBAN GreenUP project, as it contributes to making cities more sustainable, not only environmentally, but also economically and socially, making them more attractive, competitive and inclusive, and more resilient to climate change. As we have seen in this project, urban renaturing was approached as a **horizontal strategy** and nature-based solutions were not considered to be just environmental issues, but also required the participation of urban planning actors. As a result, a number of specialists such as architects, planners and educators took part, along with citizens, including both qualified professionals from the academic world and the general public.

GOVERNANCE AND PARTICIPATION

Nature-based solutions provide sustainable, cost-effective, versatile and flexible alternatives for a variety of purposes in the service of cities. Urban renaturing measures have proven to be effective in combating climate change and reducing carbon emissions. Working with nature, rather than fighting it, can pave the way for a more efficient, competitive and environmentally friendly economy. Nature-based solutions can also help create more jobs that can contribute to economic growth through developing, manufacturing and deploying new products and services that enhance natural capital rather than deplete it.

SUSTAINABILITY

There is a growing recognition that nature can provide viable solutions that deploy the properties of natural ecosystems in an intelligent way. Nature-based solutions are inspired actions that provide ecosystem services to tackle environmental, social and economic challenges.

Fig. 6. Aerial photograph of Valladolid.

Fig. 7. URBAN GreenUP in Valladolid (1)

Fig. 8. URBAN GreenUP in Valladolid (2)

Fig. 9. URBAN GreenUP in Valladolid (3)

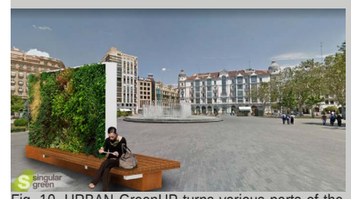


Fig. 10. URBAN GreenUP turns various parts of the city green.

DATA

LOCATION
Cuenca, Castilla-La Mancha.

ACTORS
· Cuenca Town Council.
· KHORA URBAN THINKERS, S.L.
· University of Castilla-La Mancha.
· Instituto Europeo di Design.
· Forest Stewardship Council.
· Technical University of Madrid.
· CEOE CEPYME.
· D.G. of the Environment and Biodiversity
· ACMSA (Ayuntamiento de Cuenca Madera S.A.).

DATES
· 2019: Official presentation of the Plan.

SOURCES
https://uiacuenca.es/

RECOGNITION
OTAEX Award 2019 in the category of Urban Planning and Environment.

PHASE
Under development.

SUMMARY

URBAN FOREST INNOVATION LAB (UFIL) operates in Cuenca, which is the municipality with the **largest forested area** in the European Union, with more than 53,000 hectares of managed forests, some of which date back to the 19th century and originate from a donation made by the King of Castile, Alfonso VIII, in 1177.

UFIL combines project-based learning, tutoring, incubation and acceleration of innovative ideas related to the forest bioeconomy. This project is looking for people with a desire to develop an entrepreneurial initiative who have a creative and innovative ability, offering them the chance to take part in a laboratory to develop their business idea. To this end, a ten-month programme that combines training, mentoring and coaching is offered free of charge. The project is based on real business challenges and a personal project is carried out in collaboration with the best experts in the sector, with integrated training on the forest bioeconomy, design and innovation, sustainability and forest management, and entrepreneurship. There are grants for the unemployed, and help to cover accommodation and living expenses for those who are not from Cuenca.

The laboratory for this project is located at the Institute of Technology, Construction and Telecommunications (ITCT) of the University of Castilla-La Mancha. Its aim is to bring **together the research** carried out at the University and, in our case, to help promote the intelligent, integrated, sustainable and productive use of the materials provided by the forest in Cuenca.

OVERVIEW

OBJECTIVES

The primary objective is to provide a platform for people and companies who want to get involved in a forest innovation lab and who want to support entrepreneurship in the city, regardless of whether they are involved in the forest bioeconomy or not. The project offers support in solving a challenge related to the **forest bioeconomy** with forestry specialists, designers and technologists who will work to exploit different innovative solutions. Therefore, the solution process will be supervised by professionals who will ensure the excellence and cross-cutting nature of the solution.

RESULTS

The business projects generated respond to eco-sustainable ideas devised in the field to improve life in cities. As a result of the initial results, it was agreed that special recognition would be given to the best projects submitted in the first year. These **projects** follow very different approaches and already have their own commercial names: ESENCIAS SILVESTRES, MOST, HOME2BEE, NEMÉTONA, NÓMADAS, SYLVAN, BYOTA, CAMBIUM, GEFOREST, PEOPLE FOCUS, MYCOLAB, JARALAB, CLAREO FORESTAL, PANOVI20, FIBERCOR and AXIS. Some of these that stand out for their special interest, originality, technology, use or impact are described below.

The first is a service company, COMPENSA, which focuses on calculating and offsetting carbon footprints. It is aimed at two groups of users - one line of business is aimed at companies, for which it offers the service of calculating and offsetting their carbon footprint and developing corporate social responsibility initiatives through projects aimed at preventing forest fires.

The other line is aimed at private users, who are offered the chance to offset their carbon footprint by contributing to reforestation projects in different ways. https://www.co2mpensa.es/

The ESENCIAS SILVESTRES business project is an artisan distillery dedicated to manufacturing and distributing essential oils and floral waters of Scots Pine (Pinus Sylvestris), Spanish Sage (Salvia Lavandulifolia), Lavender (Lavandula Latifolia) and Rosemary (Rosmarinus Officinalis), which are aromatic and medicinal plants collected wild in the forests of Cuenca and distilled using the traditional steam distillation technique, and then sold online to wholesalers, retailers and end customers, and through traditional channels to local businesses. https://www.esenciassilvestres.com/

MOST is a brand of furniture and accessories for the home, which was created to bring a **sustainable and traditional approach** to the world of furniture. It offers decorative solutions that are environmentally friendly, made of local materials by local craftsmen. They respect the skills of traditional craftsmen to offer quality furniture and decoration, with a modern aesthetic but without neglecting traditional inspiration. https://most-deco.com/

HOME2BEE offers a range of local actions in different locations aimed at achieving a high impact in terms of diversity of bee species. To this end, they have designed shelters for solitary bees exclusively with their well-being in mind when nesting, as well as bearing the aesthetics of the product in mind and manufacturing it with sustainable materials. Moreover, they have set up a network to locate and eventually breed native bees to improve pollination and food production in the “Europe’s vegetable garden” (Spain).

Lastly, NEMÉTONA is based on manufacturing and marketing innovative construction solutions for sustainable construction made from local raw materials from the forests of Cuenca. In the first implementation phase, cross-laminated timber panels, made of Scots pine and Austrian pine (two of the most resistant coniferous species in Europe) grown in Cuenca, will be offered, which will provide an alternative, zero-kilometre construction solution to allow planners to design more sustainable buildings.

DESCRIPTION

This forest bioeconomy project was split up into a number of **thematic strands** that are directly related to the forest bioeconomy: (1) biodiversity services, (2) wood engineering, (3) carbon storage and timber resources, (4) biomass and biofuels, (5) forestry management and use technology, (6) chemistry of wood and new materials, (7) forests for water, (8) resin, (9) agroforestry products, (10) mycology, (11) design from forest products and (12) extensive hunting.

(1) Forest biodiversity makes it possible to create services that are in harmony with our environment. It is about adapting services to the enormous wealth of the forest, making use of its diversity in a responsible and sustainable way.

(2) Wood is making a comeback in construction because of its excellent qualities of durability and strength, combined with its sustainability due to its carbon sequestration capacity. It is a material with multiple uses in the sector and is extremely strong compared to its own weight. It provides an alternative for public works as it allows for quicker, more agile interventions.

(3) Forests are one of the most important CO2 sinks on the planet, yet many activities that contribute to increased CO2 sequestration are not recognised on the emissions market. There is an opportunity to include forest management as a mechanism for **increasing CO2 sequestration capacity** and generating emission allowances.

(4) The thermal energy produced by the biomass generated from forest waste makes it possible to complete the forest cycle.

Fig. 1.Urban Forest Innovation Lab Cuenca.

Fig. 2. Logo of the municipal timber factory.

Fig. 3. Confederation of Entrepreneurs of Cuenca

Fig. 4. University of Castilla-La Mancha.


Fig. 5. Forestry resources.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

(5) Technology contributes in a cross-cutting way to more effective and efficient forestry management and uses. These uses include data processing for inventories and action planning, blockchain for more precise control of the chain of custody, using drones for fire prevention and specific machinery to optimise forestry use.

(6) Chemical by-products from wood make it possible to develop new materials to **replace less sustainable products**. Bioplastics can be developed from lignin to replace those from fossil sources. Cellulose makes it possible to create new textiles that consume fewer resources. Nanocellulose can be used to develop lightweight, ultra-strong materials such as armour, cars and healthcare products, and can help improve other products such as plastics and paper.

(7) Water supply is an ecosystem service provided by forests. The development of new technologies for obtaining water, improving the water cycle and making water management and supply more efficient is a growing demand, particularly in Mediterranean countries, increasing their resilience to climate change, maximising the use of available water and increasing its environmental value.

(8) Exploiting resin makes it possible to obtain products with a very high added value. Rosin and turpentine, obtained through distillation processes, are essential in the production of flavourings, paints, vitamins, cosmetics etc.

(9) **The biological diversity of forests** makes it possible to obtain other products apart from wood in a sustainable way, such as wicker, aromatic plants, honey and wild fruits to produce craft products.

(10) Mycology is a booming sector that combines gastronomy and leisure. There are opportunities for innovation from mushrooms, from the production of derivatives and from the conservation of the species through responsible consumption. Mushroom gathering and truffle farming require tools that make it possible to preserve mushrooms in the medium term in order to create quality gastronomic products.

(11) Forest-generated products contribute to sustainable design by replacing more polluting or resource-intensive products. Innovation in the design of everyday objects using **ecological, high-quality, environmentally friendly materials** is a unique opportunity for setting up green companies that are benchmarks in the design, creativity and use of natural resources.

(12) The hunting sector has great potential for creating sustainable businesses. These activities include breeding game species, managing game hunting and research on and conservation of species. It also offers a wide range of possibilities for developing tourist, environmental and recreational activities with the aim of providing new perspectives on forest fauna.

REGULATORY FRAMEWORK

The **programme** was designed to encourage participants' to be creative, using their technical knowledge, imagination and entrepreneurial skills. The main areas of theoretical and practical content are: (1) design and innovation of products and services in which design thinking methodologies and the steps in a creative process are applied to developing eco-intelligent and cost-effective solutions, approaching it from concepts of open innovation; (2) forest bioeconomy, covering emerging trends in the sector, bioeconomy business ecosystems, new forest-based products and the business and employment opportunities offered by the forests of Cuenca; (3) sustainability, which reflects on and shares the current framework for the planet's sustainability and delves into aspects such as the circular economy, ecosystem services, biomimicry and sustainability in business; (4) leadership, which helps participants develop teamwork and 21st century skills, such as managing complexity and problem solving with critical thinking, and lastly; (5) entrepreneurship/start up, using proven tools for agile development adapted to forestry-based entrepreneurship, the circular economy and the type of investors in the sector.

The methodology used is project-based learning and the principle of "**learning by doing**", underpinned by creativity, group work and prototypes. The contents are taught by applying them to real challenges in the Cuenca forest and the end goal is to help entrepreneurs develop a business idea in the final phase. It is aimed at people from the European Union who are motivated towards entrepreneurship with business ideas based on the forest bioeconomy in Cuenca. No previous experience or studies related to the sector are required. This project is part of a European project launched by the city of Cuenca in collaboration with a group of local and national public and private partners, coordinated by Cuenca Town Council and KHORA URBAN THINKERS, S.L.

ASSESSMENT

LESSONS LEARNED

The wealth of forest biodiversity makes it possible to **develop services** that are in harmony with nature. It is about adapting services to the natural wealth of the forest, making use of its diversity in a responsible and sustainable way. These services include green tourism, creating opportunities for entrepreneurship through care and knowledge of the environment, education and sporting and cultural leisure activities.

The **revival in the use of wood** in construction, due to its good qualities and its ability to retain carbon, makes it an ideal material for the sector. In addition, its strength in relation to its weight makes it enormously attractive for use in public works, as it makes it possible to build lightweight constructions quickly.

The use of forest waste to produce thermal energy through biomass completes the forest cycle. Biomass makes it possible to recover waste from forestry management that has no other use, or products that have reached their maximum technical capacity. This use of every last product from forestry management means that the value of the entire product chain must be enhanced.

GOVERNANCE AND TRANSFERABILITY

This type of experience, which combines project-based learning and the development of **innovative ideas**, may be an opportunity to stimulate economic sectors that are unknown in many parts of Spain. Committing to creative initiatives and developing them in sectors such as forestry improves harmony with nature, green tourism and sustainability, and creates employment opportunities through care and knowledge of the environment.

SUSTAINABILITY

Forests are one of the most important **CO2 sinks** on the planet, yet many activities that contribute to increased CO2 sequestration are not recognised on the emissions market. There is an opportunity to include forest management as a mechanism for increasing CO2 sequestration capacity and generating emission allowances. This enhancement makes it possible to carry out new economic activities that contribute to a better management of the forest.

Fig. 6. Forests in the Serrania de Cuenca.

Fig. 7. Machinery used.

Fig. 8. Field work.

Fig. 9. Classwork.

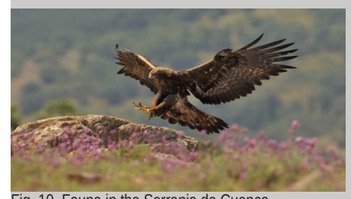


Fig. 10. Fauna in the Serrania de Cuenca.

DATA

LOCATION
Sestao, Vizcaya, Basque Country.

ACTORS
· Sestao Town Council.
· Soociedad Sestao Berri 2010.
· Department of Territorial Planning, Housing and Transport of the Basque Government.

DATES
· 2005 Start date.

AREA OF ACTION
3,5 km^2.

SOURCES
Official website of Sestao Berri:
http://www.sestaoberri.eus/

RECOGNITION
AVS Awards. Runner-up in the "Best environmental management" category.

PHASE
In progress.

SUMMARY

Sestao Berri is a public company 50% owned by the Department of Territorial Planning, Housing and Transport of the Basque Government and 50% by Sestao Town Council. It was created in 2005 with the aim of being a tool for organising the **urban regeneration** of Sestao, while at the same time acting with the neighbourhood communities on a social and coexistence level.

The company's activity revolves around three main lines of work: rehousing, refurbishment and management of municipal housing. Sestao currently has 218 social rented housing units. More than half of them (208 to be precise) make up the municipal housing stock, which is mostly used for re-housing purposes.

It is worth mentioning the **Txabarri El Sol** strategic regeneration project. After a fatal fire at No. 65 which caused the death of two people, it became clear that the urban regeneration of the lower area "needed to be carried out urgently" and the urgent need for 'decisive' engagement with the neighbourhood was repeatedly made to the Basque Government's Department of Housing. The Txabarri el Sol refurbishment project involves more than 25 buildings, including the fire-damaged building. The company contracted by the town council to help it design Txabarri SestaOn Bizi began its work by carrying out an assessment of the neighbourhood. The information was gathered via individual interviews and group forums with the aforementioned actors, and the data obtained led to an Action Plan, a roadmap for improving the situation in the neighbourhood.

The town council called on the housing department to start the refurbishment plan as soon as possible. They have been working in the neighbourhood for more than 15 years with an investment plan that includes the demolition of substandard housing, the construction of more than 120 social rented housing units and the improvement of some of the public spaces such as Vicente Díez Park, the site where the houses in Calle Carranza used to be, at the back of Txabarri numbers 57 to 61.

OVERVIEW

OBJECTIVES

The Txabarri SestaOn Bizi Action Plan was divided into four main lines of action –citizens, coexistence and social cohesion, infrastructures and economic outreach– and proposed a total of **36 measures** to be implemented in the period 2019-2022.

As far as citizens were concerned, there was a general subsection in which the main objectives were the creation of a mediation service and the setting up of a conflict management team dedicated to dealing with conflict situations that caused social unrest. At the same time, a political working group was set up to work together in the area, thereby increasing the institutional presence in the neighbourhood, meaning that there would be greater coordination between the political and technical spheres and the associations. Finally, a housing allocation policy was implemented, giving priority to non-confrontational people who want to settle in the neighbourhood. In terms of leisure and culture, the idea of creating a cultural offer for all citizens was proposed. In the area of coexistence and social cohesion, a civic-mindedness programme was launched, which was extended to all areas of the population, consistent over time and linked to the work programme for the benefit of the community.

As regards infrastructure, the **Action Plan** proposed three measures within this area. The first was to continue with the urban regeneration of the neighbourhood. The second was the launch of a programme to promote other profiles for access to housing. Linked to this idea, the third measure was to promote a programme to promote rentals for young people.

In terms of economic outreach, the Action Plan included two measures – the organisation of educational programmes focused on **social integration**, and the organisation of training courses to attract professionals to Txabarri.

BACKGROUND

Sestao is 11 kilometres from Bilbao and has a population of around 28,000 inhabitants (2016). It was one of the municipalities that flourished during the industrial boom of the 19th century in Vizcaya. The district where the area to be renovated is located is in the lower part of Sestao and is one of those most affected by the process of **deindustrialisation,** which began in the 1990s and which has had a strong impact on the local economy. Today, the unemployment rate in the area is over 30%.

These are residential buildings that were built to house the workers of the Altos Hornos company, most of them with wooden structures, in poor condition and between 80 and 100 years old.

Most of the homes are in public ownership, although some are privately owned. In addition to these buildings, there are more modern buildings in the area, built in the 1980s, which are very run-down due to lack of maintenance, and which constitute part of the municipal rental housing stock.

DESCRIPTION

In line with the Basque Government's claim of "Commitment to people", the Department of Employment and Social Policies has been carrying out a policy of refurbishing buildings and urban regeneration with an emphasis on the social component. It is a scenario based on a fundamental premise: the value of people's dignity, in that they deserve to have a place where they can lead their lives.

Now more than ever, society is calling for an **efficient use of resources**, hence the need for institutions to take on intervention strategies in the housing and land markets, which, to a large extent, have been channelled largely through the public company Sestao Berri for the last 10 years in Sestao.

Sestao Berri is a company contracted by the town council which began its work by carrying out an assessment of the neighbourhood. The data obtained led to an Action Plan (Txabarri SestaOn Bizi). This was used as a roadmap to improve the situation in the neighbourhood.

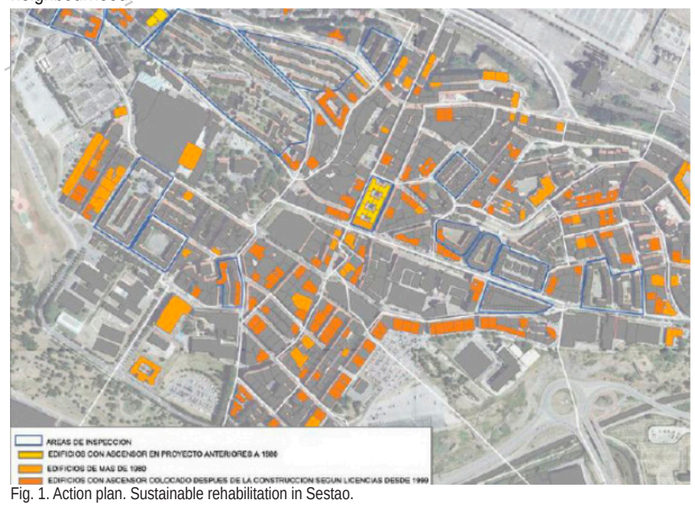


Fig. 1. Action plan. Sustainable rehabilitation in Sestao.


Fig. 2. Renovation of the façades and roofs of 14 entranceways in the El Patronato district.


Fig. 3. Image de Sestao Berri.


Fig. 4. Txabarri. Numbers 25 to 31 - before the work


Fig. 5. Txabarri. Numbers 25 to 31. Photo montage of the refurbishment work.


Fig. 6. Imagen de Sestao Berri.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.6 Improve the quality and sustainability of buildings.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

The Action Plan is divided into four main lines of action: coexistence and social cohesion, infrastructures and economic outreach, with various projects, in total 36 measures to be implemented in the **period 2019-2022.**

In socio-community management, the projects that stand out are social participation projects such as mock-up presentations, encounters between cultures, guides on how to build coexistence and documentary videos; community projects that include workshops and courses on adapting housing; work placement projects that include programmes for coexistence and intervention officers such as employment workshops; and projects to eliminate substandard housing in the areas of Rivas, Urbinaga, Simondrogas and Txabarri, manage rehousing and provide access to housing and rental management. As far as managing innovation projects is concerned, the these include the **Housgai project** on active ageing and European funded projects such as EU-GUGLE, PAPIRUS, TRIME and NeZer. This was a collaboration in the drafting of the Integrated Sustainable Urban Development Strategy for Sestao as part of a sub-section of State-funded projects.

In short, the work of Sestao Berri did not only focus on the reconstruction and construction of buildings, but also put special emphasis on managing neighbourhood communities on a social and coexistence level in the lower part of the town.

RESULTS

Many of the intervention projects in the Txabarri area have now been implemented:

- The ICT project for Txabarri Nos. 25, 27, 27, 29 and 31 is a common telecommunications infrastructure project carried out in June 2011.

- In 2017, the refurbishment work on the main façade of Txabarri 73 was completed, and a solution was found to the floor structure problems at Txabarri 65.

- Another of the projects already completed by 2020 was the complete refurbishment of the façades and roofs of five residential buildings in the Txabarri-El Sol area of Sestao, which were “in an advanced state of disrepair”. With a budget of three million euros, professionals from Andrasa acted to “improve the general state of construction” and provide the blocks of flats with insulation to reduce energy consumption for heating and hot water.

- As far as managing the municipal housing stock for rent in Sestao is concerned, 2017 ended with an occupancy rate of 95.73%, average rent of 83.05 euros, a default rate of 1.63% and revenue of 113,837.66 euros. The Sestao municipal housing stock was the subject of the European TRIME project for **reducing energy consumption** in social housing.

- Another project carried out was the complete refurbishment of Txabarri, from numbers 25 to 31, with the promotion of 47 new homes, of which 33 are subsidised housing and 14 are private homes.

- Throughout 2017, significant progress was made in rebuilding 18 subsidised housing units in blocks 33 and 35 of Calle Txabarri and work began on Txabarri 55, following the sale of this site, on which 10 private housing units will be rebuilt.

- Txabarri numbers 37 and 43 were restored to tackle the structural problems.

- A project was completed to install a neighbourhood heat distribution network, ‘**District Heating**’ which will connect around twenty buildings. The initiative ran from 2017-2019.

- As far as the urban regeneration process is concerned, the actions carried out include covering the pelota court and remodelling Parque del Sol.

- Lastly, work was carried out in Txabarri as part of the **EU-GUGLE energy refurbishment** project.

PROCEDURE

The work to carry out the projects in Sestao was consolidated by means of a process management system based on the EFQM model:

Process 1: it was responsible for planning and innovation, with particular emphasis on the municipal elections in May 2019 and the negotiation of the First Administrative Agreement between Sestao Town Council and the Department of the Environment, Territorial Planning and Housing on February 28, 2019.

Process 2: this was an operational process that was responsible for managing the refurbishment, regeneration and urban renewal, access to and management of housing.

Finally, Process 3: this was a support process aimed at managing resources and systems. In March 2019, work came to an end on the buildings subject to action as part of this European project in Sestao: Txabarri. Another project worth mentioning is + City Xchange, which involved the regeneration of positive energy districts, including Ari Txabarri-El Sol.

REGULATORY FRAMEWORK

The following strategic documents were taken into account when drawing up the Sestao Urban Agenda - the Municipal Legislature Plan 2019-2023 was the first to be drawn up within the framework of Law 3/2015 of June 18, on Housing. Also taken into account was the 2018-2020 and 2020-2023 Housing Master Plan, which aimed to promote the growth of the public rental housing stock so that it could ensure the right to housing and meet the needs of the groups with the greatest difficulties. Other related documents are the Recovery, Transformation and Resilience Plan, the Españapuede Plan, **Euskadi Next,** and the Basque Recovery and Resilience Programme 2021-2026. The PERRI Txabarri, El Sol and the General Urban Development Plan are also related.

ASSESSMENT

LESSONS LEARNED

In line with the Basque Government’s claim of “**Commitment to people**”, the Department of Employment and Social Policies has been carrying out a policy of refurbishing buildings and urban regeneration with an emphasis on the social component. Now more than ever, society is calling for an efficient use of resources, hence the need for institutions to take on intervention strategies in the housing and land markets, which, to a large extent, have been channelled largely through the public company Sestao Berri for the last 10 years in Sestao.

GOVERNANCE AND TRANSFERABILITY

The work of Sestao Berri did not only focus on the reconstruction and construction of buildings, but also put special emphasis on managing neighbourhood communities on a social and coexistence level in the lower part of the town. It is hoped that all of the neighbours were **aware of the work** carried out under Sestao Berri, which is something that is often unknown.

Fig. 7. Refurbished building.

Fig. 8. Txabarri. Re-construction of buildings 33 to 35.

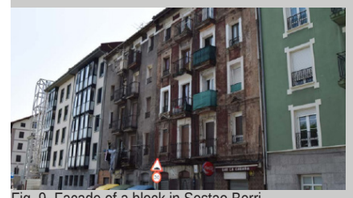


Fig. 9. Façade of a block in Sestao Berri.

Fig. 10. Work began in July on the construction of 18 subsidised housing units in Txabarri.

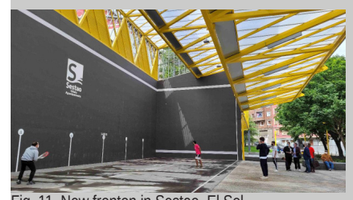


Fig. 11. New fronton in Sestao, El Sol.

DATA

LOCATION
Burgos, España.

ACTORS
·Burgos City Council.
·Provincial Council of Castile and León.
·Canal A4 Urbanismo y Arquitecura SLP.
·CRA Community Platform for the San Cristobal neighbourhood in Burgos Association.

DATES
· 2017: Start of implementation of the project.
· 2020: Project in progress.

AREA OF ACTION
12,30 Ha.

SOURCES
City and territory, territorial studies, Urban Regeneration Area of the San Cristobal neighbourhood in Burgos. Ministry of Transport, Mobility and Urban Agenda:
https://recyt.fecyt.es/index.php/CyTET/article/view/78369/48408

PHASE
In progress (65% of homes refurbished by 2018).

SUMMARY

The proposal is located in the district of San Cristobal, in the northwest of the city of Burgos. It is a **residential** neighbourhood from the 1960s, with 500 homes that make up a new urban unit with its own identity, physiognomy and a marked social dimension. It was one of the public initiative projects of its time.

Over the years, problems in the buildings and public spaces in the neighbourhood began to be identified, which led to protests from the residents.

Mobilisation of the public led to the drafting of a regeneration project for the San Cristobal neighbourhood, which led to it being declared a comprehensive regeneration area (CRA), which was adapted to the urban planning regulations in force at the time, the Burgos General Urban Development Plan.

The project was approved in 2017 and its main actions were aimed at improving the quality of life of the residents and improving the living conditions in the homes.

As far as the surrounding area of the neighbourhood was concerned, the objectives were to promote economic activity that would lead to comprehensive development by attracting new businesses, creating commercial premises and regenerating public areas to benefit the cohesion of the urban fabric and revival of the neighbourhood's lost identity and its relationship with the city.

OVERVIEW

OBJECTIVES

The main actions to be carried out in the three planned phases were:

- To improve the quality of life of the residents and the living conditions of their **homes**, solving existing pathologies and the energy performance of these homes by working on the thermal envelope, with the solution of a ventilated façade and roof insulation.

- To drive economic activity in such a way as to enable comprehensive development in the neighbourhood by attracting new businesses, creating new premises and regenerating public areas.

-To regenerate and refurbish **public areas** to adapt them to new demands and new areas generated to benefit the cohesion of the urban grid and the resurgence of the lost identity of the neighbourhood and its relationship with the city.

BACKGROUND

This is a neighbourhood from the 1960s, developed as a result of the strong growth that the city underwent due to its industrial revitalisation. The project included housing units with a limited sale price due to their social nature. In 1974, six years after the project was approved, the 500 housing units that made up the project had been completed. Over the years, the neighbours began to complain about the poor state of the building and tried to solve the problems themselves, but the building solutions did not work.

The neighbourhood's image and the red brick walls and façades in particular, which time had **deteriorated** and aged, also suffered from thermal and watertightness deficiencies, which were evident in the form of damp due to condensation or flitration due to cracks in the façades of the blocks.

DESCRIPTION

The San Cristobal neighbourhood is located in the north-east of the city of Burgos and is bounded to the north by the River Vena and to the south by a road that physically separates it from the Gamonal-Vilimar industrial estate. Its declaration as an **Comprehensive Regeneration Area** (CRA) in 2013 included other buildings located on the other side of Calle del Alcalde Martín Cobos, of a similar type and with similar urban characteristics, in addition to the buildings in the San Cristobal neighbourhood itself.

Therefore, the area was made up of the 26 open 5-storey blocks of flats in the neighbourhood, and 3 others outside it. This residential programme was complemented by three institutional spaces: the cultural centre, a velodrome, and a football pitch where no work was done.

A proposal was made to **raise awareness** about the neighbourhood's presence in the city and to recognise the process of progressive deterioration of the infrastructures and buildings. The building pathologies and lack of maintenance of the urban development made up the lines of action.

The main pathologies were mainly caused by the lack of a thermal envelope in façades, roofs and colonnades. In addition, the brick façade rested directly on the edges of the sill slabs, causing cracks in the façades that were visible from the outside.

Studies prior to the works revealed that the various thermal bridges were the cause of all kinds of condensation in the inner chambers and walls, as well as seepage through the various façades and window frames.

Severe capillary problems from the foundations also emerged in the ground floor apartments, as the concrete base started to come directly away from the continuous footing itself.

As this was an area of action with a homogeneous building type, with similar problems shared by the different blocks, the refurbishment was systematic, thereby ensuring that the solution was similar for all of the homes.

Another of the problems considered by the project was **physical accessibility**, with deficiencies in both the buildings and the housing estate as a whole.

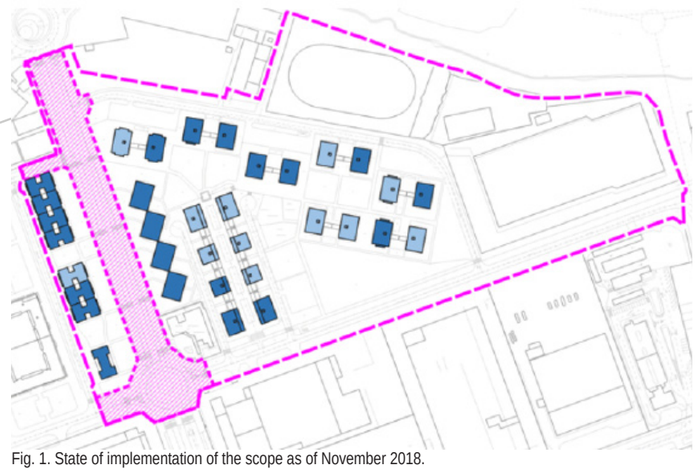


Fig. 1. State of implementation of the scope as of November 2018.

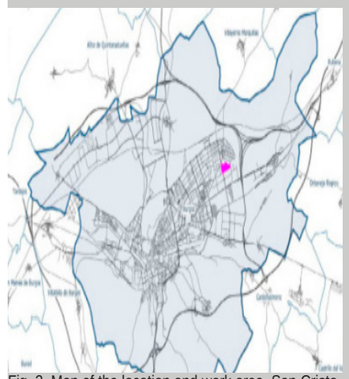


Fig. 2. Map of the location and work area, San Cristobal neighbourhood, Burgos.

Fig. 3. Pre-work condition of the neighbourhood.

Fig. 4. Relationship of the area of action with the current urban planning regulations in the General Urban Development Plan 2014.

Fig. 5. Relationship of the area of action with the current urban planning regulations in the General Urban Development Plan 2014.

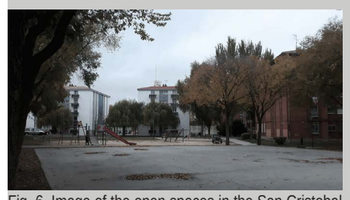


Fig. 6. Image of the open spaces in the San Cristobal neighbourhood.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

2.2 Ensure functional complexity and diversity of uses.

2.4 Improve the urban environment and reduce pollution.

2.6 Improve the quality and sustainability of buildings.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG5 PROMOTE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

The housing estate had architectural barriers across the entire range of uses associated with both public and private leisure spaces.

To solve these problems, **lifts** were installed inside the blocks of flats and accessibility problems from ground level were solved by constructing access ramps.

RESULTS

The evaluation of the policies analysed in the case of the San Cristobal neighbourhood was defined by the state of execution of the project, which, although at quite an **advanced** stage, has not yet been completed.

64.71% of the entranceways and 65.22% of the homes have been completed, and the work on public areas, in particular, is still pending. The results achieved include the following:

- Thanks to the community platform and their support, goals have been achieved with broad support for the administrative and management processes.

- From the outset, the possibility of giving the area its own character and identity through the finish of the buildings and using specific colours on the coloured strips was considered, which would clearly differentiate it from the homogeneity of the area with the previous brick finish, but it did not quite fit in with the image that the residents wanted for the neighbourhood.

- In addition, each of the refurbished buildings took on the name of one of the milestones along the Way of St. James, despite keeping their traditional numbering. As well as the new envelopes for the facades, lifts were installed in each block of flats and new street furniture was installed.

PROCEDURE

The original project for building the 500 homes in the San Cristobal neighbourhood was drawn up in 1968. These homes were built in 1974..

In 1999, the CRA was approved and, in 2015, the San Cristobal neighbourhood began the administrative procedures to declare the area a **Comprehensive Regeneration Area (CRA).**

During this time, a consensus was reached on the processes and objectives to be passed on to the Public Administrations - Burgos City Council and the Regional Government of Castile and León - prior to their declaration.

Finally, a document declaring the Comprehensive Regeneration Area was produced.

In 2017, the San Cristobal **neighbourhood regeneration** project began, with three development phases. By 2018, 65% of the dwellings had been refurbished and by 2020 the implementation project had been completed.

REGULATORY FRAMEWORK

The actions proposed were adapted to current urban planning regulations and to the Burgos General Urban Development Plan. The following urban planning regulations that were pending provisional approval at the time were also taken into consideration:

- The 2014 General Urban Development Plan.
- The State Housing Plan.
- The document for the plan, the CRA.

ASSESSMENT

Among the lessons learned, it is worth mentioning the considerable participation of the neighbours. Thanks to the CRA Community Platform for the San Cristobal neighbourhood in Burgos Association, a project to completely regenerate the neighbourhood was launched, based on a broad consensus among all the actors involved in the proposed actions.

The agreements were preceded by a major **communication** and information campaign to each of the neighbourhood's residents, and their associations and representatives, in a process that lasted 6 years.

The role of neighbours in decision-making is still very important to this day.

GOVERNANCE AND TRANSFERABILITY

The management involved the participation of residents inside and outside the neighbourhood. Residents were integrated under the name "CRA Community Platform for the San Cristobal neighbourhood in Burgos" Association and, together with Burgos City Council, constituted the "San Cristobal Burgos Association for Urban Regeneration (AUR)", as a **partner entity** for managing grants in May 2015 (legal services, accounting, auditing and tax services).

As far as the financial resources were concerned, the funding formula planned for the project was set out in Royal Decree 233/2013 of April 5 for urban regeneration and renovation, 2013-2016.

This model included **grants** for refurbishing homes and buildings and dealing with situations of substandard housing, for a maximum amount of 40% of the total, with a maximum average amount per refurbished home of €5,000; a number of grants for development and redevelopment works in public areas, for a maximum amount of 20% of the total; and grants to partially fund the cost of information and management equipment, the maximum amount of which may not exceed 50% of this, or 5% of the total protected budget for the CRA.

20% of the total investment will be borne by the residents of San Cristobal and 80% will be provided by the three institutions involved, i.e. the State, the Junta and the City Council. The latter is estimated to have contributed 30-40%. The formula was very similar to the action carried out in the River Vena CRA.

In terms of human resources, there was significant participation by residents inside and outside the neighbourhood.

SUSTAINABILITY

The neighbourhood has improved significantly in terms of social activities, economic activity, improvement in the environmental quality of the neighbourhood and the health of citizens, with an emphasis on the construction of ventilated façades, thereby resolving thermal transmittance and any leaks or broken or worn out parts that existed before, all of which was perfectly in line with the Sustainable Development Goals and the Urban Agenda.

It can be said that the capacity to channel the will of citizens through participatory mechanisms in the process of drawing up and implementing the proposal has helped the integration of this **social sector** that was at risk of exclusion through public areas and improvement in the quality of their lives.

The project was in line with the three cornerstones of sustainability, the 2030 Agenda and the goals of the Spanish Urban Agenda.

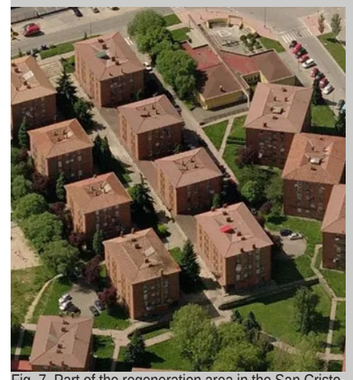


Fig. 7. Part of the regeneration area in the San Cristobal neighbourhood.

Fig. 8. State of the work done in 2018, where the new identity of the neighbourhood can be seen compared to the previous one.

Fig. 9. Recreation of one of the buildings, as per proposals being studied by CANAL A4.

Fig. 10. Block of flats in the San Cristobal neighbourhood.

Fig. 11. Block of flats in the San Cristobal neighbourhood.

DATA

LOCATION
Mula, Murcia.

ACTORS
· Mula Town Council.
· URBACT network.
· Polytechnic University of Cartagena.

DATES
· Since 2019.

AREA OF ACTION
Upper neighbourhoods.

SOURCES
Mula Town Council:
https://mula.es/web/urbact-proyecto-kairos/

PHASE
Drawing up the action plan.

SUMMARY

The town of Mula, together with seven other European municipalities, is taking part as a partner in Kairós, a network of the URBACT III programme, co-funded by the European Regional Development Fund. The URBACT network was created to promote sustainable urban development by enabling towns and cities to work together, build on each other's experiences and strengthen their local capacities. Each project partner develops its own "Integrated Action Plan" to address specific problems and determine a strategy to achieve its local goals. This project benefits the towns and cities taking part, but also makes it possible to transfer knowledge to other towns and cities of a similar nature.

The **Kairós project** is led by the town of Mula and focuses specifically on finding innovative solutions to regenerate run-down historic areas with a valuable cultural and natural heritage. These areas can be an effective tool for improving urban structures, social revitalisation, promoting tourism and local economic growth. The term Kairós, which gives its name to this project, comes from ancient Greek and translates as "the right time". It is a concept from Greek philosophy that refers to a period of time in which something important happens.

OVERVIEW

OBJECTIVES

This project aims to promote the transnational exchange of experiences with a view to designing an innovative methodology for urban management, helping towns and cities tackle the recovery of historic areas where cultural heritage exists but which are subject to processes of urban and social deterioration. Mula Town Council is leading the project in which **seven other European towns and cities** are taking part: Šibenik (Croatia), Heraklion (Greece), Ukmergė (Lithuania), Bragança (Portugal), Belene (Bulgaria), Catania and Cesena (Italy). All of these places are united by a rich cultural heritage concentrated in their neighbourhoods and historic centres, which are undergoing a serious process of urban and social deterioration. In the case of Mula, the upper districts of El Pontarrón, El Carmen and Los Molinos are in this situation.

BACKGROUND

The problem with the medieval neighbourhoods in the town of Mula is that they are immersed in a **slow, gradual process of deterioration**, from all points of view: urban, economic and social. These neighbourhoods are located in the upper part of the town, specifically on the slopes of a hill, and have been declared a Historic-Artistic Site since 1981, which contrasts with the current situation of decadence.

From an urban planning point of view, there are serious accessibility and mobility problems due to its hilly topography, with a number of steep, narrow streets. In addition, there is very little public space dedicated to squares, parks and car parks and many of the houses are boarded up, abandoned or dilapidated. As in similar situations, many of these properties belong to banks.

From an economic point of view, these neighbourhoods lack businesses and basic services, forcing their inhabitants to travel to the town centre and new neighbourhoods to do all their business. And from a social point of view, there are entire streets that are practically unoccupied. Where homes are inhabited, they are inhabited by elderly people with mobility difficulties or by immigrants. There are also problems related to coexistence and drug trafficking.

As can be seen, this complex situation requires a solution to urban, economic and social problems in an integrated manner. To do this, it will be necessary to regenerate the area by eliminating poverty and building social cohesion. The urban environment needs to be improved to make it accessible and inclusive and to improve the quality and sustainability of its buildings. This involves enhancing the existing cultural heritage as a unifying and regenerative element.

DESCRIPTION

This is a planning project whose first goal is to have a comprehensive action plan. This plan, together with the other towns that make up the network, proposes encouraging the exchange of experiences and designing an innovative methodology for urban management called the Kairós model.

The Kairós model seeks the right combination of **five key thematic areas**: (1) governance with a participatory approach to developing urban heritage; (2) enhancement and adaptive reuse of urban space; (3) cultural heritage-based economy as a driver of innovation, entrepreneurship, tourism and job creation; (4) attractive image of neighbourhoods with identity by managing urban spaces; and (5) social cohesion with improved accessibility and inclusion in historic neighbourhoods.

Based on these premises, the cities in the network drew up their comprehensive action plans using a participatory methodology, involving social agents from the affected areas, their residents and all of the municipal bodies and areas from a multidisciplinary approach. In the case of Mula, the Faculty of Architecture of the Polytechnic University of Cartagena has also joined the project.

The project is being carried out in **two phases**: the first phase lasts six months and is used to define the project's objective, identify existing problems, weave the network of European towns and cities, and finally, after a number of transnational meetings in different towns and cities, set out a common approach. The second phase is a twenty-four month phase in which each of the towns and cities, with their local groups, work on drafting their action plans.

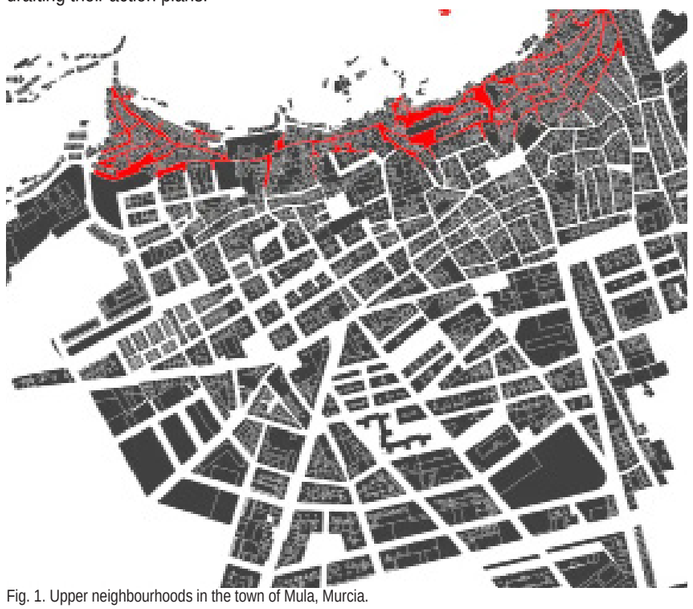


Fig. 1. Upper neighbourhoods in the town of Mula, Murcia.

Fig. 2. Coat of arms of Mula, Murcia.

Fig. 3. Kairós logo

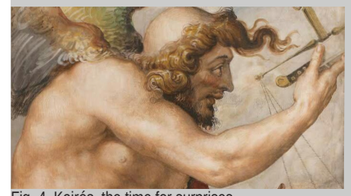


Fig. 4. Kairós, the time for surprises.

Fig. 5. URBACT.

Fig. 6. Detail of the entrance to the historic centre of Mula.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.6 Improve the quality and sustainability of buildings.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.3 Improve the overall quality and accessibility of public spaces.

2.5 Promote urban regeneration.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG8 GUARANTEE ACCESS TO HOUSING

8.2 Ensure access to housing, particularly for the most vulnerable groups.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

The project operates at two levels: local and international. At a local level, each town or city produces a comprehensive action plan, in this case with the participation of local residents, social groups, the local council and the Polytechnic University of Cartagena. At an international level, there is an enlightening exchange of local experiences through the model described above, based on the five thematic areas.

RESULTS

The partner towns and cities of the network want to further develop policies that will make it possible to **enhance cultural heritage, promote new development opportunities for employment and economic activities, and revitalise the town or city.** This project aims to promote social inclusion and the fight against poverty and discrimination, as the dynamics of urban degradation and the lack of employment affect the social integration of the population and their quality of life. To this end, working with people at risk of vulnerability and social exclusion is essential. Social actors, including companies and public and private entities, are also involved in helping to identify the needs of these spaces with the aim of regenerating them as tourist assets and, therefore, as a source of employment.

In short, it is a project involving eight European towns that share a common factor in the existence of neighbourhoods which, although they have an important cultural heritage, have been affected by the closure of businesses and the abandonment of housing. The aim is to **design actions** to halt this trend and recover the lost population, improve the state of cultural resources and promote economic activity by developing tourism products, thereby improving the quality of life of the residents of these neighbourhoods.

PROCEDURE

One of the thematic areas that is already being carried out is the enhancement and adapted reuse of urban areas, for which eight urban actions have been planned: Convent Park, Plaza Martibañez, Carmen Chapel, Calle Revueltas, El Puntarrón, the Archaeological Park and the accessible areas of the Town Walls and the Acequia Mayor (main canal). These actions aim to improve public spaces, by transforming streets and squares and **improving accessibility**. The idea is to improve walking routes and create better access to businesses in order to stimulate the renovation of housing and historical heritage. In short, the aim is to improve the town and the external perception of these neighbourhoods.

This area is one of the five proposed and a total investment of 17,100,000 euros is planned, of which 1,800,000 euros will go to accessibility-related actions, 12,100,000 euros to the action units, 1,700,000 euros to various refurbishments and 1,500,000 euros to management costs.

As explained above, the regeneration plan for the upper neighbourhoods of Mula focuses mainly on revitalising the town by promoting social cohesion, with urban regeneration as a key element. This plan must be framed within the **Spanish Urban Agenda** and several of its strategic goals: spatial planning and rational land use, avoiding urban sprawl and revitalising the existing town, promoting social cohesion and ensuring access to housing.

REGULATORY FRAMEWORK

URBACT is a European exchange and learning programme that promotes integrated sustainable urban development, involving 550 towns and cities, 29 countries and 7000 active local actors. URBACT is funded on an ongoing basis by the European Commission (European Regional Development Funds) and Member States and makes it possible for European towns and cities to work together to develop sustainable solutions to the main challenges they face, sharing good practices and lessons learned and integrating economic, social and environmental dimensions.

URBACT uses **resources** and expertise to strengthen the capacity of cities to deliver integrated urban strategies and actions in response to urban challenges. The programme achieves these objectives by creating thematic networks focusing on different urban issues. Each of these networks has between five and twelve members, including professionals, public administrations, and stakeholders from other public bodies, the private sector and civil society.

Following the success of the URBACT I and II programmes, URBACT III (2014-2020) is being rolled out to further promote integrated sustainable urban development and contribute to implementing the Europe 2020 Strategy. The URBACT III programme is organised around four main objectives: (1) policy development capabilities: improving the ability of towns and cities to manage sustainable urban policies and practices in an integrated and participatory manner; (2) policy design: improving the design of sustainable urban policies and practices in towns and cities; (3) policy implementation: improving the implementation of integrated sustainable urban strategies and actions in towns and cities, and (4) knowledge building and sharing: ensuring that professionals and decision-makers at all levels have access to shared knowledge on all aspects of sustainable urban development in order to improve sustainable urban development policies.

ASSESSMENT

LESSONS LEARNED

Collaboration between different administrations and knowledge exchange is an extraordinary tool in helping to design the right strategic planning. In this case, the URBACT III programme network, co-funded by the European Regional Development Fund, has made it possible to create the Kairós project between Mula and seven other European towns.

Neighbourhoods can only be regenerated in an **integrated manner** that addresses urban, economic and social problems in a cross-cutting manner. It is the only way to eliminate poverty and achieve social cohesion. To do this, the urban environment needs to be improved to make it accessible and inclusive and to improve the quality and sustainability of buildings.

GOVERNANCE AND TRANSFERABILITY

The network of towns in this project is a transferable example for those municipalities that intend to tackle similar problems together. Shared work and knowledge exchange makes it possible to be more accurate in drawing up and interpreting assessments and proposing solutions.

SUSTAINABILITY

The Kairos project is part of the URBACT network, which promotes sustainable urban development by enabling cities to work together, build on each other's experiences and strengthen their local capacities. Each project partner develops its own "**Integrated Action Plan**" to address specific problems and determine a strategy to achieve its local goals. This project benefits the towns and cities taking part, but also makes it possible to transfer knowledge to other towns and cities of a similar nature.

Fig. 7. Mula Town Council.

Fig. 8. Old Town in Mula.

Fig. 9. Mula Castle, from the Old Town.

Fig. 10. Presentation of the plan to regenerate the upper neighbourhoods.

Fig. 11. Mula Castle.

DATA

LOCATION
Arganzuela, Madrid

ACTORS
· Madrid City Council. Government Department of Culture, Tourism and Sports.
· Teatro Español.
· Germán Sánchez Ruipérez Foundation.
· COAM Foundation.
· Madrid Designers' Association.

DATES
· June 2002: Special Plan approved.
· September 2005: approval to amend this Plan.
· March 2006: Presentation of the Matadero Madrid project.
· 2007-2015: Construction, refurbishment and opening of the new buildings that make up the cultural centre.

AREA OF ACTION
165,415 m2.

SOURCES
Matadero Madrid. Mas Matadero Dossier:
https://mula.es/web/urbact-proyecto-kairos/

RECOGNITION
· 2012: Cineteca and Archive and Nave 16: COAM award from the Official Association of Architects of Madrid.
· 2013: Nave 15: special mention of the emerging architect at the Mies van der Rohe Awards.
· 2013: Cineteca: Spanish Architecture Biennial award for the conversion and reuse of buildings.
· 2018: Refurbishment of Nave 17C / Intermediae: COAM +10 Award.

PHASE
Implemented.

SUMMARY

The complete decline in the use of the warehouses of the former abattoir in Madrid, which opened in 1911, led to the closure of the premises in 1996 and with it came the loss of activity in a very important area in the Arganzuela neighbourhood of the capital.

However, six years later, firstly, the Specific Amendment to the General Urban Development Plan was approved, which made it possible to change the use of the abattoir into cultural and leisure activities. Secondly, the Special Plan for intervention, architectural adaptation and urban-environmental control of uses in the area of the former municipal abattoir (El Matadero) was approved, with the aim of restoring the warehouses, revitalising the area, and **improving the quality and sustainability** of the buildings.

The new Matadero Madrid is an international cultural and artistic creation centre that supports and promotes the creative interdisciplinary initiative of the **New European Bauhaus**, which opens up a meeting space for designing future ways of living and stands at the crossroads between art, culture, social inclusion, science and technology.

OVERVIEW

OBJECTIVES

With the overall aim of **revitalising** the area where the former abattoir was located and improving the quality and sustainability of the buildings that made it up, the project's objectives were:

- Finding a balance between respect for the identity of the place itself and incorporating new elements, in order to transform it into a space suitable for a new use.

- Creating an instrument to remedy the lack of production spaces and contribute to nurturing the city's cultural fabric, by creating the first space entirely dedicated to creators, which was accessible and multidisciplinary, and where all forms of artistic expression could have a place.

- Recovering and refurbishing a fundamental piece of Madrid's historical heritage, while fully respecting the spatial and structural organisation of the buildings and providing a new, reversible form of architecture in keeping with the industrial character of the complex.

BACKGROUND

The Arganzuela abattoir and livestock market was an open project from the outset, open to growth. With a surface area of 165,415 m2, the project by the municipal architect Luis Bellido was structured around a series of buildings used for various functions and services: management and administration, livestock markets, a health section, garages, stables and even railway services.

A total of 48 buildings were added and constructed during this period.

In the 1970s, the facilities began to become outdated, and it became an **obsolete facility** unable to serve the city's growing population. Its buildings gradually fell into disuse until, in 1996, the abattoir area was closed down for good. Consequently, it was decided to begin the process of converting the former abattoir into a new space for culture. Thus began a laborious process of architectural adaptation.

DESCRIPTION

The restoration of the former abattoir in Madrid consisted of giving a new use to all of the space that had become obsolete, thereby preventing the area where it is located from becoming run-down and degraded.

The overall project was built on several pillars, the main challenge of which was to open up the site, both physically and symbolically.

The General Urban Development Plan required that both the structure and the exterior façade of each of the buildings included in the catalogue of **protected elements** of cultural interest be conserved, and what was a challenge is today one of the main attractions of Madrid City Council's international cultural and artistic creation centre.

Matadero Madrid was conceived as an ecosystem that houses a **wide range of uses, initiatives and actors** in its buildings. It links artistic knowledge with scientific and technological research.

Matadero Madrid is also a space that promotes inclusion and diversity, carries out specific projects for different communities, and offers a diverse programme in its squares and buildings, with experimental high-quality initiatives.

It is a centre for conversation and debate, for promoting contemporary creation and critical thinking, and for contributing to the renewal of artistic ideas and languages.

As a result, Matadero Madrid is helping to establish the idea of today's New European Bauhaus in Spain.

RESULTS

The regeneration and refurbishment of Matadero Madrid has not only meant the recovery of unique buildings and the urban spaces between the buildings, but also the **revitalisation of the neighbourhood** and a cultural and economic driving force for the whole city of Madrid.

Fig. 1. Vista aérea de Matadero Madrid.

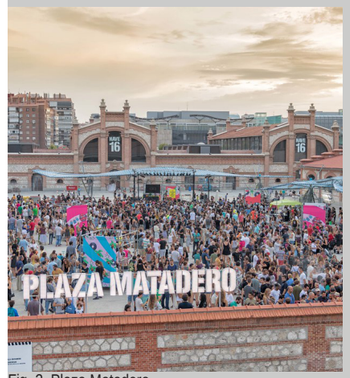


Fig. 2. Plaza Matadero.

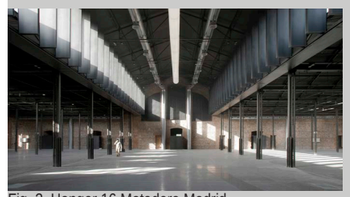


Fig. 3. Hangar 16 Matadero Madrid.

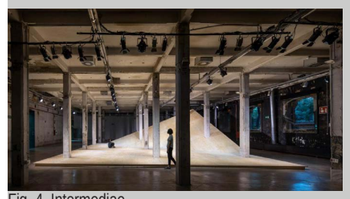


Fig. 4. Intermediae.

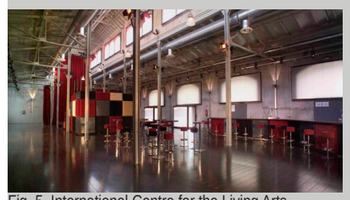


Fig. 5. International Centre for the Living Arts.

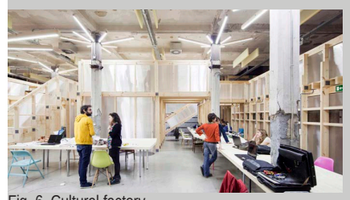


Fig. 6. Cultural factory.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.6 Improve the quality and sustainability of buildings.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.5 Promote urban regeneration.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

From the perspective of the buildings, Matadero Madrid currently has **eight spaces** dedicated to different cultural activities:

- Intermediae: a 2,700 m2 space created and prepared for open interaction and cultural dialogue.

- Matadero Naves - International Centre for the Living Arts: a 4,800 m2 space in which the performing arts, visual arts, literature, philosophy, film, music and transmedia activities are interconnected in an interdisciplinary programme.

- Factoría cultural (Cultural factory): this space is intended for use as an incubator for new companies with a floor area of 400 m2.

-Central de diseño (Design centre): this is a 1,650 m2 space dedicated to exhibiting (dissemination and promotion) projects related to graphic, industrial and interior design.

- Abierto X Obras: this 2,200 m2 exhibition area has special features, with black walls and low lighting, and is dedicated to national and international artists.

- Casa del Lector: with a floor space of about 8,000 m2, it is an international centre for research, development and innovation in the field of reading.

-Cineteca: this 2,688 m2 film library is a visual newspaper library dedicated to non-fiction cinema.

- Nave de Música: since 2012, it has hosted the Matadero's entire music programme. Its resources include a radio and recording studio, a small concert stage and nine rehearsal rooms. It has a floor space of about 4,000 m2.

-Various cultural spaces: Nave 16 is a 5,913 m2 multi-purpose exhibition space. Its versatility means that it can host presentations, major exhibitions, concerts, workshops for producing works, talks, stage performances and social activities.

The urban space is equally interesting due to its size and urban quality. The two access spaces, Plaza and Calle, located between the Matadero Madrid Naves, function as the great agora and the forum of the cultural centre, which also serves as a recreational space.

The inclusion in mid-2011 of **Madrid Río Park** makes Matadero a cultural space within a park located on the banks of the River Manzanares between the Puente de los Franceses and the Nudo Sur. In 2013, it attracted 700,000 visitors per year, 2,482 activities and nearly one million visits to its website.

PROCEDURE

In 1996, the abattoir area was **finally closed down** and the site was classified as a listed asset, as per the General Urban Development Plan of 1997.

On July 1, 2002, the specific amendment to the General Urban Development Plan was approved, which allowed the use of the abattoir to be changed to cultural and leisure activities. On June 20, 2002, the the Special Plan for intervention, architectural adaptation and urban-environmental control of uses in the area of the former municipal abattoir (El Matadero) was finally approved, keeping the protection of the structure in place, but increasing the regime of construction work. On September 26, 2005, the amendment to the Plan was approved, increasing the cultural use to 75% of the total.

The **Matadero Madrid** Contemporary Centre project was presented publicly on March 13, 2006, and was developed and built in the years that followed (2007-2015).

On July 2, 2021, following the start of the European New Bauhaus movement in 2020, the Minister of Transport, Mobility and Urban Agenda opened the presentation day in Spain of the New Bauhaus at the Casa del Lector in Matadero Madrid, where he recognised the value of architecture and its contribution to culture and history, as well as its impact on improving the quality of life in urban and rural environments.

REGULATORY FRAMEWORK

The regulatory framework in force in Madrid, which regulated the Matadero Madrid project, was as follows:

- Law 9/1995 of March 28, on Territorial, Land and Urban Policy Measures in the Autonomous Community of Madrid.
- Law16/85 on Spanish Historical Heritage.
- Special By-law on Processing Licences and Control on Town Planning.
- Specific amendment to the Madrid General Urban Development Plan of 1997.

ASSESSMENT

LESSONS LEARNED

The lessons learned from creating and setting up Matadero Madrid include the following:

First, **joint work** between the public administration, citizens through associations and the private sector.

Second, ensuring that Matadero Madrid became one of the three cornerstones of the network of metropolitan cultural centres designed for Madrid and recovering spaces for the city.

Third, interconnecting culture, social cohesion, training and research in the same urban space.

Fourth, urban recycling and regeneration for **collective use**.

GOVERNANCE AND TRANSFERABILITY

The project is an example of an intervention in the consolidated city that has regenerated and given a new use to buildings that, in themselves, represent historic heritage that deserves protection. Furthermore, their integration into the city through Madríd Río and their use as a cultural and collective space represent an **experience that can be replicated** in other spaces, both nationally and internationally.

SUSTAINABILITY

The former abattoir refurbishment project is a good example of sustainability from a social, environmental, economic and cultural perspective. It was all done in an integrated and cross-cutting manner, in line with the goals of the 2030 Agenda and the Urban Agenda.

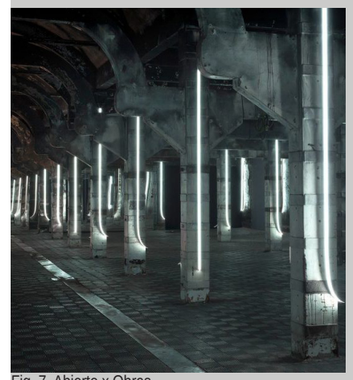


Fig. 7. Abierto x Obras.

Fig. 8. Central de diseño (Design centre).

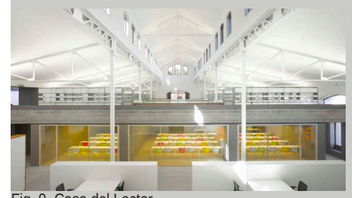


Fig. 9. Casa del Lector.

Fig. 10. Cineteca.

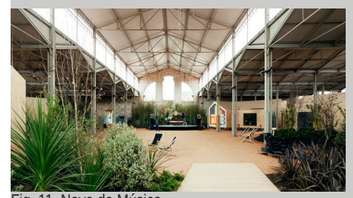


Fig. 11. Nave de Música.

CLIMATE CHANGE
AND RESILIENCE

3 STRATEGIC GOALS
PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

SPECIFIC GOALS

3.1. ADAPT THE TERRITORIAL AND URBAN MODEL TO THE EFFECTS OF CLIMATE CHANGE AND MAKE PROGRESS TOWARDS PREVENTING IT
- Climate change adaptation plan in Gavá.
- Life Baetulo Project in Badalona.

3.2. REDUCE GREENHOUSE GAS EMISSIONS.
- Alicia Climate Plan in Malaga.
- Low emissions zones in Barcelona.

3.3. IMPROVE RESILIENCE TO CLIMATE CHANGE.
- Tormes+ in Salamanca.
- Ebro Resilience in Alfaro.

SUMMARY

In 2017, Gavà Town Council signed the Covenant of Mayors for Climate and Energy, pledging to reduce greenhouse gas emissions by 40% by 2030. The same covenant encouraged signatories to draw up a **Local Climate Change Adaptation Plan**.

Gavà Town Council drew up its Local Climate Change Adaptation Plan to combat the effects of global warming in collaboration with Barcelona Metropolitan Area (BMA). The aim of this Plan is to make the municipality of Gavà more resilient to global warming. To this end, a total of 29 actions and interventions (most of them related to the urban environment) have been devised to facilitate the ten-year urban adaptation process by 2030.

The town council's commitment is, therefore, twofold. Firstly, it will attempt to take effective urban measures to help reduce the intensity of climate change. And secondly, the Plan is based on anticipating, preventing and solving the urban problems that climate change may cause in the future.

OVERVIEW

OBJECTIVES

The primary objective of the Local Climate Change Adaptation Plan is to improve and enhance the **adaptive capacity** of the various sectors in the municipality of Gavà to the future transformations that global warming may bring. To achieve this, a series of specific goals have been set that involve all of the actors that play a part in the municipality.

The aim was to compile and propose a set of measures to increase the municipality's resilience. To this end, the proposal is to reduce the exposure of the **municipality's ecosystems**, rural and urban environments based on the principles of social, environmental and economic sustainability. In terms of drafting the plan, the aim is to formulate a plan that integrates and coordinates local sectoral policies and plans to address the specific climate risks identified in the assessment process.

BACKGROUND

Despite not being very large, the municipality of Gavà has a complex, interrelated, natural urban system. This makes it a **highly vulnerable** municipality because natural, rural, urban and coastal areas are interlinked in a small space.

The Garraf Natural Park is located in the mountainous region of the municipality and, in addition to its town centre, the municipality is characterised by an extensive agricultural plain that ends in a shoreline with beaches.

One of the main dangers of this vulnerability that Gavà faces is related to climate change, like many other coastal areas in Spain. International organisations such as the IPCC (Intergovernmental Panel on Climate Change) and the IUCN (International Union for Conservation of Nature) have been warning of the consequences of climate change for decades. The gradual increase in average annual temperatures, if the forecasts hold true, could lead to problems such as a rise in average sea levels, a higher frequency of extreme weather events and climate imbalances with major episodes of droughts and floods.

DESCRIPTION

The Plan was made up of **29 interventions** that will be carried out throughout the municipality. These interventions were of a very diverse nature and were grouped into 8 large blocks: Natural environment and biodiversity (7), Hydrographic network and water (3), Civil protection and emergencies (4), Energy (1), Beaches (4), Health and social welfare (6), Agriculture (1) and Cross-cutting (3). A separate sheet has been defined for each of these actions, describing the action, the person responsible for carrying it out, the cost, the frequency and the relationship with other actions:

01. Plan for preserving and managing Gavà's natural spaces and biodiversity.
02. Local biological invasion prevention plan.
03. Adaptation of urban greenery to climate change.
04. Monitoring the wetlands in the municipality.
05. Plan for using the water system.
06. Forestry master plan for the municipality.
07. Promotion of the use of biomass.
08. Sustainable management plan for the municipality's aquifers.
09. Alternative Water Resources Plan for the municipality.
10. Programme of actions to improve water efficiency and water savings.
11. Sewerage Master Plan.
12. Implementation of **Sustainable Urban Drainage Systems (SUDs)**.
13. Increase in the cleaning frequency of drains and the sewer network.
14. Coastal flood risk management and monitoring.
15. Energy self-sufficiency plan and promotion of self-sufficiency.
16. Sewage system overflow monitoring system.
17. Preparation of technical documentation to describe the sewage system.
18. Promotion of a joint supra-municipal strategy to modify the coastline.
19. Definition of solutions for artificially replenishing Gavà beach.
20. Increase in surveillance and numbers of lifeguards on the beaches.
21. Public awareness-raising campaigns on heatwaves.
22. Preparation of an action protocol for the risk of heat stress.
23. Study on the heat island effect in the municipality.
24. Monitoring of facilities that are susceptible to salmonella and Legionella outbreaks.
25. Action if pests are detected and campaigns to prevent them.
26. Convention to analyse the impact of climate change on agricultural activity.
27. Consolidated Municipal Civil Protection Document for all risks in the municipality.
28. **Urban Resilience Action Plan for Gavà**.
29. Incorporation of climate change adaptation into planning.

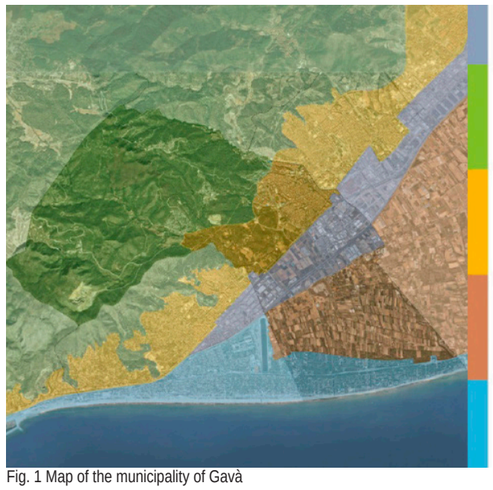


Fig. 1 Map of the municipality of Gavà

GAVÀ, NATURAL MENT

Ajuntament de Gavà

DATA

LOCATION
Gavà, Catalonia.

ACTORS
· Gavá Town Council.
· Barcelona Metropolitan Area.

DATES
· 2017: Covenant of Mayors signed.
· 2020: Local Climate Change Adaptation Plan approved.
· 2021: Planned proposals implemented.

AREA OF ACTION
Municipality of Gavà (30,7 km^2).

SOURCES
Gavá Town Council:
https://www.gavaciutat.cat/es/portada

PHASE
In the process of implementation.

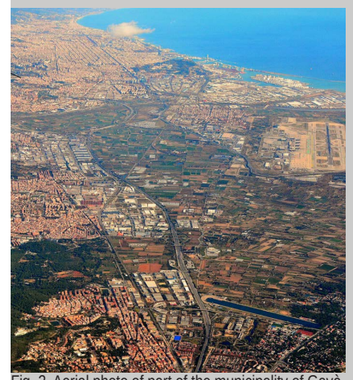


Fig. 2. Aerial photo of part of the municipality of Gavà.

Fig. 3. Photograph of the mountainous region of the municipality of Gavà.

Fig. 4. Orthophoto of the municipality of Gavà.

Fig. 5. Map showing land uses in the municipality of Gavà.

Fig. 6. Photograph of the Gavà town centre.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

RESULTS

Pending analysis of the results of the 29 programmed interventions, the Plan has made it possible to develop a useful methodology for determining the **municipality's vulnerability** to climate change.

PROCEDURE

In 2009, Gavà Town Council signed the Covenant of Mayors for Climate and Energy, a commitment at a European level that involved citizens and other local authorities in the fight against climate change, with the aim of reducing greenhouse gas emissions by 20% and increasing the production of renewable energies by 20% by 2020.

In 2017, the new Covenant of Mayors for Climate and Energy was signed, renewing commitments and proposing new measures.

It set itself the challenge of reducing greenhouse gas emissions by 40% by 2030 and, through the Sustainable Energy and Climate Action Plan, encouraged signatories to draw up a **Local Climate Change Adaptation Plan**.

In 2020, Gavà Town Council approved the Local Climate Change Adaptation Plan 2020-2030.

A document summarising the process carried out was drawn up to obtain the 29 interventions included in the Plan. The first phase of the Plan consisted of an in-depth assessment of the municipality.

This analysis characterised each region in terms of the environment, climate, economy, society, mobility, infrastructure, etc. This phase concluded with a number of priority areas of action.

The assessment was used to identify and **evaluate the risks** in the municipality.

Depending on the type of threat and the possibility of adapting to it, 36 potential risks of different magnitudes were identified. They were classified into 4 risks: risks requiring priority action (16), risks requiring follow-up and monitoring actions (3), risks requiring management maintenance actions (10), low impact risks that do not require immediate action (7).

Following the evaluation, the 29 actions were finalised as concrete proposals. These actions, which are currently in the **execution phase**, range from a plan for using the water system, to implementing a sustainable urban drainage system and monitoring the risk of coastal flooding.

The measures proposed also include promoting the use of biomass, improving water savings and efficiency, and promoting a joint strategy to tackle the modification of the coastline.

REGULATORY FRAMEWORK

The regulatory framework used for drawing up the Local Climate Change Adaptation Plan 2020-2030 was the Sustainable Energy Action Plan, which is part of the Covenant of Mayors initiative.

ASSESSMENT

LESSONS LEARNED

The main lesson learned from this urban practice is the need for municipalities to commit themselves to moving towards an urban future adapted to the threats of the 21st century. The important role of the administration as a **driver of change** towards new urban trends and economic models should not be forgotten.

In addition, another lesson learned from this Local Climate Change Adaptation Plan is the value of a **sound and serious analysis and assessment** of the municipality. Although the media focus is usually on concrete proposals, these will be much more successful if they are backed up by serious analysis beforehand.

GOVERNANCE AND TRANSFERABILITY

This good practice was a further step in the municipality of Gavà's commitment to taking on climate change. By 2010, it already had a Sustainable Energy Action Plan (SEAP) in place, in which it set out how it would work towards reducing its carbon footprint.

The approval of the Adaptation Plan reinforced this commitment, which also resulted in the creation of a specific area within the municipal organisation chart dedicated to **ecological transition.** In fact, in addition to the Climate Change Adaptation Plan, the town council had other lines of action such as improving waste management, transitioning towards a municipal circular economy model and combating beach erosion and regression.

This plan was framed within the strategy that Gavà Town Council itself promoted in 2018, a new sustainability agenda for Gavà.

This good practice was designed in conjunction with a range of mutually supportive schemes and initiatives. These included a new waste and recycling model and actions on public areas through programmes such as "Juntos fem Barri".

To this we can add a new educational project in the city and the project in the Garraf Natural Park, BGN: Barcelona Gavà Natura, an initiative that supports the environmental actions that have been carried out in recent years, some of them recent, such as the restoration of the paths and trails leading to Eramprunyà Castle.

SUSTAINABILITY

This local plan helps to make the municipality of Gavà less vulnerable to the effects of climate change.

In the quest to find urban measures that will help adapt to an increasingly uncertain climate, many of the solutions lie in finding **more sustainable urban models**.

What is interesting, in terms of sustainability, is that this action is attempting to respond to the global phenomenon of climate change through a local response. What is even more significant is that the actions carried out to ensure that the consequences of climate change do not damage the quality of life in the municipality of Gavà make it a more sustainable municipality. This action has led the future of Gavà towards a new urban model that is better adapted to the future.

Fig. 7. Map of the municipality of Gavà.


Fig. 8. Photograph of part of Gavà beach.


Fig. 9. Farmers in the fields of Gavà.


Fig. 10. Tourist accommodation in Gavà.


Fig. 11. Photograph of one of the entrances to Gavà beach.

DATA

LOCATION
Badalona, Barcelona.

ACTORS
· AB (AIGÜES DE BARCELONA, Empresa Metropolitana de Gestió del Cicle Integral del Aigua, S.A.), Spain.
· Badalona City Council.
· Barcelona Metropolitan Area (BMA).
· AQUATEC (Suez España).

DATES
· July 1, 2020: first project coordination meeting.
·April 19, 2021: presentation of the project at the third international ADAPTtoCLIMATE conference.

AREA OF ACTION
Municipality of Badalona.

SOURCES
Life Baetulo Project:
https://life-baetulo.eu/the-project/

PHASE
In the implementation phase

SUMMARY

The aim of the LIFE Baetulo project, which was launched in July 2020, is to provide an **innovative integrated**, multi-risk early warning system, which can be applied to and used by any city or region with climate risks and predict the adverse effects of climate change, including forecasting and warning of all climate hazards that affect urban areas.

As a result, it will be possible to avoid situations that could endanger the health or property of citizens and the environment. It will also make it possible to intervene with greater certainty based on the data obtained and to ensure that the actions carried out are aimed at mitigating the consequences of the most extraordinary natural events.

It is a pilot project **funded by the European Union** as part of the LIFE 2019 call for proposals, and promoted by the Aquatec Consortium, Badalona City Council, Barcelona Metropolitan Area and Aigües de Barcelona, which is aimed at promoting measures to adapt to climate change in urban areas.

The beneficiary partners are the Catalan Office for Climate Change, Barcelona Provincial Council and the Catalan Water Agency.

OVERVIEW

OBJECTIVES

The main objective of LIFE Baetulo is to implement and evaluate the effectiveness of an **Integrated Early Warning System** (IEWS) to adapt urban areas to the multiple hazards and risks arising from climate change.

The specific objectives can be summarised as follows:

- Contribute to urban adaptation by offering an innovative technological solution aimed at reducing exposure and vulnerability and increasing preparedness to climate hazards.

- Implement the results of the research, obtained in the previous BINGO H2020 project, in real conditions in the city of Badalona and carry it forward.

- Contribute to climate adaptation policies and strategies by putting adaptation into practice through a demonstration case study.

- Demonstrate the effectiveness of an IEWS as a non-structural adaptation measure, which enhances the adaptive capacity of citizens, administrations, policy makers and companies, through awareness raising and capacity building.

- Provide appropriate protocols for integrating and fostering cooperation between different actors, sectors and levels in the event of climate hazards.

- Assess the social, economic and environmental benefits of the LIFE BAETULO solution and develop a business plan.

- Disseminate the benefits of the project solution and promote its replicability to maximise its impact.

The project will also provide tools to implement the EU Strategy on **Adaptation to Climate Change** and contribute to the political priority of the EU on climate governance and information.

BACKGROUND

Climate change is a reality. Cities are already facing, and are expected to face more and more frequently, different **impacts** of climate change such as floods, heat waves and storm surges, among others, which not only cause significant economic and human losses, but also pose challenges to urban life with high costs for society and the economy.

Climate projections show a 15% increase in rainfall intensity in the coming years, associated with a high risk of flooding in Badalona with significant repercussions on the population (pedestrian traffic, accidents, etc.), urban infrastructures (material damage, impact on supplies, etc.) and the environment (pollution of the marine environment, etc.). Various measures have been taken to increase Badalona's capacity to recover from urban flooding and related problems, including the LIFE BAETULO project initiative.

DESCRIPTION

The project consists of implementing a number of sensors and other advanced equipment that will **provide this system with real-time information** to monitor episodes of climatic danger, such as those that make it possible to detect and quantify discharges in rainy weather, level sensors to measure the level of water in the streets in flooding episodes, cameras to monitor storms at sea and weather stations to monitor temperature, wind and rain, among others.

The integrated warning system of the LIFE Baetulo initiative **anticipates** and monitors climate hazard events, assesses the resulting risks, and automates and activates the different preventive or reactive protocols required before, during and after possible floods, sewage system discharges, heat waves, maritime storms, gales, cold snaps, episodes of atmospheric pollution and snowfall. It also issues warnings to both local risk managers and the public to reduce exposure to these climate hazards, thereby reducing the resulting impacts.

A mobile application is also being developed so that citizens can use the alert system free of charge and receive notifications and protocols for action, thereby avoiding situations that could put their health or property at risk. At the end of the initiative, the aim is to have a climate **risk management tool available** and ready to be implemented in other European cities.

Fig. 1. LIFE Baetulo will test a comprehensive primary warning system as a climate change resilience measure in Badalona.

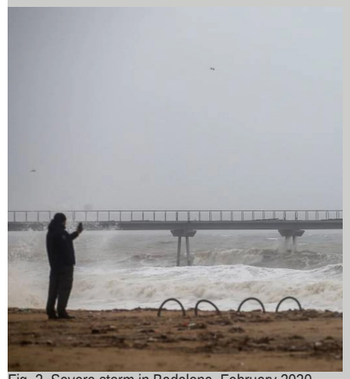


Fig. 2. Severe storm in Badalona. February 2020.

Fig. 3. Waterspout and lightning in the sea off Badalona as seen from Barcelona. November 2021.

Fig. 4. Flood in Badalona. July 2018.

Fig. 5. Heat wave in Badalona. August 2021.

Fig. 6. Fallen trees due to high winds in Badalona. December 2014.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.3 Improve resilience to climate change.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues.

The LIFE Baetulo Integrated Early Warning System consists of 4 main blocks:

- The acquisition of data to identify and predict hazardous weather events.

- **Risk assessment** to help estimate potential risks such as water velocity levels in the streets due to flooding events, approximate duration of episodes of bathing water pollution, vulnerable areas of the city to wind or sea storms, population vulnerable to heat waves, etc.

- Preparedness and response resulting from the activation and automation of emergency protocols (preventive and reactive), defined for each weather risk based on alert levels.

- The communication and dissemination of adequate, reliable and understandable warning messages to the relevant authorities and the public at risk in order to reduce the potential impacts of such climate hazards. The interactions of users with the elements in the city that provide information and understanding of how municipal facilities work were studied. In these cases, special attention was paid to signage and the demarcation of streets, squares, buildings, websites, tourism and general municipal signs.

RESULTS

It is not yet possible to ascertain the results but it is expected to provide tools to implement the EU Strategy on Adaptation to Climate Change and to contribute to the EU's political priority on climate governance and information.

PROCEDURE

The LIFE BAETULO project started on July 1, 2020 with the first project coordination meeting, attended by representatives of the **4 partners**, namely Aquatec, as coordinator, Badalona City Council, Barcelona Metropolitan Area and Aigües de Barcelona.

On November 9, 2020, the LIFE BAETULO project held the first workshop with stakeholders in the project, the Catalan Water Agency, Barcelona Provincial Council and the Catalan Office for Climate Change. There were **14 participants** and the project partners and stakeholders discussed different technical aspects such as the structure and functionality of the Integrated Early Warning System, the sources of data available for identifying and anticipating extreme weather events and the type of information and means of communication to be used by the warning system to inform citizens about these climate hazards. Finally, the role of stakeholders in disseminating the project was also discussed.

The first meeting of the Advisory Board of the LIFE Baetulo project was held on February 16, 2021. The purpose of this meeting was to present and discuss relevant aspects of the project's progress in order to receive feedback and advice.

On April 19, 2021, the project was presented at at the third international ADAPTtoCLIMATE conference.

REGULATORY FRAMEWORK

The regulatory framework for drafting this project is as follows:

- Regulation (EU) 1293/2013 of the European Parliament and of the Council of December 11, 2013 on establishing a Programme for Environment and Climate Action (LIFE), which repealed Regulation (EC) 614/2007.

- Multi-Annual Work Programme for the period 2018-2020.

- Multi-Annual Work Programme for the period 2014-2017.

ASSESSMENT

LESSONS LEARNED

Among the possible lessons learned was the wisdom of holding a global exhibition with **highly experienced** people to discuss and compare knowledge on water conservation.

It is also worth noting the importance of securing sponsors for the project. As this particular project was driven by a Social Organisation, it provided an impetus for seeking other ways of obtaining financial and social support.

More generally, there was also a need for proper **international co-ordination**. In this case between, this came from the European Commission, the General State Administration and Badalona City Council, i.e. between a variety of key actors at a national, regional and local level.

GOVERNANCE AND TRANSFERABILITY

The LIFE Baetulo project was part of the European Union's **LIFE programme**, which is the European Union's only financial instrument dedicated exclusively to the environment and climate action.

As it was part of this programme, which is well known in Europe, the transferability of the project is much greater, as it can reach many more people and, due to the very nature of the tool, it is intended to be implemented in other territories.

The main resources came from the LIFE call for proposals, which provided the opportunity to carry out the LIFE Baetulo project (and providing it with substantial funding to carry it out).

SUSTAINABILITY

Sustainability in this project is mainly environmental and social, but also has an important economic component.

Protecting citizens from the risks posed by the effects of climate change, especially the most vulnerable, through precaution and data management can be vital and, at the same time, prevent material damage. Anticipating a natural disaster event ensures the safety of people and protects property.

In the majority of cases, **this avoids having to make excessive necessary investments** once the extraordinary, unexpected event or episode has taken place.

As far as environmental sustainability is concerned, the aim is to gain a better understanding of local trends through data management and thus ensure greater certainty when it comes to taking action and proposing interventions at an urban, economic and social level. Consequently, the city's development is based on proven information, which also helps to ensure the feasibility of the different actions and how they are monitored.

Fig. 7. Storm Gloria in Badalona. January 2020.

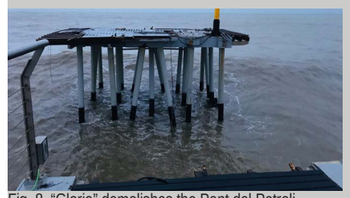


Fig. 8. "Gloria" demolishes the Pont del Petroli.

Fig. 9. "Gloria" destroys the seafront promenade in Badalona

Fig. 10. Property damage after the tornado. November 2021.

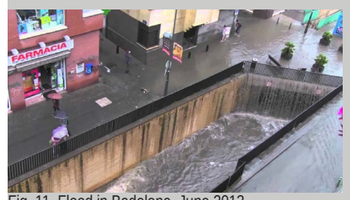


Fig. 11. Flood in Badalona. June 2013.

DATA

LOCATION
Málaga, Andalusia.

ACTORS
· Malaga City Council.
· Urban Environment Observatory (UEO).
· University of Malaga.
· Municipal Housing Institute (IMV Spanish acronym).
· Department of Social Rights, Department of the Environment, Town Planning Department.
· Andalusian Regional Government.
· Tourist board.
· EMT: Empresa Malagueña de Transportes.

DATES
· 2008: The European Commission launched the Covenant of Mayors.
· March-2015: Urban Agenda 2015. Urban Agenda in the integrated sustainability strategy 2020-2050.
· October 15, 2015: The European Commission formulated the new Covenant of Mayors (merging Covenant of Mayors 2008 and Mayors Adapt).
· October 31, 2019: the resolution on the climate and ecological emergency was approved.
· July 11, 2020: the Climate Plan 2050 was approved.

AREA OF ACTION
Municipality of Malaga (398 km²).

SOURCES
Malaga Urban Agenda:
https://www.omau-malaga.com/agendaurbana/pagina.asp?cod=61

PHASE
In the implementation phase

SUMMARY

The Malaga Climate Plan, called Alicia or Climate Plan 2050, was approved by the Governing Board and the Municipal Plenary of the City Council in July 2020 and is configured as “an umbrella for strategic initiatives on energy, the circular economy, sustainable mobility, food system, biodiversity, air and water quality, etc.”.

Its main objective is to achieve **carbon neutrality** by 2050, as agreed by some European cities and as the European Commission is changing its forecasts for 2030 (instead of reducing emissions by 40%, to reach 55%, and carbon neutrality by 2050), which for Malaga means going from more than 3 million tonnes of CO2 in 2017 to approximately 250,000 tonnes in 2050, which means an average annual reduction of 7% over the next 30 years.

The Climate Plan is directly related to the Malaga Urban Agenda 2015 (linked to the UN’s New Urban Agenda) and the Covenant of Mayors. Like the Urban Agenda, the Climate Plan is a **dynamic document**, not a closed one.

OVERVIEW

OBJECTIVES

The primary objective is carbon neutrality by 2050. In order to achieve this, different monitoring will be carried out in **three phases**:

- Short-term objective (2020): the objective largely responds to the actions included in the Sustainable Energy Action Plans (SEAPs), the implementation of which will reduce emissions by nearly 20% compared to 2008 in the transport, waste, residential and services sectors. This reduction should lead to a total generation of 1,322,000 tonnes of CO_2.

- Medium-term objective (2030): phasing out the use of fossil fuels and reducing the amount of waste going to landfill. By projecting the greenhouse gas (GHG) emissions of the municipality of Malaga in the medium term, in 2030, and applying an annual emission reduction rate of 4.6% up to 2030. This would reduce emissions by around 1,330,000 tonnes of CO_2.

- Long-term objective (2050): there is a common vision for 2050 that focuses on the gradual decarbonisation of the territory of Malaga. Likewise, Malaga’s new urban agenda recognises 2050 as a strategic future in which it is committed to achieving carbon neutrality. This neutrality is estimated for Malaga by 2050 at 207,000 tonnes of CO2.

The following actions have also been set out:

- **Green belt**: this action was carried out in the boundary area between “urban land and land not for development”, which is also the meeting point for the 15 green corridors defined in the Urban Agenda The Green Belt will act as a climate refuge close to the city from the threat of heat waves, droughts and floods.

- Project Rebecca. La Araña: work on restoring biodiversity in the area of Peñón del Cuervo. It involves recovering habitats and conserving terrestrial biodiversity, mitigating climate change, improving the public’s knowledge of local terrestrial and marine biodiversity and native species, and transferring knowledge to public managers, researchers, businesses and the public for decision-making.

- Malaga Central Low Emission Zone: the aim is to reduce the number of motor vehicles, improve health levels and lower noise levels by reducing the number of vehicles passing through the area

- **Superblocks**: the Jardín de la Abadía project is aimed at replacing the traditional city block with a group of blocks which are about 400 to 500 metres long and redirecting road traffic to the perimeter of these blocks. In this way, the inner roads would form a local network with a speed limit of 10 km/h, freeing up much of the space currently taken up by through traffic for walking and cycling.

- Lifewatch ERIC and Lifewatch ALBORAN: adaptation of several municipal spaces as Lifewatch technology exhibition and demonstration sites on urban, terrestrial and marine biodiversity.

- **n´UNDO VACÍOS Plan #Málaga**: the n´UNDO de Vacíos Plan for Málaga focuses on studying the Teatinos, Puerto de la Torre and Campanillas areas. It is an initial analysis of the problem of urban sprawl in Malaga through a study of its empty spaces based on n’UNDO criteria, understanding the strategic importance of non-built areas, and outlining lines of intervention.

BACKGROUND

In terms of the overall energy consumption in Malaga, the change during the period 2002-2017 represented an increase of 39% in electricity consumption, 6% in hydrocarbon consumption, 25% in natural gas consumption, and a 52% reduction in LPG consumption. The sectors that contribute most to greenhouse gas emissions are those with the highest energy consumption: private and commercial transport, as well as industrial activities and power generation. Consequently, emissions in the city of Malaga in 2017 were 46.9% higher than in 2002.

DESCRIPTION

It is structured in **four main documents** and a number of information annexes.

- A0 Synopsis of the Alicia Climate Plan.

- A1 Energy consumption and CO_2 emissions in Malaga 2002-2017. It analyses consumption over the 16 years studied by the different energy types.

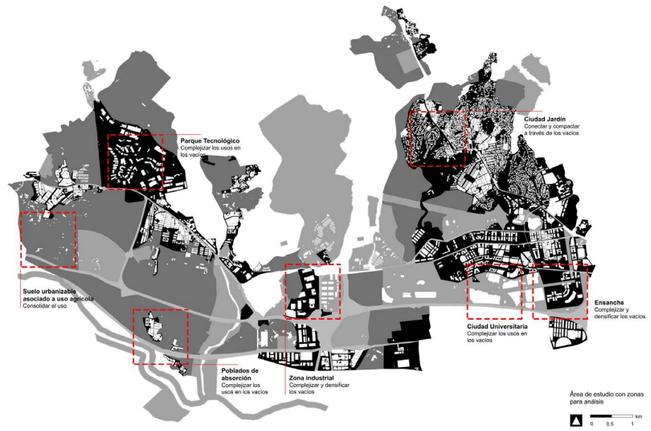


Fig. 1 Overview of the n´UNDO VACÍOS Plan #Málaga study area.

Fig. 2. Image of ‘Alicia’ (Alice in Wonderland), which inspired the aims of the Plan.

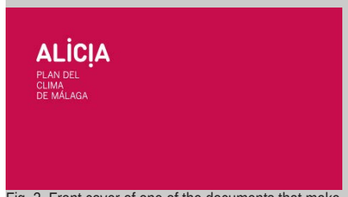


Fig. 3. Front cover of one of the documents that make up the Alicia Plan.

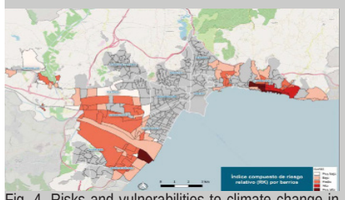


Fig. 4. Risks and vulnerabilities to climate change in the city of Malaga.

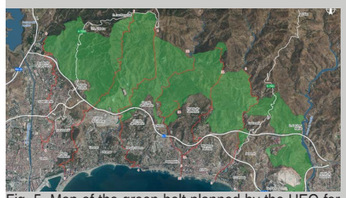


Fig. 5. Map of the green belt planned by the UEO for the eastern area of Malaga.

Fig. 6. MÁLAGA-LifeWatch-ERIC. European Science, Technology and Innovation Forum

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.3 Improve resilience to climate change.

SG1 PLAN LAND USE AND USE LAND **RATIONALLY, CONSERVE IT AND PROTECT IT**

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

- A2 Methodology and preparation of CO_2 emission scenarios in Malaga 2017- 2050. It analyses the different proposals made by the Covenant of Mayors and the Urban Agenda as reference frameworks for reducing greenhouse gases and sets out new scenarios for 2020, 2030 and 2050 with the total CO_2 emissions estimated by Alicia, producing projections based on variables such as population growth, economic activity and the number of vehicles.

- A3 Assessment of risks and vulnerabilities to climate change in Malaga. It analyses climate vulnerability and risk quantitatively by sector, and territorially by neighbourhood, with special attention paid to the impact of extreme temperatures and heat waves, river and sea flooding on the built urban environment.

- A4 Strategic lines of mitigation and adaptation. It includes 40 strategic lines and 98 concrete actions in each section of the Climate Plan: urban model and mobility (11 lines and 35 actions), urban metabolism (14 lines and 29 actions), biodiversity (6 lines and 15 actions), and social cohesion and governance (8 lines and 19 actions).

The Alicia Plan aims to achieve carbon neutrality by 2050, which would require an annual reduction of 7% over the next 30 years. To this end, 10 +1 actions are proposed in the 2050 Climate Plan for Malaga.

1. Committed, responsible city: encouraging companies and businesses to commit to using renewable and sustainable energy and resources.

2. Green city: developing a **green city** of 135 m^2/inhabitant of urban nature, recreation and CO_2 sink, structured around 15 green corridors and a system of urban, forest and local parks connected by a green belt that defines urban and rural land.

3. Mediterranean city: promoting the classic Mediterranean city with significant levels of urban density, complexity of activities and proximity.

4. Smoke-free / friendly / rolling city: a **new mobility model** based on public transport, a strong network of cycle paths, substantially expanded pedestrian space and private electric vehicles.

5. Low-emission city: eliminating dependence on private vehicles and the effects of the call to the city centre.

6. Renewable energy city: promoting renewable energies, a basic need to make up for the current dependence on carbon. New building projects will only have to obtain a building permit if they are energy class A.

7. Mediating city: managing emission control protocols with large generators of CO_2.

8. Biodiverse city: a fundamental aspect of the Climate Plan is the conservation and restoration of coastal, marine, coastal dune and river biodiversity.

9. Resilient/adapted city: implementing climate risk protocols for rising temperatures, heat waves and sea and river flooding.

10. City promoting the circular economy: **public policies** promoting the circular economy as a normal working standard in economic activity.

11. Healthy city: CO_2 emissions are linked to health risk factors (WHO) such as the various pollutant gases produced by carbon dioxide combustion that cause respiratory diseases, allergies, lung cancer, heart disease, or that have a negative impact on mood and human psychology or unhealthy lifestyles.

PROCEDURE

Following the adoption of the EU climate and energy package up to 2020 in 2008, the European Commission issued the new joint Covenant of Mayors for Climate and Energy (merging the Covenant of Mayors 2008 and Mayors Adapt) at a ceremony held on October 15, 2015 at the headquarters of the European Parliament in Brussels.

In July 2016, the Urban Environment Observatory (UEO) identified the need to contract a “service for drawing up the list of actions to be included in the technical specifications for contracting out the implementation of the Malaga 2030 Energy Action and Climate Change Mitigation Plan”. On October 31, 2019, the Municipal Plenary of Malaga unanimously approved the **resolution on the climate and ecological emergency.** The Governing Board of Malaga City Council approved the Climate Plan 2050, called Alicia, on July 11 2020. The documents that made up the Climate Plan began to be drafted in December 2018 and were directly associated with the Malaga Urban Agenda 2015 and the Covenant of Mayors.

REGULATORY FRAMEWORK

The Urban Agenda was primarily set as a framework for the integrated sustainability strategy 2020-2050. Malaga 2015.

ASSESSMENT

LESSONS LEARNED

Malaga wants to become a city that continues to be committed to the strategic planning of its development, which will allow it to grow under the model of an **inclusive, safe, resilient and sustainable** city. Now more than ever, we are moving forward with a capacity for adaptation based on solidarity, with our sights set on achieving the 2030 objectives around four fundamental pillars, which help to promote Malaga as a city of culture, knowledge and innovation, a city of coastline and sustainability, and a city that is inclusive and integrated.

GOVERNANCE AND TRANSFERABILITY

Various citizen participation workshops were held in November 2019 and February 2020, grouped under the four headings of the Climate Plan. Accordingly, the 2050 Forum is a working group made up of citizens, public and private entities and the local administration, through which a participatory process has been set up to work together on developing the sustainability strategy for Malaga with the aim of providing a participatory and cross-cutting perspective.

SUSTAINABILITY

The idea of sustainability is considered to be the search for harmonious urban development focused on the quality of life of its citizens. In this way, the concept of sustainability will lead to an improvement in the landscape and aesthetic quality of urban routes around the city. The adoption of the Plan is aimed at implementing a **set of collective behaviours** towards the urban environment, which have come to constitute ways of life, customs and knowledge that are commonplace in our time.

Fig. 7. Pedregalejo area, one of the areas most affected by climate change.

Fig. 8. One of the noteworthy actions in the Alicia Plan, related to reducing emissions.

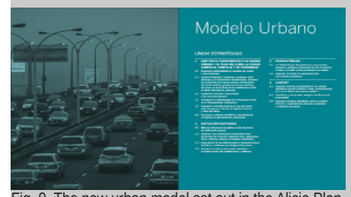


Fig. 9. The new urban model set out in the Alicia Plan.

Fig. 10. Some of the strategies envisaged in the Alicia Plan on biodiversity.

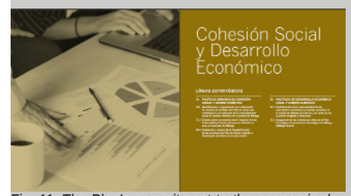


Fig. 11. The Plan’s commitment to the economic development of the city.

DATA

LOCATION
Barcelona Metropolitan Area, Catalonia.

ACTORS
· Barcelona Metropolitan Area.
· Barcelona City Council.
· FEMP- Spanish Federation of Municipalities and Provinces.
· Catalonia Regional Government.

DATES
· 2007-2017: various by-laws and plans on air quality were approved..
· 2020: entry into force of the Low Emission Zones in Barcelona.

AREA OF ACTION
95 km^2 of the Barcelona Metropolitan Area.

SOURCES
Barcelona Metropolitan Area. LEZ:
https://www.zbe.barcelona/es/index.html

PHASE
In the process of implementation.

SUMMARY

In line with other European metropolises, it was decided to start the Low Emission Zone (LEZ) initiative on the ring roads of Barcelona. This initiative was promoted by Barcelona Metropolitan Area, Barcelona City Council and the Government of Catalonia, in collaboration with the Spanish Federation of Municipalities and Provinces (FEMP by its Spanish acronym), and it came into force on January 1, 2020.

The initiative covers 95 km2 of the BMA and, in general terms, consists of the public administration determining a delimited area that **progressively restricts** vehicle access, traffic flow and parking in order to improve air quality and reduce greenhouse gas emissions.

As a result, the objective of **reducing** CO_2 emissions and vehicle use in the Barcelona Metropolitan Area is being achieved. Moreover, this initiative has achieved the greatest reach of all those in southern Europe, making the LEZ in Barcelona a reference model for many other cities.

OVERVIEW

OBJECTIVES

The main objectives of the low emission zones initiative are to safeguard **air quality and public health** and to reduce greenhouse gas emissions in the area where it is implemented by restricting access for the most polluting vehicles.

To this end, these LEZs aim to achieve a reduction in the use of private vehicles and to reform public spaces to move towards more sustainable, safer, and cleaner mobility. Consequently, in addition to restricting the most polluting vehicles, other complementary measures need to be introduced, such as improving the public transport network, implementing lanes reserved for surface public transport, increasing the number of cycle paths, limiting on-street parking, regulating and charging for parking, actions aimed at reducing the speed of traffic and sustainable management of urban goods distribution.

This will make it possible to promote healthy, fair, sustainable mobility in areas such as city centres, sensitive areas and points of concentration of vulnerable populations, by reducing greenhouse gas emissions, and improving the urban environment and resilience against climate change.

BACKGROUND

The municipalities that make up the Barcelona Metropolitan Area have pollution levels that **exceed the maximum thresholds** for NO_2 and PM10 pollution set by the EU and the World Health Organisation and constitute a major threat in terms of public health.

The latest report on air quality in Catalonia in 2018 indicates that the legal pollution levels of NO_2 (Directive 2008/50/EC) of May 21 of the European Union on ambient air quality and cleaner air for Europe) and PM recommended by the WHO were once again exceeded.

Exceeding the established pollution thresholds has direct effects on people's health that the scientific community has been able to quantify with more than 3,000 premature deaths per year in the metropolitan area. And it was found that the impact of transport and mobility on air pollution is more than 50% in the area of the special protection zone but rises to 70 or 80% in the densest areas of the Barcelona conurbation.

In this context and in line with other European metropolises, it was decided to start with this initiative for a low emission zone (LEZ) on Barcelona's ring roads.

DESCRIPTION

A low emission zone (LEZ) is a geographically delimited area intended to discourage or restrict the access of certain polluting vehicles (cars, lorries, motorbikes) in order to reduce air pollution.

In some cases, only zero-emission vehicles (such as pure electric vehicles) or low-emission vehicles (such as regular hybrids or plug-in hybrids) are allowed.

The main tool for managing these low emission zones is the classification of vehicles into different **categories** (with their associated environmental badge), taking into account their NOx and PM2.5 emissions.

Those classified as polluting are restricted from entering the LEZ, while those classified as non-polluting (i.e. with one of the 4 DGT environmental badges) may do so as per the regulations.

In this case, the delimited area where access to certain vehicles is restricted is the Barcelona Ring Roads LEZ - an area of more than 95 km2 - which includes the area of Barcelona between the Ronda de Dalt and the Ronda del Litoral ring roads, and all or part of the municipalities of L'Hospitalet de Llobregat, Cornellà de Llobregat, Esplugues de Llobregat and Sant Adrià de Besòs.

This initiative, which came into force on January 1, 2020, bans the **most polluting** vehicles on weekdays from 7:00 am to 8:00 pm.

The restrictions affect all vehicles that do not have the environmental sticker from the Directorate General of Traffic (DGT), which certifies that they are roadworthy.

From 2020, Barcelona has been incorporating a **computerised system** to monitor the number plates of vehicles authorised to circulate within the low emission zone by radar.

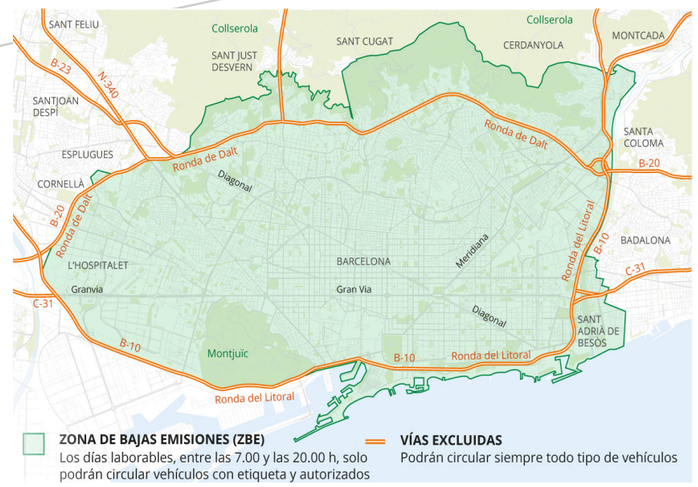


Fig. 1. Map of the activated region.

Fig. 2. Signposting of Low Emission Zones in the Barcelona Metropolitan Area.

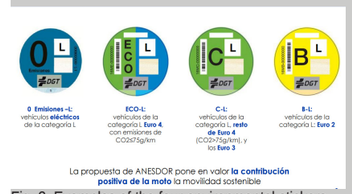


Fig. 3. Examples of the four environmental stickers.

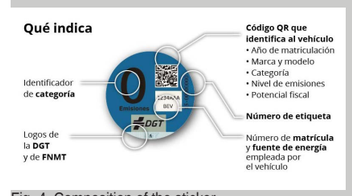


Fig. 4. Composition of the sticker.

Fig. 5. How the restricted vehicle check operates.

Fig. 6. Prototype of surveillance cameras.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.3 Improve resilience to climate change.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

RESULTS

Since the project started on January 1, 2020, the number of vehicles on the road without an environmental sticker is said to have fallen by more than 50%. In other words, the proportion of vehicles driving without an **environmental sticker** in this area went from 20% when it was announced in 2017, to 9-10% in the first half of 2020, and 2-2.5% today.

As a result, pollution and greenhouse gas emissions have also been reduced, thereby improving the urban environment.

As far as vehicles with an environmental sticker are concerned, there is a tendency to buy vehicles that emit **lower emissions**. In 2017, 43% of the vehicles on the road in Barcelona had the B sticker, which represents the highest emissions of the different stickers issued by the DGT. The percentage is now around 27%, representing a total of 265,000 journeys.

Meanwhile, the Barcelona Ring Roads low emission zones have contributed to the vehicle fleet being renewed. In the last year, the number of polluting vehicles scrapped increased, and the number of vehicles without an environmental sticker fell by 80,000.

PROCEDURE

After detecting the **high level of pollution** in the Barcelona Metropolitan Area, it was decided to implement the low emission zones initiative in these areas.

Consequently, in May 2006, the Regional Government of Catalonia declared Barcelona to be a special protection area for the atmospheric environment. An action plan to improve air quality 2007-2010 was laid down (Decree 152/2007 of July 10), and remained in force until 2014, when the action plan to improve air quality in atmospheric protection areas was approved (Government Agreement GOV/127/2014). At the same time, Directive 2008/50/EC of the European Parliament and of the Council of May 21, on ambient air quality and cleaner air for Europe, was approved in 2008. Likewise, the National Air Quality and Atmosphere Protection Plan 2013-2016 was approved by the Council of Ministers on April 12, 2013: Air Plan.

In 2017, traffic restriction measures for the most polluting vehicles were approved by Mayoral Decree S1/D/2017-3425 of November 9, with the aim of minimising their effects on the health of citizens and restoring normal levels of air quality.

In 2019, the need to implement restrictions on a permanent basis, over and above one-off episodes, was assessed in the light of the technical studies carried out on air pollution in Barcelona. Consequently, at an extraordinary session on October 9, 2019, the by-law on restricting certain vehicles in Barcelona aimed at preserving and improving air quality was provisionally approved, and a period of public consultation was opened to hear objections to the proposal.

On December 19, 2019, at the end of the public consultation period and after answering any objections made, the Plenary of Barcelona City Council **finally approved** the by-law.

During the pandemic, the fines regime was suspended and only resumed several months after lockdown, more specifically on September 15, 2020. Now that the project is well advanced, as the years have gone by, more categories of vehicles are expected to be included in the permanent traffic ban within the Barcelona Ring Roads LEZ.

REGULATORY FRAMEWORK

The following is a breakdown of the regulatory framework that was used to implement this good practice:

- Law 9/2003 of June 13, on mobility.
- Ley 34/2007, of November 15, on Air Quality and Atmospheric Protection
- Directive/50/EC of the European Parliament and of the Council of May 21, on ambient air quality and cleaner air for Europe.
- Directive 2009/33/EC on promoting clean, energy efficient road transport vehicles.
- AIR Plan. National Plan on Air Quality and Atmospheric Protecti
- Metropolitan Urban Mobility Plan 2019-2024.

ASSESSMENT

LESSONS LEARNED

The first lesson learned is that cities can be transformed and become sustainable, inclusive, innovative and friendly in a short period of time, with citizen participation and clear, well-defined objectives. The second is that any city or municipality needs to **define its own model** and solutions adapted to its own characteristics in order to achieve the same objectives. The third lesson learned is that public participation is of great importance in decision-making, and that this participatory process makes it possible to get closer to the population and hear different points of view. The fourth lesson is that, as far as managing the initiative is concerned, it is important to have an efficient organisation and a team that is motivated and committed to the objectives set.

GOVERNANCE AND TRANSFERABILITY

More than two hundred European cities in ten different countries, including London, Berlin, Paris and others, have been implementing low-emission zones with restrictions on the most polluting vehicles for years to preserve the health of their inhabitants. However, the implementation of low emission zones in Barcelona is the most far-reaching in southern Europe. This means that it is currently a **reference model** for many cities that share the same desire to improve air quality, i.e. the model applied in Barcelona has been a source of inspiration for other cities around the world, giving it the added value of transferability.

To this end, the Barcelona Metropolitan Area has several platforms and websites where all of the information about the low emission initiative can be found. There is also a **Technical Guide** for implementing low emission zones, coordinated and written by the Barcelona Metropolitan Area (BMA) and the Institut d'Estudis Regionals i Metropolitans de Barcelona (IERMB), with the collaboration of the Spanish Federation of Municipalities and Provinces (FEMP).

SUSTAINABILITY

The entire initiative was aimed at promoting environmental sustainability and **sustainable mobility.** Low emission zones are a mobility management instrument that will help promote a modal shift in cities towards more sustainable modes of transport, and alternative low-emission vehicles such as electric cars. It will thus help Spain meet its emission reduction targets and comply with European CO_2 emission standards for the transport sector.

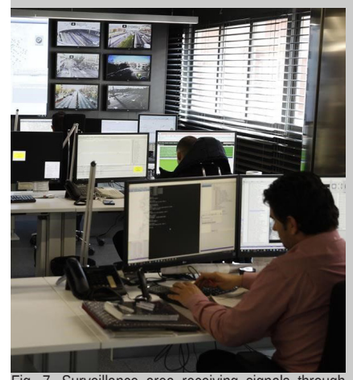


Fig. 7. Surveillance area receiving signals through cameras.

Fig. 8. Two cameras monitoring the LEZ, in El Ensanche.

Fig. 9. Poster promoting the initiative.

Fig. 10. Timetable for the initiative.

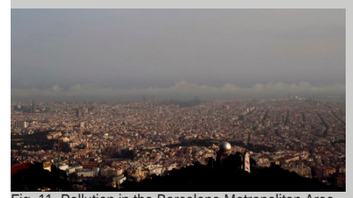


Fig. 11. Pollution in the Barcelona Metropolitan Area.

DATA

LOCATION
Salamanca, Castile and León.

ACTORS
· Salamanca City Council.
· Agency responsible for implementing the TORMES+ EDUSI.
· European Union

DATES
· 2016 Start of the programme.
· 2022 End of proposal.

AREA OF ACTION
380 hectares.

SOURCES
Website of the strategy:
https://www.mastormessalamanca.es

PHASE
In progress.

SUMMARY

TORMES+ is an Integrated Sustainable Urban Development Strategy (EDUSI by its Spanish acronym) focused on integrated functional area number 7. This is a very extensive area that groups all of the **Trastormesinos neighbourhood**s together, a total of 11, which are distributed to the south of the urban centre, near the River Tormes. Given that there are physical barriers, the functional area is split into two areas: east and west.

This good practice includes a multitude of actions and interventions aimed at turning the Tormes and its areas of influence, such as vulnerable neighbourhoods, into an active resource for sustainable urban development and developing new socio-economic opportunities. This process of improving the quality of life of the neighbourhoods is, in turn, supported by the dynamics of 'attraction' generated by the 'core' elements of the strategy.

The challenge is to view the river space as a tool of development and spatial expression, transcending its historical functionality as a background space separating the urban centre from the periphery in economic and social terms.

OVERVIEW

OBJECTIVES

The objectives of the Tormes + strategy have 5 main pillars and 22 actions:

- In the area of the environment, it proposes action on the banks of the River Tormes, to make them suitable for walkers and cyclists. In other words, carrying out an action that respects the river environment, and brings this part of the river closer to the population of Salamanca as a whole. This pillar is made up of five actions.

- In the area of **mobility and energy**, the scope of the actions serves the city in its strategy to reduce CO2 emissions and increase energy efficiency. Five actions are envisaged in this case.

- In the area of creating activity and employment, it proposes action mainly in the Salas Bajas area, which is intended to be a green zone and open space. The actions envisaged involve developing the green area, earmarking an area within the park for urban allotments and facilities to encourage activities in them. There are a total of four actions in this area.

- The **social inclusion** strategy is aimed at improving the options for the most disadvantaged people in the neighbourhoods, organised thematically around four main themes: training, social assistance, improvement of public spaces and living spaces, and developing a centre for economic initiatives. Four actions are envisaged within this strategy.

- Finally, in the area of coordination, the aim is to implement a pilot project, **Smart Salamanca**, aimed at applying technological solutions to promote the coordinated management of the strategy, involving the design process. Two actions will be carried out in this case.

BACKGROUND

The Trastormesinos neighbourhoods are an integrated unit with the most disadvantaged profile of all the neighbourhoods in Salamanca. There is a very high rate of children and young people compared to the rest of the city, which suggests the likelihood that there will be a great demand for facilities in the future. These neighbourhoods also have low levels of income and a weak local economic fabric, few services and underused public facilities and amenities.

DESCRIPTION

This is an exciting project that is intended to improve the city of Salamanca as a whole, particularly Integrated Unit 7, known as the Trastormesinos neighbourhoods, as per the General Urban Development Plan. These neighbourhoods cover: Buenos Aires, Tejares, Chamberí and Arrabal.

Firmly committed to governing through dialogue and listening to the people of Salamanca, this strategy was drawn up on the basis of a public participation process that recognised the importance of involving Salamanca's society in the debate on the future urban development model. Therefore, this **City Project** is the result of a broad process of social consensus.

The city has a natural heritage of high strategic value: the existence in the area of Salas Bajas on the river's meander covering an area of more than 30 hectares of land, classified in the urban planning as a General System of Green Areas, with enormous **potential** for recreational activities linked to allotments, directly related to the dynamics of the river and the riverside space, mainly on its left bank.

As far as demographic challenges are concerned, the project is aimed at tackling the increasing problem of population ageing, and therefore, in addition to meeting the needs of the elderly, the idea is to make the city more attractive to **young people** by increasing the availability of facilities and services for children, among other actions.

With regard to social challenges, the aim is to readapt and innovate in providing social services to combat exclusion. It also aims to overcome the problems of coexistence with neighbours, marginalisation and social segregation.

In relation to the economic challenges, the aim is to stimulate the labour market and the culture of entrepreneurship, particularly among young people, promote technical training in strategic areas for the city and enhance historical and cultural heritage.

As far as climate challenges are concerned, it is important to be aware of the effects associated with climate change, and to this end it is necessary to design low-carbon strategies in municipal management, develop green infrastructures to stimulate

Fig. 1. Map of the Tormes+ EDUSI action area.

Fig. 2. Image of the exhibition of the Strategy in the streets of Salamanca.

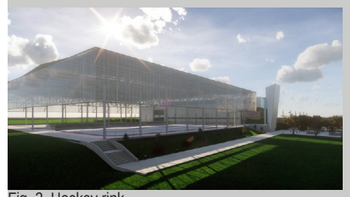


Fig. 3. Hockey rink.

Fig. 4. New footbridge over the River Tormes.

Fig. 5. Image of the footbridge being built.

Fig. 6. Artist's impression of the new agri-food market of the Tormes+ EDUSI.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.3 Improve resilience to climate change.

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.3 Improve green and blue infrastructures and link them to the natural context.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

climate change mitigation and adaptation processes in urban systems and implement energy saving and efficiency initiatives in all areas of municipal management.

The last urban challenge to be described is the territorial challenge, which aims to improve the city's connectivity and accessibility, balance development opportunities and quality of life between the city's different neighbourhoods and manage the urban sprawl process efficiently.

RESULTS

The project is at the halfway point, as 11 of the 22 actions have been completed and the rest are under development, meaning that they are either under construction, in the tendering process or that the project has been drafted.

The operations already carried out include the transformation of the Casa de Campo into the Tormes+ **training and entrepreneurship** centre, the digital training courses, the modernisation of the southern area of Tejares, the improvement of the Plaza de Extremadura, projects in the northern area, the widening of Ignacio Ellacuría and the construction of cycle lanes between Tejares, Los Alcaldes and Chamberí, the extension of the pedestrian and cycle paths over the railway and the pedestrian and cycle footbridges over the River Tormes.

To date, action has been taken to restore, recover and improve the banks of the River Tormes, promote the development of a river park and urban allotments in the Salas Bajas area, and integrate leisure and sustainable mobility facilities and infrastructures throughout the area.

The projects for the new centre for economic activities and the implementation of new technologies as a basis for making Salamanca a smart city, currently in the tendering process, have also been executed.

Furthermore, in order to evaluate the proposals in the Mobility Plan, the environmental impact in 2020 was calculated, with and without the proposed actions, to assess the Plan's contribution to sustainability. It can be seen that the Plan achieved a reduction in the impacts of mobility in the city of 6.9% compared to the baseline situation in free growth.

PROCEDURE

The procedure to select operations was carried out with a public call for proposals for operations to be included in the Tormes + EDUSI, in which **universities,** research centres and legal entities, as well as associations, foundations and companies could take part.

Once the proposals for operations had been received, the technical assessment committee analysed their suitability so that they could be included in a subsequent expression of interest formulated by one of the municipal implementation units, which was approved by resolution of the councillor responsible for finance.

Once the expressions of interest had been prepared by the **municipal implementation** units, they were evaluated by the Assessment Committee and then prioritised.

REGULATORY FRAMEWORK

The regulatory framework used to prepare and draft the Tormes+ EDUSI was as follows:

- In the development of Law 3/2008 on Essential Spatial Planning Guidelines, the territorial framework was completed by Law 9/2014, of September 27, which defines the stable functional areas of Castile and León and amends Law 7/2013 on Spatial Planning, Services and Governance. Consequently, the stable functional area of Salamanca was delimited.

- The criteria proposed both in the General Urban Development Plan and in the results obtained and managed by the Autonomous Economic Management and Collection Body (OAGER by its Spanish acronym) for assessing the state of the neighbourhoods were also followed. The Salamanaca General Urban Development Plan (GUDP) defined a total of 8 Integrated Units that group together all of the neighbourhoods included in the classification of consolidated urban land and, in this case, the delimitation of the **Integrated Units** in the GUDP was used on the OAGER's neighbourhood structure.

- The Sustainable Urban Mobility Plan (SUMP) approved in 2012.

ASSESSMENT

LESSONS LEARNED

The ultimate aim of the strategy was for all citizens to benefit, for the **quality** of life to go up in Salamanca, by improving its environmental services (river, riverbanks and allotments), and, in turn, for the socio-economic conditions and urban quality to improve in the Trastormesinos neighbourhoods.

It can be affirmed that Tormes + Integrated Sustainable Urban Development Strategy is an example of a participatory strategy. This process recognised the importance of involving Salamancan society in the debate, meaning that the actions to be implemented were the result of a broad process of social consultation. The City Council noted the fact that the people in these districts showed their willingness to remain in them, demonstrating a strong social and cultural attachment to their urban environment.

GOVERNANCE AND TRANSFERABILITY

The ERDF supported Salamanca City Council, through operational programmes. These were primarily based on sustainable urban development, through strategies that set out integrated measures to address the demographic, social, economic, climatic, environmental and territorial challenges affecting urban areas, while taking into account the need to promote urban-rural links.

In short, thanks to a budget funded, in part, with European ERDF funds, the EDUSI and the strategic plan it incorporated, came about as an opportunity for the future of the city.

SUSTAINABILITY

It is a sustainable development operation based on enhancing the value of the existing resources in the neighbourhoods and, fundamentally, the human resources supported by a diverse social fabric, where social inclusion and intermediation policies are crucial for the most vulnerable groups.

Because of their historical, functional and locational configuration, there was no way to implement urban development policies based on the "magic triangle" (cultural heritage, university and tourism), which has given such excellent results in the historic centre of Salamanca, in the suburban Trastormesino neighbourhoods.

Here the options for development inevitably involved **structural policies** with social, economic and, of course, environmental content.

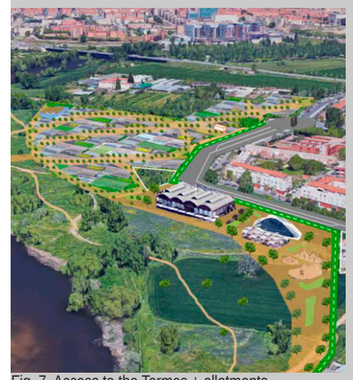


Fig. 7. Access to the Tormes + allotments.

Fig. 8. Aerial view showing the objectives of the Tormes + EDUSI.

Fig. 9. Map of the Tormes + EDUSI.

Fig. 10. Image of the Tormes allotments.

Fig. 11. Image of the area of action on the river.

DATA

LOCATION
Alfaro, La Rioja.

ACTORS
· MITECO.
· Ebro Hydrographic Confederation
· TRAGSA
· Autonomous Community of La Rioja.
· Alfaro Town Council.

DATES
· 2019: Start of the project and funding agreement.
· 2026: Conclusion of the work.

AREA OF ACTION
Alfaro: Ortigoso (20 ha); La Nava (25 ha); Estajao (21 ha) and La Roza (22 ha).

SOURCES
Ebro Resilience, General strategy of actions; Feasibility report on the project for the morphological adaptation and environmental restoration of the River Ebro in Alfaro and Milagro (La Rioja and Navarre):
https://ebroresilience.com/
https://www.youtube.com/watch?v=IAu9jm3OnyU

PHASE
In progress.

SUMMARY

The Ministry of the Environment, through the Ebro Hydrographic Confederation (CHE) and the Autonomous Communities of Aragon, La Rioja and Navarre have joined forces on this project, which is a sub-project of the Ebro Flood Risk Management Plan (PGRIEbro by its Spanish acronym). It is based on implementing combined measures to improve resilience to floods, through sustainable solutions that are better adapted to climate change.

The scope of the strategy is the **middle stretch of the Ebro** (Logroño-La Zaida, Zaragoza), as it is one of the areas where floods are most frequent and the greatest magnitude and surface area are affected, with significant damage being recorded on a regular basis.

An extensive process of public participation was required to reach a consensus with the interested parties on the measures to be carried out, extending to all the phases and which, in addition to involving the riverside municipalities, allowed mayors, farmers, the associations of those affected, environmental associations and the administrations to analyse the proposals prior to drafting the projects.

The restoration of the River Ebro in Alfaro (La Rioja) and Milagro (Navarre) is a pilot project within “Ebro Resilience”, which is intended to serve as an example of environmental recovery actions and the promotion of sustainable public use in a highly sensitive natural area: the Sotos del Ebro Nature Reserve in Alfaro, which belongs to the Natura 2000 network.

OVERVIEW

OBJECTIVES

The two keys of the Ebro Flood Risk Management Plan are the promotion of **cooperation and coordination between the administrations** responsible for flood management and social awareness, so as to increase awareness about the risk of flooding, enhance self-protection and reduce the damage caused by floods.

Consequently, the primary objective of the Ebro Resilience Strategy is to set up the framework for collaboration between the different administrations involved and the population in order to improve resilience to floods in the middle stretch of the Ebro and the lower stretches of its tributaries as they pass through the different Autonomous Communities.

The aim is also to improve the **ecological condition of the river**, both in terms of the Water Framework Directive (WFD) and Hydrological Plan for the Ebro basin and the development of habitats of interest for the biodiversity of the area.

BACKGROUND

The municipalities on the banks of the Ebro River settled along its banks so that they could have easy access to the water and increase the area available for cultivation by building dykes (**dams and containment walls**), attached to the riverbed, which modified the course and natural dynamics of the river. This increased the risk of flooding in the surrounding areas, as the river became narrower, deeper and faster, more powerful and more prone to overflowing.

Moreover, the same defences that protected the fields also prevented the water from returning to the riverbed once it had overflowed (thus increasing the time that crops were flooded). This gradual decline in the dynamism of the Ebro has led to a worsening of the ecological state of the riverbed, put its biodiversity at risk, led to significant economic losses and shown no signs of spontaneous reversal.

DESCRIPTION

All of these actions are aimed at eliminating the constrictions caused by the construction of the containment walls (moving them and reconnecting the channels with the flood plain), thereby helping with **flood abatement**, reducing the risk of flooding and maintaining riparian ecosystems. In total, the plan is to remove 7,930 linear metres of existing containment walls and build 4,328 metres of new recessed walls (giving the river more space) with 70,780 m2 of new relief channels. The riverside copses will also be recovered in all of the actions by planting native species and habitats will be created specifically for the European mink. The four areas of action are in the following locations: (1) Ortigoso, (2) La Nava, (3) Estajo and (4) La Roza.

(1) Ortigoso: Near the municipality of Milagro and before the confluence with the river Aragón, the Ebro flows through a winding meander, boxed in between the dykes and the remains of old backfills and artificially levelled land intended for cultivation. In order to increase the river’s drainage capacity, the land will be lowered and the existing containment walls on both banks will be set back: one at the entrance to the meander (in the municipality of Alfaro) and the other at the exit (in the municipality of Milagro). The rest of the surface will be decompacted by means deep subsoiling to allow the river to recover its original state, thereby facilitating the natural flood abatement, erosion and sedimentation processes of the river and reducing the impact of any flooding events.

(2) **La Nava:** The meeting point between the Ebro and the Aragón will be improved and enlarged in this area to make it easier for them to flow in the event of possible flooding. The right bank defence will be set back, leaving it open to allow potential overflows to flow out more easily. 25 hectares will be reclaimed for the river area, with 1,376 metres of the containment wall set back towards the right bank. A habitat will be created in the reclaimed area for the European mink (one of the most endangered animal species in the world) by means of a wetland of some 23,000 m2 (made up of water from the water table). Islands, areas of dense helophytic vegetation, wet grasslands and areas with tree and shrub vegetation will be used to form the wetland.

(3) **El Estajao**: Downstream, in the Soto del Estajo, the fastest moving and most erosive curve of the river will be smoothed out, thereby protecting the new wells that supply water to the population of Alfaro. This recessing work will return 21 hectares of floodplain to the river, substantially improving the hydraulic section and increasing lateral connectivity and biodiversity. The river flow over the defence will be preserved, but now with the height of the land resulting from removing the defence, thereby maintaining the route through this woodland (which is of great tourist and educational interest).

(4) **La Roza**: The historic morphological study of the La Roza meander shows that, during flood events, water cuts across this meander, meaning that it flows towards the railway bridge. This phenomenon was prevented after defences were built around the perimeter of the meander and the interior area was levelled in the form of terraces to encourage crops to be planted: productive fruit trees and poplars. The action will remove 1,350 metres of the defences that run parallel to the riverbed and close to the existing river undergrowth and the railway bridge, and will recover 22 hectares of flood plain, thereby improving the flow and the hydraulic functioning of the bridge. The construction of a relief channel has also been planned, as a secondary channel for high water levels, located at the neck of the meander in order to increase the drainage section and the slope.

RESULTS

The work on the La Nava site was the first of the works in Alfaro. In a few months of work, a new wetland has been created, connected to the Ebro riverbed, and the defence has been set back. This action will restore 25 hectares of river space in a protected reserve.


Fig. 1. Flooding of the Ebro.


Fig. 2. Proposal for action on the Ortigoso site.


Fig. 3. Proposal for action on the La Nava site.


Fig. 4. Proposal for action on the Estajao site.

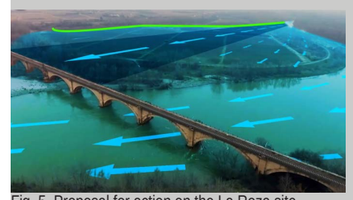


Fig. 5. Proposal for action on the La Roza site.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.3 Improve resilience to climate change.

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

Work on the wetland began in the summer with the marking of its lobe-shaped perimeter to support European mink, and most of its slopes are in the form of a beach, very flat (6:1), so that the animals have easy access to them. There are also stretches of vertical slope for nesting species such as the sand martin. The vegetation that makes up the plant cover of the wetland is in the area where the water surface fluctuates, i.e. on the beaches that are submerged in winter and dry in summer, and the species used are shrubs: willows, tamarisk, hawthorns, blackberries and rose bushes. Cattails and reeds have been planted in the permanent stretch of water.

PROCEDURE

The procedure followed consisted of carrying out detailed hydraulic studies using the latest available technologies. These studies took the **flood damage history** of recent and historical flood processes into account. The proposed alternatives for action were presented to stakeholders and the general public in participatory workshops. Once the most efficient alternatives had been selected, a joint environmental assessment of the planned actions was carried out in order to consider their synergistic effects. An economic and technical plan for carrying out the actions was then drawn up.

REGULATORY FRAMEWORK

- **Directive 2007/60/EC** of the European Parliament and of the Council, of October 23, 2007 on the assessment and management of flood risks (transposed to the Spanish legal system by Royal Decree 903/2010, of July 9, 2010, on Flood Risk Assessment and Management).

- Directive 2000/60/EC of the European Parliament and of the Council of October 23, 2000, establishing a framework for Community action in the field of water policy (transposed into Spanish law, inter alia, by the amendment of the Royal Legislative Decree 1/2001, of July 20, 2001, approving the revised text of the Water Law).

- Council Directive 92/43/EEC of May 21, 1992 on the conservation of natural habitats and of wild fauna and flora (transposed into Spanish law by means of an amendment to Law 42/2007, of December 13, 2007, on Natural Heritage and Biodiversity).

A cost of 12,145,000 euros has been earmarked for the four actions in Alfaro, of which La Nava has already involved an investment of 2.2 million euros, funded from the budgets of the Ebro Hydrographic Confederation, but co-ordinated by MITECO in collaboration with the Government of La Rioja and Alfaro Town Council.

Work in Ortigoso and El Estajao will be funded from MITECO funds. The work on La Roza has been included in the LIFE20 project ENV/ ES/000327 EBRO RESILIENCE P1 and will be funded by the LIFE Programme, MITECO and the Government of La Rioja.

ASSESSMENT

LESSONS LEARNED

Public participation (as well as significantly influencing perceptions) has made it possible: (1) to understand and exchange technical and local knowledge about the region, (2) to broaden views and improve awareness about the risk and the need to implement measures, (3) to understand how the river system works, (4) to influence decisions, and (5) to foster co-responsibility for the measures taken and facilitate their implementation.

Improving flood risk management in the middle stretch of the Ebro is a collective challenge. The Ebro Resilience strategy has been a framework for **collaboration between the different administrations** and other actors to work in solidarity and coordination.

The implementation of **pilot projects** has been an example of environmental recovery and the promotion of sustainable public use, thereby making it easier for the competent authorities to manage the area, by providing a framework for collaboration that benefits all users.

It has been demonstrated that plots for which the repair costs and compensation received for flood damage exceed the value of the land should either be incorporated into the river space or be adapted.

GOVERNANCE AND TRANSFERABILITY

As these actions are located in one of the areas where the flooding caused by the river has a greater magnitude, frequency and surface area affected, they are an example for others in the middle stretch of the Ebro. They can also be applied to the rest of the major rivers in Spain.

The actions of recessing the containment walls can be replicated without any problems. This eliminates the narrowing of the river and connects the riverbed with the floodplain, thereby helping flood abatement, reducing the risk of flooding and preserving ecosystems.

In addition, innovative solutions such as creating wetlands that are interconnected with the riverbed and establishing new vegetation cover are an example of how to create habitats that foster the presence and protection of native fauna species.

The Ebro Resilience Strategy is reviewed and updated every six years, so when there are substantial changes to the management of flood risk in the middle stretch of the Ebro, the objectives and contents of the strategy may be revised to match the revisions of the Flood Risk Management Plan for the Ebro River Basin District.

SUSTAINABILITY

This action is based on implementing combined measures to improve **resilience** to unavoidable flood events, through interventions that are compatible with sustainable development that adapts to climate change.

The traditional flood risk management model, based almost exclusively on the concept of protection, by constructing defence structures and by keeping drainage sections constantly clear, has proved unsustainable due to its environmental impact, its limited effectiveness, its long-term consequences and the social backlash and legislative changes that now prohibit it.

The aim is to turn this environment into a resilient model that is capable of returning to its initial state by itself after each period of flooding so that the return to normality is immediate and with the lowest possible social costs. The new river management model aims to take advantage of the contribution of river dynamics to maintaining drainage capacity by reducing the need for periodic maintenance and the vulnerability of defences by reducing pressure on them.

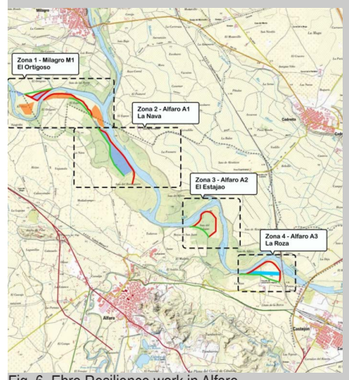


Fig. 6. Ebro Resilience work in Alfaro.

Fig. 7. Ebro Resilience logo.


Fig. 8. La Nava: lagoon in the implementation phase.


Fig. 9. Public participation event.


Fig. 10. Construction work on the new containment wall.

SUSTAINABLE RESOURCE MANAGEMENT AND CIRCULAR ECONOMY

4 STRATEGIC GOAL MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

SPECIFIC GOALS

4.1. BE MORE ENERGY EFFICIENT AND SAVE ENERGY.
- · Zero-emission buildings in Pamplona.
- · GreenS Project, sustainable public procurement of Cadiz Provincial Council

4.2. OPTIMISE AND REDUCE WATER CONSUMPTION.
- · Sustainable Storm Water Management Guidelines for Madrid.
- ·Strategic Plan: Sustainable Public Management in Andalusia.

4.3. PROMOTE MATERIAL CYCLES.
- · Reciclos.
- · Rural energy community of Castilfrío de la Sierra.

4.4. REDUCE WASTE AND PROMOTE ITS RECYCLING.
- · Circular Economy in Castilla-La Mancha.
- · Circular bioeconomy for organic waste in the Sangüesa Community of Municipalities.

DATA

LOCATION
Pamplona, Navarre.

ACTORS
· Local government
· San Jorge Sports Complex
· Public-private-citizen partnership - Spanish Committee on Habitat..
· Private sector - TYM Asociados and TYM Energía.

DATES
· November 2006: Start of work.
· March 2009: Start of Phase II and Phase III.
· January 2010: End of work.

AREAOF ACTION
Phase I: a constructed area of approximately 14,112 m2.
Phase II: The total constructed area is 2400 m2.
Phase III: the constructed area of this third phase is approximately 1,600 m2.

SOURCES
Pamplona City Council:
https://www.pamplona.es/entidades/complejo-deportivo-aquavox-san-jorge

RECOGNITION
· 2009-2010: Special Mention in the 4th Best Practices in Sustainable Local Development Award from the Autonomous Community of Navarre.
· November 2010: First Prize in the 3rd Award for Local Good Climate Practices.
· December 2011: 9th Sustainable City Award.
· May 2012: Bioenergy Silver Award.

PHASE
Implemented.

SUMMARY

The San Jorge Sports Complex, known as Aquavox San Jorge, opened its doors in 2007, in the vicinity of the River Arga park. The complex has outdoor swimming pools, a hydrothermal area and a social building, among other facilities. It is the first **zero-emission** building in the city, with an A energy rating. To become an example of efficiency and meet its own energy needs, it has a solar photovoltaic installation, a solar thermal installation, a mini-wind installation and a biomass installation.

The sustainable criteria applied relate to the layout of the buildings to make the most of sunlight, the choice of geometries with a low shape factor, new purification designs that minimise water renewal, and features such as pergolas, sunshades, high-performance lighting, thermal blankets and ventilated façades, among others.

Pamplona City Council was committed to these sustainability criteria right from the design phase, thereby achieving an environmentally-friendly and energy-efficient **sports and leisure facility**.

OVERVIEW

OBJECTIVES

The main objective of the proposal was to achieve a design that incorporated **bioclimatic architectural criteria**, maximising the provision of heating, cooling and lighting services, with the minimum possible consumption, and prioritising the application of renewable energies.

The project aims to offer a friendly space, encouraging a serene attitude, social relationships, sporting activities and establishing a pleasant visual relationship with the natural environment outside (Pamplona Riverside Park). Right from the design phase, Pamplona City Council opted for sustainability criteria which are now compulsory for all new municipal buildings.

The project has helped establish a renewable, efficient **construction policy**. This building has been followed by others such as:

- The nursery school in the Buztintxuri neighbourhood has a biomass boiler and sustainable construction criteria.

- The nursery school in the La Milagrosa neighbourhood has geothermal energy, a green roof and sustainable construction criteria.

- The sheltered housing flats in the La Milagrosa neighbourhood have a biomass boiler and solar thermal energy.

- The municipal homeless shelter has a biomass boiler and sustainable construction criteria.

BACKGROUND

The project is located in the San Jorge neighbourhood, which had no sports infrastructure, so there was a demand from its residents. The plot where the facilities were located was available and classified as a sports facility by the planning department. It was also well connected to other neighbourhoods in the city (Mendebaldea); in fact, the facility has generated a strong flow of users, particularly from the San Jorge neighbourhood, in the area of the sports facilities.

DESCRIPTION

From the outset, the San Jorge sports complex was designed as a unique project from the point of view of sustainability, in which the use of **clean, renewable energies** would be promoted. All of the measures imposed under eco-design criteria converged in a large-scale project from an energy and sustainable point of view, and the building was classified as a zero-emission building in terms of its thermal installations. The following points should be noted:

- Design of the volume: volume with a low shape factor; priority is given to orientations towards “green”, non-noise-generating spaces.

- Thermal envelopes that capture and distribute energy: ventilated façades and roofs that capture radiant solar energy in their architecturally integrated photovoltaic panels and incorporate natural light inside the swimming pool through skylights.

- Energy from biomass and solar thermal energy, to produce domestic hot water and heat swimming pools.

- Interior courtyards and natural light with the incorporation of patios, as well as facilitating cross-ventilation and, therefore, thermal adaptation.

- **Energy-efficient** systems: water-to-water heat pump with full condensing heat recovery.

- Wind energy: installation of three urban wind turbines on the roof of the social building, which complement the production of electrical energy from the solar photovoltaic installation.

- Artificial lighting management: use of efficient systems for regulating the luminous flux depending on the amount and/or presence of natural light; high-performance lighting fixtures, electronic equipment and efficient new technology lamps.

- Rationalisation of domestic hot water consumption: installation of timed thermostatic buttons in showers and washbasins; shower heads with **flow limitation**; option to switch recirculation systems off.

Fig. 1 Outside Aquavox de San Jorge.

Fig. 2. Energy efficiency is one of the cornerstones of zero-emission buildings.


Fig. 3. Zero-emission buildings.


Fig. 4. Photograph of the solar panels on the building.

Fig. 5. International zero-emission building initiatives.


Fig. 6. View of the roof of the Aquavox.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

- Other active measures: reactive energy compensation; centralised regulation of the production equipment and cascade control of the different energy sources, prioritising **free and renewable** energy sources; independent air-conditioning equipment for each room with individual control in the room itself; independent circuits for each area of the building depending on its operating hours and/or occupancy; variable flow pumps with energy classification A, all air conditioners will have free cooling; total recovery of extraction heat in pool air-conditioners and dehumidifiers; window sensors are incorporated to stop the air-conditioning; installation of thermal blanket over swimming pools; ventilation control depending on occupancy.

RESULTS

Operating data confirm that the objectives sought in the simulation carried out in the design phase of the San Jorge Sports Complex, which included a thermal production plant based on two water to water heat pumps and a biomass boiler, have been achieved.

The **coexistence** of simultaneous cooling and heating demands throughout the year allowed water to water heat pumps to produce the cooling required by the installation and to fully recover the condensation heat for use. This solution would make it possible to obtain an energy efficiency ratio (EER) of around 8-9, much higher than any other option.

The solar photovoltaic installation has a power output of 56 kW and is the largest installed on a building owned by Pamplona City Council. Thanks to the installation, an annual saving of 40,692 kilograms of CO2 emissions has been achieved, which is equivalent to the CO2 absorbed by 4,500 trees. The building's heating needs are covered by three biomass boilers and a solar thermal system. The power of these boilers is 100 kW each and they have a pellet silo with an autonomy of approximately 40 days.

The mini-wind power plant has three mini-wind turbines with a rated output of 1.75 kW, resulting in a reduction of at least 680 kg of CO2 emissions per year for each turbine.

PROCEDURE

This action was launched as a result of open government participation initiative called *"La Alcaldesa en tu barrio"* (the mayoress in your neighbourhood), in which the residents of the area explained their main needs to the mayoress and helped to define the programme of uses. The working-class neighbourhood in which the facility is located actively took part in this project and requested a social facility.

This was an initiative which, due to its high cost, needed to seek funding from other institutions and draw up a development plan that would allow it to be built in phases, thereby making it possible to build the facility based on the availability of funds.

The first phase of the San Jorge Sports Complex began in November 2006 in accordance with the project designed by TyM Arquitectos Asociados. At that time, in addition to urbanising the access points to the new building, work was carried out on a built-up area of more than 14,000 m2.

Nearly two years after the completion of the phase III works, the facilities are now fully operational throughout the year.

Once the facilities were completed, the municipality began to organise visits to the renewable energy facilities on site to educate **students and citizens** about clean energy.

REGULATORY FRAMEWORK

A development project, which included a special plan and a detailed study, was drawn up, which made it possible to plan the access points and parking area, and the new public areas, respectively. This development project made it possible to build the new sports complex in separate phases.

ASSESSMENT

LESSONS LEARNED

Public administrations are obliged to be a point of reference for society and must therefore set an example of good practices in their actions. Using new technologies requires more personal care and effort than using more mature technologies; it is important to have clear objectives and not to give up when difficulties arise. It is becoming increasingly important to work in **multidisciplinary teams**; the continuous technification of buildings makes it necessary to have technicians and suppliers who are experts in a wide variety of disciplines. This building established **sustainable building guidelines** that are being applied in all new municipal buildings as far as possible.

GOVERNANCE AND TRANSFERABILITY

Pamplona City Council has other municipal facilities that were used as an example when it came to developing the San Jorge Sports Complex. During the project's development phase, the municipal technicians from the Projects Department, the Sports Department and the design companies carried out the important work of analysing the existing facilities. Likewise, the San Jorge Sports Complex will be an example for other building projects. The Lezkairu Sports Complex is being developed with a mutual exchange and transfer of experiences with the technical teams who designed the San Jorge Sports Complex.

They have taken part in **congresses and publications** specialising in the field in order to transfer their knowledge. The fact that this action has received several awards has led to the project being more widely publicised. Pamplona City Council also organises visits to the facilities so that companies and citizens can get a close-up view of how this type of building works.

SUSTAINABILITY

Financially, the development plan was designed to enable the building to be constructed in phases. Consequently, the construction has adapted to the availability of external funding. Cost wise, there were no upward deviations in the construction project due to the project's technicians and designers monitoring the project closely. From a social point of view, a municipal sports complex has been built in a working-class neighbourhood, which allows all sectors of the population to be integrated into the neighbourhood through using it. It is also worth noting the **inclusion** of social aspects in how it is set up, as priority is given to the use of and access to the centre by women, the disabled and the elderly.

The project also disseminates a sustainable culture, mainly from an environmental point of view; it is a pioneer in reducing the use of non-renewable resources and new sustainable techniques and renewable energies. The building's A energy rating made it the first Pamplona City Council building with this rating, having achieved the status of a zero-emission building in terms of thermal insulation.

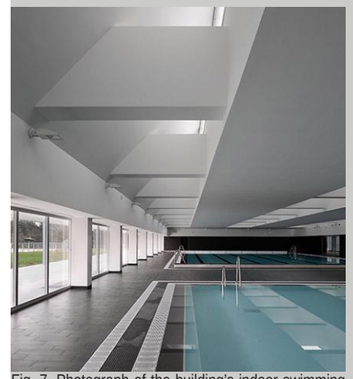


Fig. 7. Photograph of the building's indoor swimming pools.

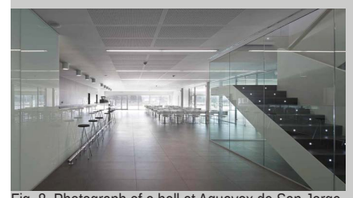


Fig. 8. Photograph of a hall at Aquavox de San Jorge.

Fig. 9. Photograph of one of the swimming pools.

Fig. 10. The square outside Aquavox de San Jorge.

Fig. 11. Entrance to Aquavox de San Jorge.

DATA

LOCATION
Cádiz, Andalusia.

ACTORS
· European Commission.
· Cadiz Provincial Council.
· ICLEI: Local Governments for Sustainability.
· Andalusian Federation of Municipalities and Provinces (FAMP by its Spanish acronym).

DATES
· 2006: Creation of the Energy Agency of the Province of Cadiz.
· 2008: Approval of the Green Public Procurement Plan, the Action Plan on Sustainable Product Consumption and the Sustainable Industrial Policy.
· 2015: Cadiz Provincial Council joined the European consortium and started implementing the project in Cadiz.
· May 2018: Conclusion of the GreenS sustainable public procurement project with the launch of a network promoting the circular economy.

AREA OF ACTION
Province of Cadiz.

RECOGNITION
2018: Local Best Climate Practice Awards in the circular economy category.

SOURCES
Official website of the GreenS Project:
https://greensproject.eu/es/

PHASE
Implemented.

SUMMARY

The GreenS project was an EU-driven initiative involving **eight countries**. In Spain, it included the entire province of Cadiz. This project was designed to focus the attention of public authorities on Sustainable or Green Public Procurement (SPP-GPP), product life cycle costing and procurement thinking as part of their resources for achieving the EU's CO2 reduction targets for 2020.

Cadiz Provincial Council took part in this European initiative, through the Provincial Energy Agency, together with 13 other entities from seven countries. The main purpose of this project was to train public authorities and employees on how to apply **Sustainable Public Procurement** (SPP) policies correctly. This included setting up specialised SPP support units and providing targeted training for public sector workers. Consequently, a project was created that was committed to sustainability and that can be transferred anywhere with the aim of moving towards a better society.

OVERVIEW

OBJECTIVES

The main objective of the project was to **manage resources in a sustainable way** and to promote the circular economy. More specific targets were set in order to become more energy efficient, such as:

- Strengthening the capacity of public authorities to implement SPP.

- Standardising the SPP practice across public administrations.

- Overcoming barriers to SPP by providing technical support from Energy Agencies.

- Creating a space for dialogue and exchange of ideas in political decision-making and providing practical and legal guidance.

- Establishing common environmental criteria, tools and methods for SPP in the EU.

BACKGROUND

The decline in environmental, social and economic quality made it necessary to set up new horizons that would make it possible to bring about real improvements in the lives of citizens. The Cadiz Energy Agency was aware of the needs for **technical and financial advice** demanded by the public authorities. Consequently, activities aimed at tackling these problems and facilitating the institutionalisation of SPP in local governments in different regions of Europe were proposed.

As a result, SPP was implemented in local administrations at a point where there were serious obstacles that were difficult to overcome: lack of political support, training, tools and previous experiences that could serve as a guide to the professionals responsible for SPP in local councils; lack of cooperation and no specific knowledge exchange on this subject between local entities, among others.

DESCRIPTION

The GreenS project was an initiative supported by the European Commission through the Horizon 2020 programme that sought to address the barriers encountered by public administrations in implementing SPP criteria.

These criteria allow public administrations to **reduce the environmental impact** of their activity by moving towards goals of sustainability, saving energy and reducing greenhouse gas emissions.

The GreenS project broadly outlines specific recommendations for improving SPP processes (with a special focus on procuring products and services that use energy) and incorporating them into long-term public policies as well as Sustainable Energy Action Plans. It was designed to focus the attention of public authorities on SPP, product life cycle costing and procurement thinking as part of their resources for achieving the EU's most ambitious targets for reducing CO2 levels by 2020.

During its three-year duration, the project carried out various activities in the regions involved in terms of **improving the implementation** of SPP. The key activity was setting up specialist GPP "units" within supra-municipal bodies or other entities to provide technical support and back-up at a local level (e.g. departments, provincial councils, energy agencies, development institutes, etc.). In the case of Cadiz Provincial Council, the support unit was created within the framework of its Provincial Energy Agency. These "units" were made up of 1-2 technicians with specialist GPP training.

RESULTS

The main objectives achieved by the project (within the province of Cadiz) were:

- Setting up a GPP **Support Unit** within the Energy Agency of Cadiz Provincial Council, which provided advice on more than 10 procurement processes during the project. The Support Unit remained active after the project had come to an end.

- The organisation of 8 training workshops with more than 140 municipal decision-makers trained on green public procurement processes.

- The launch of **4 successful pilot projects**, including contracting an electricity supply from renewable sources for the offices of Cadiz Provincial Council and the municipalities of Grazalema and Bornos, as well as the acquisition of urban buses with low emissions

Fig. 1. Flow diagram for the GreenS project.

Fig. 2. Countries that are part of the consortium.

Fig. 3. Diagram of expected results.

Fig. 4. Diagram on the project's stakeholders.

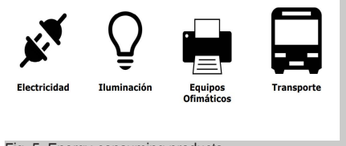


Fig. 5. Energy-consuming products.

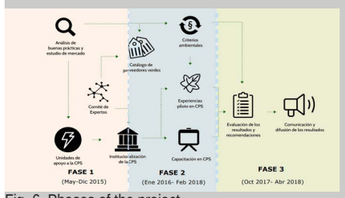


Fig. 6. Phases of the project.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

of particles, CO2 and other polluting gases for the municipality of Jerez de la Frontera.

- In terms of reducing the carbon footprint, the project resulted in a reduction of emissions of more than 1,200 tCO2 eq per year. Furthermore, it is estimated that new green contracts will result in financial savings of approximately €75,000 per year for the local authorities involved.

- **Support material** has been prepared for applying environmental criteria in local procurement, including guides on environmental criteria for several categories of products, training material, an on-line catalogue of suppliers and manufacturers of green products, and an example of GPP specifications.

- The **Andalusian GPP Network** of public agencies and private entities was set up with the aim of exchanging information and promoting synergies. GreenS also inspired a national pilot project on SPP by the Spanish Network of Cities for Climate.

PROCEDURE

Although Europe had already begun to consider introducing new horizons to improve our lives, in Spain, the Cadiz Provincial Energy Agency was created in 2006 as part of the Intelligent Energy Europe Programme, which was aimed at optimising the use of energy resources, promoting sustainable development and boosting the sources of wealth and energy production in the province of Cadiz. In 2007, two laws were passed to regulate the GreenS project.

In 2008, the Green Public Procurement Plan was approved with the aim of implementing environmentally friendly practices in public procurement. However, the process remained in the background until, in the first half of 2015, Cadiz Provincial Council joined the consortium made up of 13 other entities from 7 different countries to take part in the GreenS project and, after the approval of several decrees, the **implementation of the project** in Cadiz began.

Between January 2016 and February 2018, the people involved in the process were formally trained on SPP and began to set up pilot projects to showcase the benefits of SPP. And then, finally, between October 2017 and April 2018, the projects were evaluated, recommendations were made, and the final results were publicised and disseminated. On May 24, 2018, Cadiz Provincial Council brought the GreenS sustainable public procurement project to a close, with the launch of a network promoting the circular economy.

REGULATORY FRAMEWORK

RELATED POLICY AND LEGISLATION

The **current European regulatory** framework governing the GreenS project are the Directives of the European Parliament and of the Council on public procurement, the awarding of concession contracts and the Directive on electronic invoicing in public procurement.

Similarly, there is also a regulatory framework in force in Spain which regulated the project in Cadiz.

- Law 30/2007, of October 30, on Public Sector Contracts (LCSP by its Spanish acronym).
- Law 31/2007 of October 30, on procurement procedures in the water, energy, transport and postal services sectors.
- Royal Legislative Decree 3/2011, revised text of the LCSP.
- Royal Decree 163/2014, of March 14, creating the register of carbon footprints, offsets and carbon dioxide absorption projects, which stipulates that the contracting body may include the carbon footprint in public procurement among the environmental considerations (Article 10).

ASSESSMENT

LESSONS LEARNED

Four lessons learned from this initiative by Cadiz town council are worth highlighting.

- The first was the commitment to **quality, tailor-made training** for public bodies, and the importance of the personalised technical support service. This proved to be an effective strategy and involved a good number of municipalities in the process of institutionalising GPP.

- The second involved improving the ability of public entities to save energy and reduce CO2 emissions and related energy costs by applying **innovative GPP solutions**.

- The third was to carry out **technical support** in the field of GPP, and encourage multi-level cooperation between a variety of key actors at a national, regional and local level.

- The fourth involved finding ways to achieve tangible results within the thematic framework of the project when the GPP Support Units, which were active in their regions and countries, were not direct public purchasers.

GOVERNANCE AND TRANSFERABILITY

The project and its results were widely disseminated and reported at a regional and international level so as to maximise its impact. It can be applied by other local authorities both nationally and internationally.

SUSTAINABILITY

This project was aimed at improving the sustainability of towns and cities in three areas: environmental, social and economic. How each of these was achieved is detailed below.

As far as environmental sustainability is concerned, SPP works as an instrument to combat deforestation, GHG emissions, water and energy consumption, waste generation and environmental pollution. This project raised awareness of the main environmental problems, and acted as a useful channel for increasing environmental awareness and identifying the impact of consuming certain products and services.

In terms of health and social sustainability, SPP contributed to developing more demanding quality standards that extended to private consumers, improving the overall standard and giving better returns to public administrations and citizens. SPP policies can also improve public services and, therefore, quality of life, e.g. by aiming for cleaner public transport and reducing the use of toxic chemicals.

And as far as economic sustainability was concerned, the project helped **incentivise industry** to develop “green” technologies and products and get them onto the market. It was a special opportunity for SMEs offering innovative products and solutions.

Fig. 7. Pilot project involving the purchase of natural gas buses in Jerez de la Frontera.

Fig. 8. Pilot project on supplying green electricity to the municipality of Grazalema.

Fig. 9. CLEI experts meet energy managers from Lea Pormuje in Slovenia.

Fig. 10. The FAMP and the Provincial Energy Agency of Cadiz meet to discuss SPP.

Fig. 11. Closing day of the GreenS Project.

DATA

LOCATION
Madrid, Spain..

ACTORS
·Madrid City Council. Directorate General for Water Management and Green Areas. Directorate General for Public Space, Works and Infrastructure.
·Green Blue Management of the TYPSA Group (Técnica y Proyectos S.A).
·Technical University of Madrid (UPM).

DATES
· 2006-2016: Several laws on water management and the efficient use of water were approved and awareness of sustainable drainage increased.
· 2018: Publication of the Design Guide for Sustainable Stormwater Management Systems in Green Areas and other open spaces.
· 2019: YWP Conference where the new Sustainable Stormwater Management Guide was presented.

AREA OF ACTION
Green areas and open spaces whose use can be assimilated to that of the green areas in the municipality of Madrid.

SOURCES
Basic Design Guide for Sustainable Stormwater Management Systems in Green Areas and other Public Spaces.

PHASE
Implemented.

SUMMARY

Following the **approval of the By-law** on the Management and Efficient Use of Water and Royal Decree 1290/2012 of September 7, the Design Guide for Sustainable Stormwater Management Systems was published in November 2018. It provides basic guidelines and a methodology for designing Sustainable Urban Drainage Systems (SUDS), and facilitating their integration into the way cities are built in a more resilient, green, sustainable way by the competent technicians.

SUDS are the best known of the sustainable storm water management systems. They are designed to collect part of the rainwater in order to allow it to filter into the ground in a controlled manner and delay its discharge into the sewage system so as to avoid overloading in order to optimise and reduce water consumption and thus ensure the sustainable management of resources.

The living nature of the Guide means that new contributions to the initial document are welcome and, for this reason, users are encouraged to send their comments through citizen participation via the Madrid City Council website, where the document is published and disseminated. Since its launch, the Guide has been applied to different types of projects, demonstrating the broad spectrum of application of SUDS.

OVERVIEW

OBJECTIVES

The Basic Design Guide for Sustainable Stormwater Management Systems in Green Areas and Other Public Spaces is intended to be a simple, specific document that makes it possible for technicians involved in developing public and private urban environments to take sustainable stormwater management into account.

This **sustainable management** is achieved through SUDS. These try to reproduce the behaviour of a natural basin prior to urbanisation, thereby helping to strengthen the principles of governance dictated by Spanish and European legislation: improving the status of water bodies, protecting against floods and droughts, adapting to and mitigating the impacts of climate change, reducing energy consumption in the urban water cycle and conserving biodiversity, among others.

The main objective of sustainable stormwater systems is to temporarily stall any run-off generated. This prevents water from being directed directly into the system, reducing the problems associated with managing the municipal sewerage system in wet weather, such as flooding and overflow discharges from unitary systems, thereby making them **more resilient.**

BACKGROUND

Until a few years ago, urban drainage projects focused solely on the **"quantity" of run-off** water to be drained away, without taking into account the "quality" of the drained water that was discharged into the environment.

Madrid City Council managed run-off water with conventional urban drainage infrastructures: street drains, sewerage network, large sewers, storm tanks and water treatment plants. However, these sewerage systems were designed to prevent flooding, without considering the potential damage of discharging highly polluted water into the environment.

DESCRIPTION

The document describes the main SUDS devices, sets out the design process and presents Spanish and international experiences that can be used as inspiration. The guide is characterised by the fact that it is a living document and is open to **new contributions.** Therefore, it is a useful document that, as users make it a work tool, will be updated to reflect new experiences and lessons learned.

A selection of the most appropriate types of SUDS for Madrid has been made for the scope of application of the guide. The main characteristics are presented on a sheet with the following information: description, qualitative assessment, diagram showing the typical make-up of each device, design criteria, benefits and limitations, maintenance requirements, and other considerations related to implementation.

The types of SUDS include the following devices: vegetated roofs, cisterns, permeable pavements, structural swales, rain gardens, infiltration pits and trenches, reticular cells and boxes, filter drains, vegetated ditches and elements such as vortex valves, hydrodynamic separators and compact filters.

The guide concludes with a number of annexes with practical information for users: procedure and results of permeability tests carried out on various works in Madrid, typical sections of permeable pavements and drainage ditches and a spreadsheet for applying the SUDS calculation methodology described in the guide.

RESULTS

The guide is currently being used internally by municipal technicians working on green areas, roads and car parks in Madrid, as its usefulness in designing rainwater management systems at source has been proven. Several projects have been carried out to implement a Sustainable Drainage System, including:

- The SUDS installed in the car park of the **Wanda-Metropolitano** stadium, is unique due to its size and its specific flood abatement function. The construction of this system avoided a costly extension of the sewers in the area to manage the run-off from the car park.

- The development of the new **BBVA headquarters**, equipped with a rainwater collection, filtration and retention system. The adjoining green areas were provided with accumulation and infiltration tanks and Atlantis cells under permeable pavements.

Fig. 1 Boulevard in Valdebebas, Madrid.

Fig. 2. Rain garden in the urban park, C/ de Alfonso XIII and C/ Paraguay, Madrid.

Fig. 3. Rain garden in the urban park, C/ de Alfonso XIII and C/ de Puerto Rico, Madrid.

Fig. 4. Green roof at the Mercadona supermarket in C/ Bravo Murillo, Madrid.

Fig. 5. Permeable paving and underground pipes in Gomeznarro Park.

Fig. 6. Infiltration trenches in La Atayuela, Madrid.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.2 Optimise and reduce water consumption.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.3 Improve resilience to climate change.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

- The Arganzuela football pitch, with drainage and recycling of water into the ground.

- Gomeznarro Park, where permeable paving, underground pipes and 10 percolation tanks have been installed to eliminate run-off and erosion, and retain and manage rainwater in situ.

- The **Pez Austral building**, with the collection and recycling of rainwater from the building and plot, for subsequent recycling to maintain green areas and a vegetated façade.

- The vegetated roof at the Mercadona supermarket in C/ Bravo Murillo, where the rain that falls on this system is filtered by the vegetation, retained by the substrate and the excess drains away through the draina

- Rain garden, C/ de Alfonso XIII and C/ Paraguay. Rain gardens, also known as floodplains, are vegetated basins, which facilitate surface storage of run-off.

- The infiltration trench at La Atalayuela which captures and temporarily stores run-off through the creation of wells and ditches.

- The **Madrid Río filter drain**, which receives the run-off from the adjacent impermeable areas along the sides, which is filtered and temporarily stored in gravel or boxes, while it is transported downstream of the system by means of the drain.

In order to evaluate the effectiveness of the SUDS constructed, it is intended to put a monitoring programme in place to measure the flows managed and quality of the water that overflows in extraordinary rainfall events and is discharged into the receiving environment.

PROCEDURE

On May 31, 2006, Madrid City Council approved the By-law on the Management and Efficient Use of Water in the City of Madrid. This was a pioneering measure in that it indicated a percentage of permeable surfaces and, over the following years (2007-2014), more documents were approved and published along these lines, such as The Criteria for Sustainable Gardening in Madrid in 2007, and the Good Practices in Architecture and Urban Planning for Madrid document in 2009. It should be noted that Royal Decree 1290/2012 of September 7 began to set parameters for pollution in discharges from the sewerage system.

In 2015, the **Madrid+Natural** programme started using nature-based solutions and promoted a green infrastructure that offered multiple benefits, one of the proposed solutions being sustainable drainage. However, 2016 saw the paradigm shift in urban water management in Spain, as regulatory articles now stipulated that new organisations, industrial estates and urban developments must introduce **sustainable drainage systems**.

The Madrid City Council has long taken all of these new Spanish and European trends and regulations into account and drafted and approved the By-law on Water Management and Efficient Use of Water in 2006. Along the same lines, in November 2018, Madrid City Council published the SUDS Design Guide, in collaboration with Blue Management of the TYPSA Group. The guide was presented at the National Environment Congress in November 2018 and at the 2019 YWP Congress in Madrid, where its implementation was explained with a case study.

REGULATORY FRAMEWORK

The European framework legislation for drawing up this good practice was as follows:

- Council Directive of May 21, 1991 on urban waste water treatment.
- Framework Directive 2000/60/EC laying down the framework for Community action on water policy.
- Directive 2006/118/EC of the European Parliament and of the Council of December 12, 2006, protecting groundwater against deterioration.
- Directive 2007/60/EC of the European Parliament and of the Council of October 23, 2007, on assessing and managing flood risks.

As regards the regulatory framework in Spain, the following regulations were taken into account:
- Royal Decree Law 11/1995, of December 28, approving the rules applicable to urban waste water treatment.
- Royal Decree 1290/2012, of September 7, amending the Regulation on the Public Water Domain.

And finally, the regulations of the autonomous community mainly consist of the **By-law** on the Management and Efficient Use of Water for the City of Madrid.

ASSESSMENT

LESSONS LEARNED

The lessons learned include experience on implementing an innovative and pioneering project in the municipality of Madrid, and proposing solutions to challenges facing society that are directly influenced and underpinned by nature. Moreover, institutional and working coordination was achieved across multiple scales. Another lesson learned involved informing and raising awareness of the project's potential, generating data and evidence on its effectiveness and benefits and, finally, mobilising sources of funding.

GOVERNANCE AND TRANSFERABILITY

The Guide was presented at CONAMA 2018, in technical session ST-10 Water and City, Sustainable Urban Drainage Systems, at the end of November 2018, as a means of introducing the project to the **public**. The document had already been previewed at the 7th Water and Sustainability Conference that took place in Murcia on October 5, 2018, organised by the University of Murcia. There was also a limited edition on paper, for environmental reasons, and it was made available on the City Council's website, so that it could be consulted by technical experts and interested citizens. As regards SUDS in the municipality of Madrid, in 2008 RedSUDS was created, a **collaborative network** run by GITECO-UC, with the support of SODERCAN, which was set up with the aim of providing a forum for discussion and dissemination to make the use of SUDS more widespread in Spain.

SUSTAINABILITY

The whole initiative was aimed at promoting environmental sustainability by improving the quality of run-off water, and reducing the amount of pollutants reaching the receiving environment, among others. This promotes social and urban sustainability by **improving the quality of urban and human life**, by providing solutions to the risk of flooding, collapsed sewer system and hydraulic incapacity of the conventional sewerage network. Finally, it also promotes economic sustainability, as these low-cost stormwater drainage systems require less investment to build them. It also reduces economic losses due to possible flood damage and increases the added value of developments, due to improvements to the surrounding landscape and the provision of additional open areas.

Fig. 7. Car park at the Wanda-Metropolitano stadium.

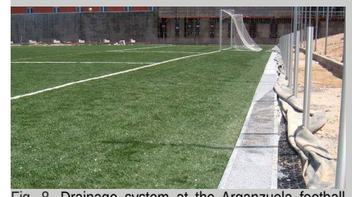


Fig. 8. Drainage system at the Arganzuela football ground.

Fig. 9. Senior Citizens' Centre in C/ Pez Austral with a green façade.

Fig. 10. New BBVA headquarters, Madrid.

Fig. 11. Filter drain at Madrid Río.

DATA

LOCATION
Sevilla, Andalusia.

ACTORS
· EMASESA (Empresa Metropolitana de Abastecimiento y Saneamiento de Aguas Sevilla S.A.).
· Aljarafesa (Aljarafe community of municipalities).

DATES
· 2016: The Strategic Plan: Sustainable Public Management was produced.
· 2019: The "50 measures for tackling the climate emergency" initiatives as part of the Strategic Plan.

AREA OF ACTION
Municipality of Seville.

SOURCES
Emasesa. Metropolitan Water Supply and Sanitation Company of Seville S.A.:
https://www.emasesa.com/conocenos/

PHASE
In the process of implementation.

SUMMARY

The Strategic Plan: Sustainable Public Management (SPM) began in 2016 and covered the period from 2017 to 2021. In 2019, the initiative "50 measures for tackling the climate emergency" was launched within the framework of the Plan.

The **Strategic Plan:** SPM had five strategic lines, namely Governance, Guarantee and reliability, Environmental focus and outreach, People-oriented approach, Participation and communication with stakeholders. The aim was to move towards sustainable public water management to meet the needs of current generations without affecting the capacity of future generations, while fostering economic and social progress and respecting the natural heritage. The Plan also contained fourteen socially, economically and environmentally sustainable perspectives.

As for the "50 measures for tackling the climate emergency", it should be noted that these measures focused on the following: reducing water abstraction, increasing the available water resources, ensuring water quality, avoiding cost overruns due to extreme events (torrential rains, heat waves, etc.) and other measures taken to combat climate change.

OVERVIEW

OBJECTIVES

The objective of the Strategic Plan was to move towards sustainable public water management, while promoting economic and social progress and respecting natural heritage. To do this, the following strategic lines of action were proposed:

- **Governance:** Design and implement sustainable public policies, agreed with the participation of the public, based on the concept of the Human Right to Water. This was carried out by means of 15 actions.

- Guarantee and reliability: Consolidate the excellence of operations and activities in order to provide a quality product and service. This is all supported by internal controls and accredited external institutions. This was carried out by means of 28 actions.

- Environmental focus and outreach: Promote the sustainable use of resources, adapt to and mitigate the effects of climate change and adapt environments affected by the activity. This was carried out by means of 18 actions.

- People-oriented approach: Increase the well-being and advancement of people in the organisation, by improving their training and professional development, promoting equal opportunities and striving to build a healthy, sustainable company. This was carried out by means of 13 actions.

- **Participation** and communication with stakeholders: Involve stakeholders in managing the organisation, consolidating relationships of trust, commitment and solidarity, in order to enhance the company's reputation and inform decision-making. This was carried out by means of 12 actions.

BACKGROUND

According to data from EMASESA, water is collected from 6 reservoirs with a total capacity of 641.16 hm3. The treatment of drinking water is carried out by three water treatment plants with **water production** of approximately 864,000 m3/day. In addition, it has installed several containers where it stores surplus drinking water which is ready for distribution into the network if necessary. The pipeline network is more than 3,000 km long.

DESCRIPTION

The initiative focused on optimising and reducing water consumption and was implemented through the Strategic Plan: Sustainable Public Management (SPM) and the initiative "50 measures for tackling the climate emergency" within the framework of the Plan.

These measures focused on **reducing water abstraction**, increasing the available water resources, ensuring water quality, avoiding cost overruns due to extreme events (torrential rains, heat waves, etc.) and other measures taken to combat climate change. Each of these is described in more detail. The following measures were proposed to reduce water abstraction:

- Improvements to the supply network. Actions were carried out to improve the efficiency of the supply network, such as renewing the network to prevent leaks. Meanwhile, an infrastructure asset management (IAM) tool was developed in collaboration with the University of Seville to predict the position of the network with the highest probability of failure.

- Control of unauthorised consumption.

- Individualisation of meters. The aim was to carry out a continuous reading of water consumption in order to reduce the time taken to act in the event of a leak, which is estimated to save up to 5% of consumption. Along these lines, a study was carried out on new technology that would allow daily readings and thus **detect leaks** more quickly.

- Communication campaigns to promote water saving such as "Bin your wipes".

- **Social tariffs** were incorporated.

Various measures to increase available water resources to avoid cost overruns due to extreme events such as torrential rains, measures against heat waves and climate change, and measures to ensure water quality were also introduced. For the latter, more advanced purification processes will be needed to treat poorer quality water, as one of the consequences of climate change is that water has more concentrated pollutants.

Fig. 1 Imagen del audiovisual "más que agua".

Fig. 2. Image from the audiovisual presentation "More than water": R&D investment of almost 4 million euros. More than 97% of meters are smart meters.

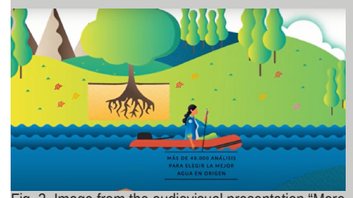


Fig. 3. Image from the audiovisual presentation "More than water": More than 48,000 analyses for the best water at source.

Fig. 4. Image from the audiovisual presentation "More than water": More than 5 years of reserves.

Fig. 5. Image from the audiovisual presentation "More than water": More than 150,000 quality analyses per year.

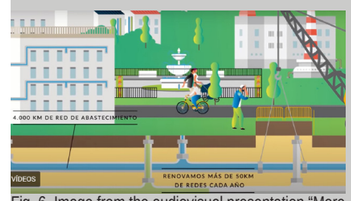


Fig. 6. Image from the audiovisual presentation "More than water": 4,000 km supply network; more than 50 km of the network is renewed every year.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.2 Optimise and reduce water consumption.

4.1 Be more energy efficient and save energy.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

RESULTS

The results achieved can be found in the **Results Report** published on EMASESA's website, which details the percentage achieved for each of the fourteen sustainable perspectives in the social, economic and environmental spheres. To date, it is worth highlighting the achievement of a new approach to governance, the definition of a communication strategy for the guidelines set for management, the review of the tariff model for more sustainable public management, the introduction of an ombudsman for users, the implementation of a flexible payment system for property owners' associations, the adaptation of elements of the distribution network to the regulations of Seville and Territorial Areas, the analysis, development and implementation of sustainable urban drainage measures, the implementation of a Source Plan for public consumption, and the definition of key jobs and a succession plan, among others.

Other results achieved are also detailed below:

- Renewal of the activated carbon filters at the Carambolo treatment plant.

- Maintenance and renewal of the pipe network has resulted in a decrease in leaks of 6% since 2015 to 12.7%.

- A **study of the drinking water treatment process** was to determine the effectiveness of chlorine dioxide dosage in minimising the formation of trihalomethane (THM).

- Dissemination of the Water Security Plans (WSP) methodology used in the different processes.

- Study of the control points to know if chlorine measurements are correct.

- Mapping of all easily accessible data, which reduces action times and speeds up decision making.

- Improvement in water quality through installing THM desorption equipment.

- Creation of the AFIS group to study the sewerage network during the rainy season.

- Increase in energy production in collection systems, distribution systems and wastewater treatment plants.

- An increase in methane production of up to 90-95% has been achieved in the co-digestion treatment plant thanks to the addition to the sludge line of organic waste from the agri-food industry (dairy products, molasses, fats), agricultural waste, the organic fraction of municipal waste, tree and garden pruning waste, fruit and vegetable waste and energy crops to produce more gas.

- Intelligent network management for data analysis and **leakage control**.

- Actions aimed at adapting to and mitigating the adverse effects of climate change through participation in different projects: "Climate Project", "Greenhouse Gas Emissions Mitigation Plan" (GHG), "Climate and Energy Action Plan" (PACES by its Spanish acronym).

- Since 2015, more than 176,016.09 tonnes of waste (wet matter) have been treated, which, in the best case scenario, was previously sent to landfill for disposal. The plan is to extend it to the rest of the treatment plants. The co-digestion of non-hazardous waste in anaerobic digestion, and the corresponding certification at the Copero, Tablada and San Jerónimo WWTPs and the Ranilla treatment plant in the testing phase, is an example of a circular economy in the urban environment that is fully integrated into this new model of improving efficiency in the use of resources, minimising waste generation and reintroducing it back into the production cycle, as a result of a **regenerative vision** based on innovation and raising awareness.

PROCEDURE

Seville is another city that is committed to **saving resources**. In the water sector, the city has taken measures to save water since the drought of the 1990s. EMASESA, Empresa Metropolitana de Abastecimiento y Saneamiento de Aguas de Sevilla S.A. is responsible for the integrated management of the water cycle in Seville and 11 neighbouring towns. In 2016, the Strategic Plan for Sustainable Public Management was created, with a time horizon that covered 2017-2021. It was aimed at moving towards efficient management, while respecting cultural and environmental heritage. In 2019, the "50 measures for tackling the climate emergency" initiative was prepared as part of the Strategic Plan.

REGULATORY FRAMEWORK

The Strategic Plan was drafted with a focus on R&D&I, the OECD Water Governance Principles and the Sustainable Development Goals when defining the six main strategic lines of action. Likewise, the Quality and Environmental Management Systems were adapted to the new requirements of the new versions of the UNE-EN ISO 9001:2015 and 14001:2015 standards, for greater stakeholder and management involvement in these systems.

ASSESSMENT

LESSONS LEARNED

One of the lessons learned was the importance of managing the Strategic Plan: SPM and **monitoring the scope** of each of the measures adopted and their actions. Another lesson learned was the evaluation of aspects related to managing water and the social, economic and environmental sustainability that can be contributed by this field.

GOVERNANCE AND TRANSFERABILITY

The Strategic Plan: Sustainable Public Management was published on a dedicated website and as part of EMASESA's website. It was also involved in various projects such as the "Climate Project", "Greenhouse Gas Emissions Mitigation Plan" (GHG), "Climate and Energy Action Plan" (PACES by its Spanish acronym). EMASESA S.A. employs more than 800 people. The organisational chart of the company has **four management divisions**: Corporate Services Division, Sustainability Division, Technical Division and Finance and Commercial Division. The projected investment effort (2016-2020) was 68% higher than the budget executed in the 2011-2015 period, with the aim of improving the service and the company¡s commitment to environmental, economic and social sustainability.

SUSTAINABILITY

The Strategic Plan focused on sustainability through fourteen perspectives. As far as economic sustainability is concerned, these included ensuring the economic-financial balance of the service, increasing transparency, communication and accountability, and consolidating the management of infrastructure assets. In the social sphere, this included a commitment to **sharing knowledge** and innovation as drivers of the future, social innovation for "more human" care, managing suppliers responsibly, valuing the human team, and integrating new technologies in day-to-day operations. As regards the environmental sphere, this included governance based on the Human Right to Water, ensuring the quality and safety of water, the sustainable use of natural resources, adaptation to and mitigation of the adverse effects of climate change and adapting the environment affected by the activity.

Fig. 7. Image from the audiovisual presentation "More than water": Board of Directors. City/town councils, organisations and citizens safeguarding the future of water.

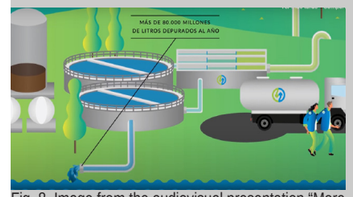


Fig. 8. Image from the audiovisual presentation "More than water": More than 80 billion litres treated per year.

Fig. 9. Image from the audiovisual presentation "More than water": A greener city, nature-based solutions

Fig. 10. Image from the audiovisual presentation "More than water": Electricity equivalent to that for 13,000 families. 0.3 kg CO2 emitted per m3 of water supplied. Fleet of electric vehicles.

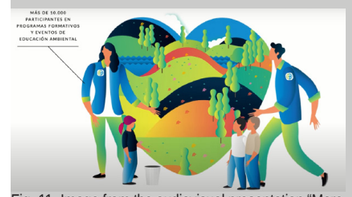


Fig. 11. Image from the audiovisual presentation "More than water": More than 10,000 participants in training programmes and at environmental education events.

SUMMARY

RECICLOS is the Return and Reward System that uses mobile technology to offer sustainable or social incentives to reward citizens for their environmental commitment by putting cans and plastic bottles in yellow bins or containers, both at home and away from home.

The project was devised by **TheCircularLab** with the aim of further evolving a recycling model for cans and plastic beverage bottles that has been widely implemented for more than twenty years in Spain through yellow containers, by applying it to mobile technology and a reward system. Recycling figures in Spain are very positive, but the non-profit organisation Ecoembes, which is promoting this project, wants to continue innovating to find new formulas that adapt to the day-to-day life of citizens and help local councils build responsible, sustainable communities.

The RECICLOS web app converts the practice of recycling into points that can be exchanged for sustainable local incentives, which can be used to support and improve the immediate environment, i.e. the neighbourhood, town/city or quality of life of its residents. These incentives take the form of discounts for using public transport, low-emission mobility, donations to NGOs and community development projects. It is the only return and **reward system** (RRS) that rewards environmentally responsible behaviour.

OVERVIEW

OBJECTIVES

RECICLOS is directly linked to the United Nations definition of smart cities, which are those that use technology as a tool to optimise the efficiency of the city and its economy, as long as it serves to improve the quality of life of citizens and helps to protect nature. The technological development of RECICLOS incorporates innovation in blockchain, artificial intelligence and image recognition. Thanks to all this technology, this tool is able to strengthen the link between citizens and containers via **mobile phones** and turn recycling into a habit that is rewarded.

BACKGROUND

According to a study by the European Parliament, the European Union produces 2.5 billion tonnes of waste per year. These figures have led organisations and companies committed to sustainability to increasingly rely on initiatives related to eco-design and waste reduction that favour circular economy cycles.

Predictions already suggest that these actions will create up to 580,000 jobs in the EU and save 600 billion euros. These figures were the starting point for Ecoembes' commitment to a strategy to promote these measures in Spain and abroad.

Motivated by this objective, TheCircularLab was created, a project that aims to further promote sustainability as a key aspect of this social function. This centre is a **pioneering project** in Europe in the field of the circular economy that came into being with the aim of bringing together all the proposals that seek to promote the best innovation strategies in the field of packaging and its subsequent recycling.

To this end, it covers all phases of the life cycle of packaging: from its conception, through eco-design, to its reintroduction into the consumer cycle through new products.

DESCRIPTION

Firstly, users need to register with the RECICLOS application, then photograph the barcodes on the cans and plastic beverage bottles they consume with their mobile phone. Finally, users need to dispose of them in their usual yellow bin or in the machines located in busy areas such as stations, airports and universities.

The **Return and Reward System** (RRS) rewards citizens' commitment to the environment by recycling, and offers them sustainable or social incentives ("green" mobility, responsible consumption, donations to NGOs). In other words, it rewards citizens who recycle while promoting responsible consumption and environmental and/or social improvement of their immediate environment.

This evolution of the recycling model not only contributes to keeping our streets clean, but also promotes increasingly sustainable mobility, the development of our neighbourhood businesses and the improvement of our community. By using RECICLOS, our commitment to recycling is transformed into a benefit for the whole community.

RESULTS

The result of RECICLOS is to have encouraged citizens to use mobile technology and green incentives to evolve the packaging recycling model that has been operating for years through yellow bins. RECICLOS has proposed an evolution of the recycling habit through recognition. Every time citizens throw their **beverage cans and bottles** in a yellow bin and record it through the RECICLOS system, they win and they help the environment win.

Based on the proximity and ease of use of yellow bins, RECICLOS has made it possible for citizens to continue to contribute to environmental protection by recycling and improving their immediate environment at the same time.

Fig. 1 Yellow container with instructions for the RECICLOS application.

DATA

LOCATION
Spain.

ACTORS
· Ecoembalajes España, S.A (ECOEMBES).
· TheCircularLab.

DATES
· 2019: Start of the project.

SOURCES
Reciclos website:
https://www.thecircularlab.com/explora/reciclos/

Fig. 2. Circular economy: Reduce, Reuse, Recycle.

Fig. 3. TheCircularLab (1).

Fig. 4. TheCircularLab (2).

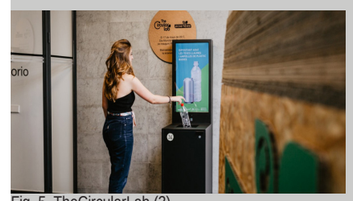


Fig. 5. TheCircularLab (3).

Fig. 6. RECICLOS QR code.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

This solution modernises existing infrastructures (yellow and blue containers), which citizens already use on a massive scale (+32% since 2015) and with which they are familiar, incorporating **mobile technology** to adapt them to new habits. Thanks to this development, users will be able to recycle even more cans and plastic beverage bottles without changing their set waste separation habits, while at the same time promoting responsible consumption habits. With the RECICLOS return and reward system, the commitment to the circular economy has been updated and furthered, making the ambitious environmental targets set out in European directives possible.

PROCEDURE

RECICLOS was first implemented in several municipalities in Catalonia as a pilot project, in collaboration with the Catalan Regional Government, and is now being used by more than one million Catalan citizens. In addition, there are machines installed at railway stations in the **Barcelona Metropolitan Area** that reward citizens who recycle there.

RECICLOS can also be found in municipalities in the Community of Madrid, Andalusia, Aragon, Murcia, La Rioja and the Balearic Islands. This pioneering recycling system is expected to reach all regions of the country in the near future, with yellow bins incorporating its technology and machines located at other transport stations and shopping and leisure centres, thereby making it easier to recycle beverage cans and plastic bottles used inside and outside the home.

REGULATORY FRAMEWORK

The sustainability of the planet needs a transition from the old linear economy, based on ‘use and throw away’, to a more rational concept of ‘reduce, reuse and recycle’: the circular economy. This approach, aligned with economic growth without relegating the idea of being environmentally friendly, advocates transforming waste into resources, based on innovation.

The RECICLOS project is an initiative of TheCircularLab, which is the first open innovation centre on the circular economy in Europe aiming to promote the best lines of innovation in the field of packaging and its subsequent recycling. Founded in May 2017 in Logroño, it aims to promote the best lines of innovation in the field of packaging and its subsequent recycling.TheCircularLab studies, devises, tests and applies the best practices to all phases of the life cycle of packaging, from its design to its reintroduction into the consumer cycle through new products, in a real environment and in collaboration with companies, public administrations and citizens. Municipalities in La Rioja act as a testing ground for research into concepts such as the packaging of the future, intelligent waste management in smart cities, responsible consumption and the development of new techniques and processes that can improve recycling for citizens.

ASSESSMENT

LESSONS LEARNED

Citizens are a key part of the recycling process, because they are the ones who initiate the cycle by putting their waste in the right container. A continuous, efficient mechanism has been put in place through this project to get people involved in recycling, thereby optimising selective collection and increasing social awareness of the importance of separating our waste properly for the environment.

Mobile technology can be a great tool allied to many initiatives aimed at a better environmental commitment, as has been seen in this case, since it has made a return and reward system possible through incentives.

GOVERNANCE AND TRANSFERABILITY

This project can be inspiring when devising, incubating and accelerating entrepreneurship programmes that pursue **innovative solutions** aimed at facilitating collaborative work in creating new products and services related to the circular economy. These are new projects or “circular” business ideas that can be supported and developed, provided that their technical and economic feasibility is verified beforehand.

SUSTAINABILITY

The circular economy is an economic concept that is interrelated with **sustainability** and aimed at keeping the value of products, materials and resources in the economy for as long as possible and minimising the generation of waste. Therefore, the circular economy is a positive and continuous development cycle that protects and enhances natural capital, optimises resource efficiency and minimises system risks by managing finite reserves and renewable flows tightly. The role of recycling in the circular economy model is extremely important in helping to mitigate the effects of climate change. Thanks to recycling processes, the former linear model is giving way to a never-ending circle based on produce, use and recycle. Waste recovered through recycling is reintroduced into the production system, thereby helping to promote economic development that is more balanced, sustainable and environmentally friendly. In Spain, the Ministry for Ecological Transition and the Demographic Challenge (MITECO by its Spanish acronym) has created a Sub-Directorate for the Circular Economy, previously known simply as Waste, the main objective of which is to transfer from a linear to a circular model.

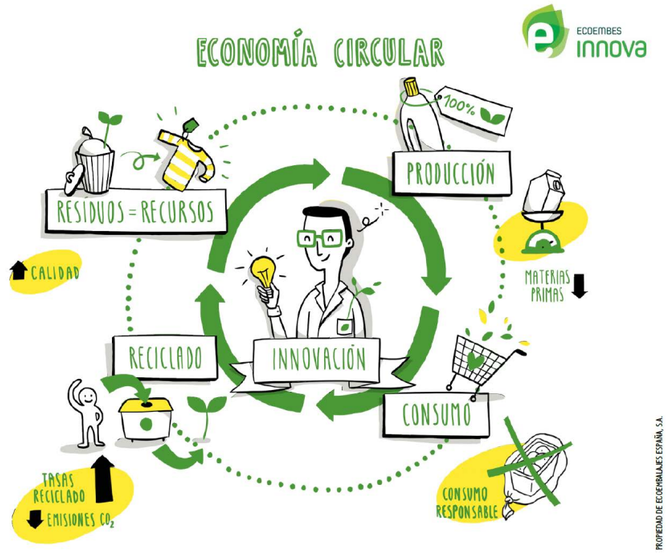


Fig. 12. Circular economy of consumption.

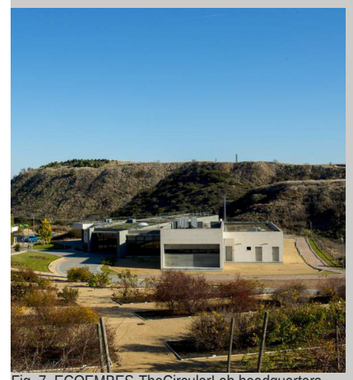


Fig. 7. ECOEMBES-TheCircularLab headquarters.

Fig. 8. Containers depending on the type of waste.

Fig. 9. Recycle and win prizes.

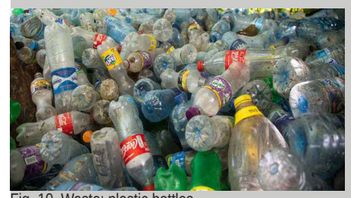


Fig. 10. Waste: plastic bottles.

Fig. 11. Waste: aluminium cans.

DATA

LOCATION
Castilfrío de la Sierra, Soria, Castile and León.

ACTORS
· Castilfrío de la Sierra Town Council.
· Red Electrica de España.
· Megara Energia.
· Caja Rural de Soria.

DATES
· 2019 - present.

AREA OF ACTION
The municipality.

SOURCES
Website of Red Eléctrica de España:
https://www.ree.es/es/sala-de-prensa/actualidad/nota-de-prensa/2021/02/se-constituye-la-primera-comunidad-energetica

PHASE
In the process of implementation.

SUMMARY

The first rural energy community in Spain has been set up in the municipality of **Castilfrío de la Sierra in Soria**. It is a pilot project based on collective self-consumption and citizen participation that will cover part of the municipality's electricity demand and help to considerably reduce carbon emissions and the expenditure on energy of the town and its inhabitants. The Megara Energía cooperative, the town council and Caja Rural de Soria are working together on this initiative under the name **Hacendera Solar**, and it is planned to be implemented in other towns in the Tierras Altas community of municipalities so that it can serve as a point of reference for developing rural areas.

Renewable Energy Communities are defined by legislation as "legal entities based on open, voluntary participation, that are autonomous and effectively controlled by partners or members that are located in the vicinity of renewable energy projects and whose primary purpose is to provide environmental, economic and social benefits to their partners or members or to the local areas where they operate, rather than financial gain". They can carry out many activities: producing, consuming, storing, sharing and selling energy.

OVERVIEW

OBJECTIVES

The objectives of the project include:

- Generating energy from renewable sources.

- Reducing carbon emissions and the expenditure on energy by the town and its inhabitants.

- Understanding the operating patterns of this type of community in order to be able to implement the model in other areas.

- Encouraging self-consumption by enabling consumers to generate and manage their own energy and manage their own energy demand.

- Providing electric vehicle charging services and other energy services.

- Providing citizens with fair, easy access to local renewable energy resources and other energy or mobility services, and being able to benefit from investments in them.

- Creating investment opportunities for local citizens and businesses, particularly in rural areas.

BACKGROUND

According to estimates, the annual consumption of Castilfrío de la Sierra is 17,727 kilowatts per hour, so it is expected to **achieve savings** of 60%, and even achieve self-consumption of 76% and a reduction in annual municipal spending on energy of 2,350 euros per year.

DESCRIPTION

Hacendera Solar de Castilfrío de la Sierra is a rural energy community, the first in Spain that aims to cover part of the municipality's electricity demand and help to **reduce carbon emissions** and the expenditure on energy of the town and its inhabitants.

It has two solar photovoltaic plants of 7.36 and 5.5 kWp for self-consumption that have been installed on the roofs of two municipal buildings, namely the social centre and the laundry, which acts as a water pumping station. This installation, which is already in operation, supplies electricity to the town hall, the social centre, the doctor's surgery, a refurbished house and the laundry, for pumping water, thereby providing a saving in **running costs** for the municipal coffers of around 60% of the electricity bill.

Furthermore, as a pilot project, its implementation will make it possible to find out the consumption and demand patterns of this type of community, which is not yet widely implemented but which has great potential as a tool for energy transition. It is estimated that there are 5,000 towns which could implement the model that will be implemented in Castilfrío de la Sierra.

RESULTS

At this early stage of implementation, the **municipal buildings** will develop these systems, the aim being that, little by little, residents will be able to install photovoltaic energy in their own homes. The idea is to use the money that will be saved on energy in the town hall to help residents install solar panels on their roofs and become self-sufficient in the future.

The municipality hopes to use this project to reduce its carbon footprint by 6.98 tonnes of CO_2 per year, reduce energy expenditure by 13.64 megawatt hours (MWh) per year in its first phase (60.27% annual savings), create a model that can be extrapolated to other towns in the region and design an energy management model that covers electricity demand in a dynamic way and in line with the needs of this type of town.

The two installations have been in operation since mid-November (the months of lowest radiation), achieving 100% self-consumption in the water pumping station and 84% in the social centre.

The surpluses fed into the grid have been recompensed under the simplified remuneration scheme, further reducing the cost of the electricity bill. A slow charging point for electric vehicles has also been installed at the social centre.

PROCEDURE

The project is being promoted by **Grupo Red Eléctrica** with the participation of the Megara Energía cooperative, the town council and Caja Rural de Soria, together with a group of inhabitants who are "active, interested in the initiative, and involved in developing and expanding it". It will be managed by Megara Energía with the intention of being implemented on a large scale in the town.

Funding is provided by Red Eléctrica's social responsibility department, which also wants to carry out four other similar projects in Spain. The project involves an investment of 30,000 euros in a municipality with an annual budget of 130,000 euros and 34 inhabitants. This investment will also make it possible to install a charging point for electric cars.

REGULATORY FRAMEWORK

- Energy transition legislation.

-European legislation introduces two concepts of what is understood as an energy community: Citizen Energy Community, CEC (EU Directive 2019/994 on common rules for the **internal electricity market**, Article 16) and (2) Renewable Energy Community, REC (EU Directive 2018/2001, promoting the use of energy from renewable sources, Article 22).

Fig. 1. Castilfrío de la Sierra, Soria.

Fig. 2. View of Castilfrío de la Sierra, Soria.

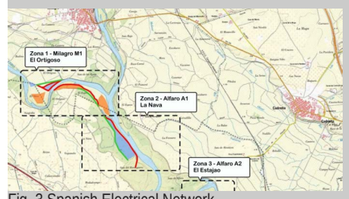


Fig. 3.Spanish Electrical Network.

Comunidades energéticas

Fig. 4. Energy communities.

Fig. 5. Megara ENERGÍA.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.3 Promote material cycles.

4.2 Optimise and reduce water consumption.

4.4 Reduce waste and promote its recycling.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

- The current Spanish legal framework that applies is Royal Decree-Law 23/2020 of June 23, approving measures in the field of energy and other areas for **economic revival**, by amending several articles of Law 24/2013 of December 26, on the electricity sector.

ASSESSMENT

LESSONS LEARNED

Renewable energies and their widespread use are an opportunity for sustainable development and an instrument for achieving the necessary energy transition. Their impact on the towns of emptying Spain is significant at environmental, social and economic levels.

As well as providing an energy **supply solution**, this type of initiative is a way of linking and uniting neighbours in a common project, a shared purpose.

GOVERNANCE AND TRANSFERABILITY

Hacendera Solar de Castilfrío de la Sierra is a social innovation prototype that Red Eléctrica is hoping to extend to **other towns** to improve the response capabilities of rural areas to climate change and contribute to achieving the Sustainable Development Goals.

Megara Energía is currently collaborating on replicating the project in the 16 municipalities of the Tierras Altas community of municipalities. , It is estimated that there are 5,000 towns which could implement the Castilfrío de la Sierra model. If this project concludes satisfactorily, it will act as a stimulus for other municipalities that want to take up this initiative, in the knowledge that it not only helps to create resources from energy savings but can also be used as a collaborative link between these municipalities.

SUSTAINABILITY

Hacendera Solar de Castilfrío de la Sierra is a social innovation prototype that it is hoped will be extended to other towns to improve the response capabilities of rural areas to climate change and contribute to achieving the Sustainable Development Goals. Megara Energía is collaborating on replicating the project in the 16 municipalities of the Tierras Altas community of municipalities.

The environmental benefits are significant, with a reduction in energy consumed, an increase in distributed renewable energy and a reduction in fossil fuels used, in short, using “clean technologies” that will produce heat and/or electricity without using fossil fuels and pollutants.

From an economic point of view, this type of action is aimed at reducing energy costs and energy dependency – energy efficiency measures reduce energy demand, and the use of renewable energies consequently reduces the demand for fossil fuels. At the same time, additional value is added at a local level, by offering the possibility of promoting new investments in the community.

This formula for energy self-consumption also makes the municipalities less dependent on the large infrastructures that cross the natural environment and, indirectly, **helps to protect the landscape** and conserve the environment. In short: community energy-saving projects of this kind could be a great approach for our smaller municipalities.

Fig. 6. 400 kV and 200 kV high voltage power plants, substations and lines in Spain.

Fig. 7. Photograph of a building with photovoltaic panels in Castilfrío de la Sierra, Soria.

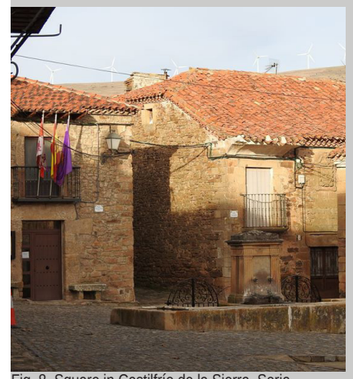


Fig. 8. Square in Castilfrío de la Sierra, Soria.

Fig. 9. Meeting at which the start-up of Hacedera Solar was agreed.

Fig. 10. Photovoltaic panels on a roof.

Fig. 11. Photovoltaic panels in rural areas.

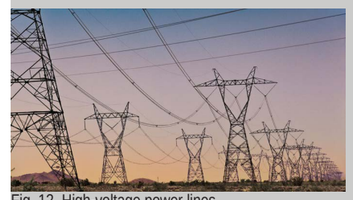


Fig. 12. High-voltage power lines.

DATA

LOCATION

919 municipalities in Castilla-La Mancha.

ACTORS

· Regional Government of Castilla-La Mancha.
· Castilla-La Mancha Circular Economy Coordination Committee.
· Managers of municipal waste treatment centres.
· Extended Producer Responsibility Schemes (EPRS)
· Universities, research centres: UCLM (International Business School and Castilla-La Mancha Regional Business Confederation).
· Citizens.

DATES

· 2015: the "Circular Economy" Action Plan was drawn up.
· November 2019: Law 7/2019 on the Castilla-La Mancha Circular Economy was approved.
· January 2020: The Castilla-La Mancha Circular Economy Coordination Committee was created.
· July - September 2020: Citizen participation process.
· March 2021: The Circular Economy Action Plan 2021-2025 was published.

AREA OF ACTION

Castilla-La Mancha, 79,463 km2.

SOURCES

Castilla-La Mancha Circular Economy:
https://economia-circular.castillalamancha.es/

PHASE

In the implementation phase

SUMMARY

The Circular Economy Strategy in Castilla-La Mancha covers the entire region, a total of 919 municipalities with a surface area of 79,463 km2. The Castilla-La Mancha government attempted to project a **new future** for its towns, cities and citizens.

After identifying a number of problems associated with this linear, "extract-produce" model, it decided to create a Plan to sustainably manage resources and promote the circular economy by adopting a legal framework to make the community a more sustainable environment. As a result, in 2019, the Government of Castilla-La Mancha passed Law 7/2019 on the Circular Economy of Castilla-La Mancha. The whole procedure to design a plan that would make Castilla-La Mancha a **competitive, resilient and sustainable** region began at that point. Two years later, in March 2021, the Circular Economy Strategy was approved by Decree 17/2021 and the "Circular Economy Action Plan 2021-2025" was published.

OVERVIEW

OBJECTIVES

This project tackles the challenges of moving towards a circular model that will create **economic, environmental and social value** for the region. With the aim of ensuring the sustainable management of resources and promoting the circular economy, the objectives set were as follows:

· Protect the environment and ensure people's health by reducing the use of non-renewable natural resources.
· Encourage product life-cycle analyses.
· Promote the effective implementation of the waste hierarchy principle by encouraging reuse, increasing recycling and promoting traceability of waste.
· Promote guidelines that increase innovation and the overall efficiency of production processes by adopting measures such as the implementation of environmental management systems.
· Promote innovative forms of sustainable and responsible consumption, including sustainable products and services, as well as the use of digital infrastructures and services.
· Publicise the importance of moving towards a circular economy, promoting the transparency of processes, and raising public awareness and consciousness.
· Promote the use of common, transparent, accessible indicators.
· Create and consolidate sectoral policies that favour the transition to a circular economy.

In addition to these more general objectives, a number of specific targets have been **set for 2030**, such as:

· Reduce the generation of domestic and industrial waste by 15% compared to that generated in 2010.
· Increase reuse and preparation for reuse to 10% of municipal waste generated.
· Reduce the generation of food waste in the entire food chain (household, retail consumption, production and supply chains) by 50% by 2020.
· Increase water reuse by 10% compared to 2020.
· Increase R&D&I spending on the circular economy by 25% compared to 2018 spending.
· Increase the use of renewable energies by 30% in the agri-food sector, 30% in the industrial sector and 20% in the tourism sector, compared to 2010.

BACKGROUND

As already outlined, the government of Castilla-La Mancha was driven by the problems of the current consumption model characterised by a linear consumption path based on a **unidirectional relationship** of "extract, produce, consume and dispose". This model seriously compromises air quality, water availability, soil capacity, creates pollution and accumulates waste in landfills that increase emissions, while exploiting renewable resources beyond the renewal rate, which will result in negative consequences on health, the environment and the economy. Therefore, the starting point is the conviction that this current production and consumption model is detrimental to the community's ecosystem, health and economy.

The data reflect a dangerous scenario, with 18,732.8 kilotonnes of CO2 emissions in 2018, 3,105,701.19 tonnes of total waste deposited in landfills, 921,070.91 tonnes of household waste, 13,494.29 tonnes of WEEE waste, etc. For all these reasons, **the economic model needs changing**.

DESCRIPTION

The circular economy is a positive and continuous development cycle that preserves and enhances natural capital, optimises resource efficiency and minimises system risks by managing finite reserves and renewable flows. It is a more responsible, competitive model with less dependence on natural resources and is based on a systemic, integrated vision of the entire value chain. In short, the circular economy proposed for Castilla-La Mancha is an **economic model** aimed at producing goods and services in a sustainable way, minimising the use of natural resources (raw materials, water and energy) and reducing the generation of waste.

The most characteristic features of the circular model are: waste becomes a resource, second use, repair, recycling, recovery, economy of functionality and energy from renewable sources.

The Circular Economy Strategy, approved on March 2, 2021, defines the following lines of action: governance; education, raising awareness and dissemination; competitiveness, research, development and innovation; production, goods and services; consumption and waste management. Lines of work have been identified for each line of action, which in turn define a number of measures for each line of work.

Fig. 1 Castilla-La Mancha Circular Strategy 2030.

Fig. 2. Cover of the Castilla-La Mancha Circular Economy Strategy.

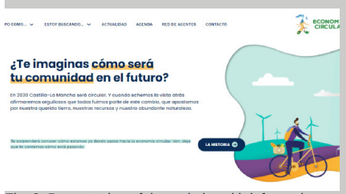


Fig. 3. Presentation of the website with information on the Strategy.

ECONOMÍA CIRCULAR

Fig. 4. Castilla-La Mancha Circular Economy Strategy logo.

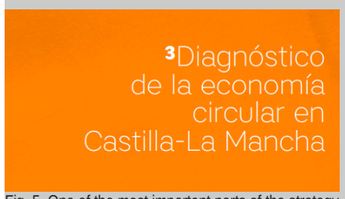


Fig. 5. One of the most important parts of the strategy - the assessment.

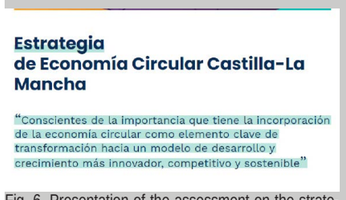


Fig. 6. Presentation of the assessment on the strategy's website.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.4 Reduce waste and promote its recycling.

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

In order to achieve the Strategy's objectives, "Action Plans" will be drawn up for the predefined periods "2021-2025" and "2026-2030", which will include proposals for action. The results obtained will be studied by means of a series of indicators, and the new Action Plans will be updated. To this end, a range of financial aid will be made available to achieve the proposed objectives and for the business fabric.

RESULTS

Given the recent implementation of the Circular Economy initiative in Castilla-La Mancha, the most remarkable results achieved are the elaboration and approval of the Circular Economy Strategy on March 2, 2021 and the publication of the Castilla-La Mancha Circular Economy Action Plan on March 18, 2021.

In addition to the proposed actions and projects, the latter promoted a **dissemination and awareness-raising** campaign, holding several events such as the Workshop on Treating CDW containing asbestos and gypsum, the first Hackathon on the circular economy in Castilla-La Mancha, the Supercircular 2021 awards ceremony, various workshops on managing construction and demolition waste, etc. It is worth mentioning the launch of the Chair of Circular Economy in conjunction with the University of Castilla-La Mancha.

PROCEDURE

On November 29, 2019, Law 7/2019 on the Circular Economy of Castilla-La Mancha was approved, which set up a Coordination and Collaboration Committee, made up of the actors involved in carrying out the principles set out in the aforementioned law, with the aim of making progress on implementing the circular economy model in Castilla-La Mancha.

Accordingly, on January 31, 2020, Order 18/2020 of the Regional Ministry for Sustainable Development created and set out the composition of the Castilla-La Mancha Circular Economy **Coordination Committee**, which was formally constituted on May 27, 2020. This Committee is in charge of coordinating the Strategy and is made up of four working groups responsible for analysing and defining actions (governance, resources, competitiveness and innovation, and territorial synergy).

The draft Strategy was presented to the Committee on June 23rd, 2020. The Governing Council approved Decree 17/2021 of March 2, 2021, approving the Circular Economy Strategy of Castilla-La Mancha, which came into force 20 days after its publication in the Official Gazette of Castilla-La Mancha (DOCM).

Finally, on March 18, 2021, the first **Circular Economy Action Plan** 2021-2025 was published, which will implement the strategy, with a breakdown of actions framed both in the area of competence, which is responsible for promoting and implementing it, and in the areas of action, lines of action and measures defined in the Strategy.

REGULATORY FRAMEWORK

The regulatory framework in force in Castilla-La Mancha under which the Circular Economy Strategy of Castilla-La Mancha was drafted was:

- Law 7/2019 on the Castilla-La Mancha Circular Economy, which was approved on November 29, 2019.

- Order 18/2020 of the Regional Ministry for Sustainable Development.

- Law 21/2013 of December 9, 2013, on environmental assessment, and its implementing legislation.

- Decree 17/2021 of March 2, approving the Castilla-La Mancha Circular Economy Strategy.

ASSESSMENT

LESSONS LEARNED

The main lessons learned can be summarised as follows:

- Tackling the challenges of moving towards a circular model that will create economic, environmental and social value. A more responsible, competitive model with less dependence on natural resources and is based on a systemic, integrated vision of the entire value chain.

- Defining new **instruments and policies** for change and implementing innovative and sustainable production and consumption business models, making use of technology.

- Encouraging all citizens to learn new responsible consumption habits.

GOVERNANCE AND TRANSFERABILITY

Castilla-La Mancha's Circular Economy strategy is a **pioneering** initiative in Spain. It could become a reference model for many cities that share the same desire to transform and move towards sustainable resource management and a circular economy.

In addition, the official Castilla-La Mancha website has created a section devoted to information on the Circular Economy in Castilla-La Mancha, where both the Action Plan and the Strategy can be found, along with much more information on this new economic model. There is also an agenda section which lists the various events, courses and conferences of interest for keeping up to date with the circular economy, as well as a news section where all the latest news on the strategy can be found. With regard to financial support from the European Union, it should be noted that the European Commission has devised a Green Deal Investment Plan to mobilise public and private investment through the EU's financial instruments. It will be an opportunity and a priority for Castilla-La Mancha to access European funds for the transition.

SUSTAINABILITY

This Plan can be understood in terms of sustainability from three perspectives: Economic sustainability: Measures will be taken to **reduce product and service, material, logistical, production and operating costs,** to create new jobs through new business models, and to develop technologies and foster entrepreneurship in response to current and future challenges.

Environmental sustainability: The circular economy model will **reduce CO2 emissions**, raw materials and waste, and renewable energies will be used to operate the system, while preserving natural capital.

Social sustainability: From the point of view of social sustainability, **public awareness** of the environment will be raised, along with the repercussions of caring for and conserving the environment on the quality of life and the health of the territory.

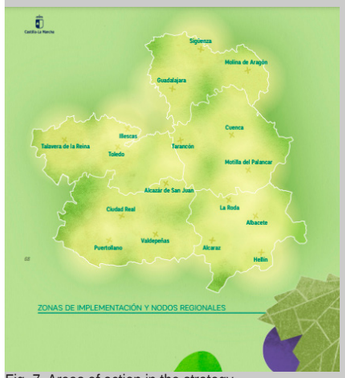


Fig. 7. Areas of action in the strategy.

Fig. 8. Graphic summary of a linear economic model presented in the strategy document.

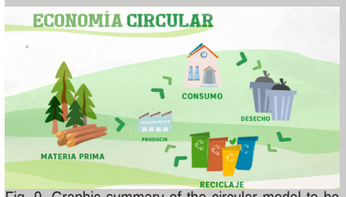


Fig. 9. Graphic summary of the circular model to be implemented in Castilla-La Mancha.

Fig. 10. Characteristics of a circular economic model, presented on the strategy's own website.

Fig. 11. Circular tourism projects in Castilla-La Mancha.

DATA

LOCATION
Sangüesa, Navarre, Spain.

ACTORS
· EAFRD (European Agricultural Fund for Rural Development).
· Government of Navarre.
· Asociación Josenea (Lumbier).
· Public University of Navarre.

DATES
· 2018: Start of the project.
· 2020: End of the project.

AREA OF ACTION
Areas of Sangüesa and Irati.

BUDGET
178.166,12 euros.

SOURCES
Josenea website:
https://www.josenea.bio/dicen-de-nosotros/

PHASE
Implemented.

SUMMARY

The aim of the Circular Bioeconomy for Organic Waste Project of the Community of Municipalities of Sangüesa in Navarre was to obtain compost made from organic waste from establishments in the area for use in ecological agriculture, in response to the different challenges that society must face today.

This **circular bioeconomy** project was promoted by Asociación Josenea, a promoter of employment for people with difficulties in accessing the labour market.

Waste was collected by the association's workers and treated in a recycling plant in Lumbier until it matured and became useful for agriculture.

The Public University of Navarre was responsible for quality control and for determining the versatility of the compost obtained for different uses. Research was carried out in the university's laboratories to determine which quantities were most suitable, depending on the proportion of their components. This was a pilot project which, once perfected, is intended to be replicated in other areas of Navarre and Spain.

OVERVIEW

OBJECTIVES

The main objectives of this project were as follows:

- To develop an innovative waste management model on a local scale with social implications in the Sangüesa region, which would serve as a benchmark for teaching, dissemination and replication in other regions of Navarre and Spain.

- To improve the circularity of bio-waste in the Sangüesa region, helping it to meet the legal objectives in the circular economy legislative package.

- To help the Josenea **social and labour integration** centre expand its range of environmental services, creating rural employment that cannot be relocated, sequestering carbon in the agricultural soils of the Bordablanca farm and improving soil fertility, as well as contributing to mitigating climate change, reducing the consumption of external fertilisers and strengthening its image as a distinct brand.

BACKGROUND

The waste management model based on the linear economy has been shown to be an obsolete solution that needs to evolve in line with the new needs and objectives of sustainability and in compliance with European regulations. Another difficulty in the area was the existence **of depleted soils** lacking in organic matter, which was becoming more problematic with each passing year and therefore represented an opportunity for the project.

DESCRIPTION

This local circular bioeconomy project for organic waste with a social and training dimension arose in response to a number of needs identified in the Sangüesa region. This project was proposed as a test to evaluate a novel local **organic waste** management model, consisting of collecting, recycling and on-site composting of local bio-waste, while at the same time acting as a laboratory for researching, providing training on and disseminating the organic waste bioeconomy model on a local scale.

Consequently, the aim was to put an end to the obsolete linear management model for all of the organic waste that was being collected and sent to landfills, thereby losing the opportunity to extract all of the value that this waste still had, as in addition to contributing to climate change, it did not comply with European regulations on the circular economy.

This project was based on combining ecology and the circular economy and consisted of several actions such as: collecting organic waste; treating it; experimenting with alternatives, **uses of compost** and its long-term effect on the climate, for which the work of the Public University of Navarre was particularly important; professionally training personnel to implement it, in which the participation of the Josenea labour association came into play; and disseminating the model on a regional and national scale. The activities carried out under this project included the following actions:

- Action 1: Defining, developing and implementing a pilot test of a system for collecting **municipal biowaste** and transporting it to Lumbier, which provided a service to part of the population of Lumbier and to the large waste generators in Sangüesa.

- Action 2: Defining, developing and implementing a pilot test in Lumbier for composting municipal biowaste from Action 1, to transform it into organic fertilisers.

- Action 3: Experimental research on the model: on different transformation alternatives, on the uses of compost and its effects on plant and soil in the short and long term and analysis of the overall results of the management model.

- Action 4: Carrying out training courses aimed at professionally preparing personnel to implement the biowaste management model on a regional scale.

- Action 5: Carrying out dissemination activities aimed at **promoting** and disseminating this regional biowaste management model on a national scale.

During the waste management process, the Public University of Navarre was responsible for quality control and for determining the versatility of the compost obtained for different uses. Research was carried out in the university's laboratories to determine which quantities were most suitable, depending on the proportion of their components.

Fig. 1. Circular Bioeconomy Project, Josenea's Bordablanca farm.

Fig. 2. Image of composted products.

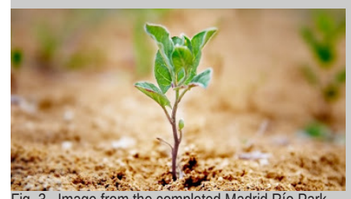


Fig. 3. Image from the completed Madrid Río Park.

Fig. 4. Image of composting services.

Fig. 5. Group of workers in the field.

Fig. 6. Harvesting chamomile on the Josenea estate.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.4 Reduce waste and promote its recycling.

4.1 Be more energy efficient and save energy.

4.3 Promote material cycles.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

RESULTS

The main results of this project included the **knowledge** compiled on the feasibility of fertilisers for use in organic farming on the Josenea estate in the short term and the effect on the soil of applying the same fertilisers in the long term.

A waste management system was implemented in the region to carry out the project, which included a new model for collecting, treating and using local biowaste in situ as organic fertiliser at the Josenea centre, applying the philosophy underlying the scale model mentioned in the 2017-2027 Waste Plan for Navarre, but which had not been carried out at the time.

Likewise, new organic and ecological fertilisers were analysed, encouraging the diversification and specialisation of the market and its products, professional training was provided on managing the waste model at scale (12 people were hired) at the Josenea integration centre, and more than 240 people were trained via modular courses on generating, treating and managing waste.

Furthermore, the local waste management **model** and its contribution to ensuring that the Sangüesa region, which was part of the pilot project, met the current legal targets for reusing and recycling municipal waste as defined by the circular economy policies was disseminated to potentially interested actors in other regions and other social and labour centres.

The project and the decentralised management model were also publicised at a regional, provincial and national level in various ways. More than 250 people visited the facilities, and the project was disseminated via networks, radio, press, information videos on the internet and webinars, in which people from other continents took part. In order to achieve all these results, local jobs were created, together with a holistic analysis of the new management model at scale, from a **technical, social and economic point of view.**

PROCEDURE

The implementation period of this pilot project was in line with the Government of Navarre's Rural Development Programme 2014-2020 and it could be replicated in other areas of Navarre and Spain, given its good results. Consequently, the project started in June 2018 and ended in January 2020. Other dates of interest were October 2020, when the project was selected as a good practice by the European Network for Rural Development, and December 2018, when it was declared an investment of regional interest (Official Gazette of Navarre).

REGULATORY FRAMEWORK

The framework was taken from the European Regulation on the Circular Economy. Furthermore, these initiatives allow any local council to make progress on meeting the environmental and social objectives of the different legislations (Circular Economy legislative package, SDGs, Local Agenda 21), which will be further strengthened by the European Green Deal launched by the EU.

ASSESSMENT

LESSONS LEARNED

Many lessons of a cross-cutting nature were learned, linked to the **circular economy**, environmental care, social integration and economic benefits.

Similarly, there may be opportunities for other social and labour integration companies that want to diversify their activity. It provides training in this field for newly qualified technicians or those who want to retrain.

Lastly, the project increased public confidence and involvement in managing their own organic waste.

It also contributed towards improving the perception and confidence of technicians and policy makers in decentralised waste management systems.

GOVERNANCE AND TRANSFERABILITY

This project had a tangible impact on **several levels**. Similar projects are currently being planned or implemented in various parts of Spain (Galicia, the Balearic and Canary Islands...). The project, which was submitted to MITECO, the European Commission and even to a government delegation from the Chinese government, undoubtedly contributed to making administrations more receptive to exploring the possibilities offered by this type of simple, small-scale installation.

It was a successful initiative that could be perfectly replicated in other regions as it has a strong integrating component. Leaders and technicians from local councils and rural development agents from all over Spain were given the opportunity to get to know this initiative in depth in order to adapt and replicate it in their environment.

It should be noted that the "Bioeconomy" project, submitted by the Public University of Navarre and the Asociación Josenea, was **awarded a prize** at the 11th José Ignacio Sanz Arbizu Awards for Good Practices in Sustainable Local Development. This award is promoted by the Department of Rural Development and the Environment and recognises the best practices in Navarre in the fields of housing and community development, urban and regional development, and sustainable management, giving priority to projects based on partnership, innovation and transferability.

The non-profit social and labour integration association (Josenea), a renowned company in the social sector, together with the Public University of Navarre (UPNA by its Spanish acronym) and two micro-companies (Luar Ingurumena and Maestro Compostador) worked closely together on this practice. 17 local entities integrated into the Sangüesa Community of Municipalities were also involved, along with the Navarre Waste Consortium and the Government of Navarre.

SUSTAINABILITY

All of the actions reflected in this project took the three pillars of sustainability into account: environmental (which led the project), social and economic factors.

The process has diversified Josenea's economic activity and created three new jobs. At the same time, the application of **organic fertilisers** is regenerating and protecting the soil on the farm. This is also contributing to mitigating climate change by reducing GHG emissions through carbon sequestration.

Waste management in the Lumbier area has improved and made a decisive contribution to meeting the objectives of the European Waste Framework Directive, and reducing the costs and environmental impact of transporting waste to remote centralised facilities.

Fig. 7. Image of the Circular Economy pilot project.

Fig. 8. Image of Josenea Bio.

Fig. 9. Image of Asociación Josenea.

Fig. 10. Image of the Circular Bioeconomy project.

Fig. 11. Image of Councillor Gómez visiting Lumbier at the Josenea Centre.

MOBILITY AND TRANSPORT

5 STRATEGIC GOAL ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

SPECIFIC GOALS

5.1. PROMOTE CITIES OF PROXIMITY.
- Vertical transportation plan in Santander.
- Superblocks in Barcelona.

5.2. PROMOTE SUSTAINABLE MEANS OF TRANSPORT.
- Open streets in Logroño.
- Pontevedra Ágora of Pontevedra Provinvial Council.

SUMMARY

The Vertical Transportation Plan in the city of Santander is a project that proposed a series of measures to reduce the need for mobility in private vehicles and optimise the conditions for public, pedestrian and bicycle transport. Once the problems of each specific area had been analysed, actions were carried out to bring the city together in such a way as to achieve a much more pedestrian-friendly city, mapping out an urban pedestrian scheme, breaking down existing barriers and contributing to a change in the modal distribution of mobility in the city.

The proposed measures included the **Public Transport Development Plan** (Sustainable Mobility Plan - SMP), the main objective of which was to make public transport the preferred mode by implementing a light rail network, optimising the urban bus network and creating a series of park and ride facilities at the main entrances to the city. The plan was also based on developing sectoral plans aimed at pedestrians (safe school routes, vertical transportation, etc.) and bicycles (more than 90 kilometres of cycle lanes, dedicated parking, etc.).

The plan was complemented by a number of other measures and a Publicity and Monitoring Plan to ensure that all of the planned solutions were implemented properly.

OVERVIEW

OBJECTIVES

The main objective of the SMP was to **improve mobility** in general and, in particular, to reduce the need to use private vehicles and optimise the mobility conditions for public transport, walking and cycling.

This main objective was split into two secondary objectives:

To ensure people's right to mobility in the best conditions and to improve the quality of life in the city by promoting the least polluting modes of transport and consequently reducing the levels of environmental pollution caused by the transport system. To meet these objectives, the city's north-south **pedestrian connectivity** needs to be structured, which is the objective of the vertical transportation plan.

BACKGROUND

Santander is a municipality with a very complicated orography in which north-south pedestrian connectivity was very difficult. This was made clear in the drafting of the city's Sustainable Mobility Plan (PMS) drawn up in 2010 and, for this reason, a vertical transportation plan was included in the plan to promote non-motorised travel, which aims to implement a series of specific actions to create continuous axes to connect the different areas of the city in a pedestrian-friendly manner for everyone. At that time, 9 different routes were proposed and specific studies were carried out to improve vertical transportation mobility in different parts of the city. That initial idea, subsequent studies and the evolution of the city over the last 8 years resulted in the vertical transportation project that we are presenting here.

DESCRIPTION

The **Santander Vertical Transportation Plan** is one of four major actions included in the Santander Sustainable Mobility Plan 2010-2013: (1) the Municipal Accessibility Plan, (2) pedestrianisation measures, (3) traffic calming and (4) school routes and a Development Plan to promote the use of bicycles.

The aim of this action is to improve the existing pedestrian routes in the same way it was done for the road network in the General Development Plan. Due to its peculiar orography, mobility in Santander is more difficult in the north-south direction than in the east-west direction.

Therefore, in this set of proposals we have sought not only to improve access to specific low accessibility areas but, more generally, to create continuous routes that connect the different areas of the city **in a pedestrian-friendly** way for everyone. The Vertical Transportation Plan includes 9 routes to promote non-motorised travel:

Route 1: University Campus-Carmelitas: this consists of a moving walkway plus lift in La Teja-Finca de Jado park and escalators in Prado San Roque to Santa Teresa de Jesús, to provide the area with the appropriate infrastructure to overcome the pre-existing orographic difficulties.

Route 2: slope from Juan Blanco–Calle Burgos: this consists of a lift plus a moving walkway and escalators up to Juan XXIII and Calle Florida. To make the central area of the city more permeable, a corridor has been created to connect Avenida de los Castros with the central area of Santander's commercial area on Calle Burgos.

Route 3: Marqués de Valdecilla University Hospital-Residencia Cantabria: a moving walkway that overcomes the orographic difficulties of the area and **improves accessibility** to the hospital facilities as well as establishing better connections with Avenida Cardenal Herrera Oria and Pronillo.

Route 4: Río de La Pila–Gral. Dávila: this consists of a moving walkway and a funicular. The funicular solves the barrier to mobility posed by the steep slope in the area, which had been resolved in previous stages by the extensive construction of a large number of staircases.

Route 5: Cabildo de Arriba: this consists of a lift from Pasaje de Peña to Plaza Juan José Ruano plus lifts from Rampa Sotileza to the administrative building of the Government of Cantabria and escalators on the slope of the Hospital. These actions in the Cabildo de Arriba neighbourhood **facilitate communication** between the northern and southern areas of the Pasaje de Peña and the Cabildo neighbourhood.

Route 6: Gurugú-Paseo de Canalejas slope: this consists of escalators plus a moving

Fig. 1 Metrominuto of Santander.

DATA

LOCATION
Santander, Cantabria.

ACTORS
· Santander City Council.
· WSP Spain.
· Spanish Network of Cities for Climate.

DATES
· 2010: Start date.

AREA OF ACTION
36,08 km2.

SOURCES
Santander City Council:
https://www.santander.es

PHASE
In the process of implementation.

Fig. 2. Proposed escalators, Route 1, University Campus-Carmelitas.

Fig. 3. Proposed moving walkway to provide easier access to the hospital facilities, Route 3.

Fig. 4. Río de la Pila Funicular, Route 4.

Fig. 5. Escalators in front of the start of Calle Cuesta del Hospital, Route 5.

Fig. 6. Lift between Pasaje de Peña and Cabildo, Route 5.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

plus a moving walkway. The configuration of an access corridor is needed to provide accessibility to an area with a large number of flights of stairs that **slow users down**, despite being the most direct means of access to the Alto Miranda area.

Route 7: Vargas–Calle Alta: escalators in Calle Alceda, already in operation when the Plan was drawn up, which facilitate access to public buildings.

Route 8: Plaza Numancia-Calle Alta: this consists of a lift from Calle Arco to Isaac Peral, which replaces the pre-existing stairs that lead to Calle Isaac Peral, thereby facilitating access to the central strip of Calle Alta.

Route 9: remodelling of the railway area: Once the remodelling of the current railway area, consisting of covering the current railway yard, has been completed, there will be a difference in level between the covered area and Calle Castilla, which will be bridged by installing a number of vertical lifts to mitigate the barrier effect of the covering, making it easier for the residents of this street to get to the planned recreational areas and walk towards Calle Alta.

In a city with a population that is progressively ageing, where the orography creates steeply sloping streets, this vertical mobility system is a fundamental element when it comes to improving accessibility and **bringing the city centre closer to pedestrians**. Based on the objectives, the Plan set out four basic, essential criteria for defining the proposed action plans:

(1) to reduce the number of vehicles in the city centre, in a way that is compatible with existing uses, (2) to encourage the use of the public transport system, (3) to encourage non-motorised transport, and (4) to adapt the parking system, facilitating parking for residents and promoting long-term parking outside the city.

RESULTS

The proposals mentioned above were implemented to good reviews from the public. In numerical terms, it is possible to show the total number of users moved in 2017 by mechanical means: a total of 6,080,198, data from six of the facilities in service (Río de la Pila lift, Río de la pila moving walkways, Alceda up and down, El Carmelo, Numancia and Eulalio Ferrer).

The total number of users in 2018 (between January and April) was 2,489,488, according to data from 8 facilities (Río de la Pila, up and down, Alceda up and down, El Carmelo, Numancia, Eulalio Ferrer, Renfe lifts, University and Vista Alegre), which means that we can estimate that there were an estimated **7,400,000 users in 2018.**

PROCEDURE

In 2010, the Santander vertical plan project was launched and the first work began. In 2015, two companies bid for the maintenance contract for lifts, escalators and moving walkways. Finally, the Governing Board approved the tender for the works to connect the University and General Dávila by means of moving walkways and escalators.

In 2016, Thyssenkrupp was awarded the maintenance of the escalators and moving walkways. The contract, which included a 24-hour service to deal with incidents, also affected the Calle Cádiz vehicle turntable (awarded for a period of two years). In September of the same year, the first four **escalators** were installed between the University and General Dávila.

In 2017, seven companies bid to build the escalators on Subida al Gurugú.

In 2018, the Lope de Vega moving walkways were opened in the second half of July.

REGULATORY FRAMEWORK

Municipal Sustainable Mobility Plan, which was aimed at reducing the need for private vehicle use, and the Action Plan, which aimed to promote non-motorised travel as part of Santander's vertical mobility plan.

ASSESSMENT

LESSONS LEARNED

The evaluation of Santander's Sustainable Urban Mobility Plan (SUMP) by Ecologistas en Acción de Cantabria was of particular interest in terms of making future decisions to increase proposals for non-motorised modes of transport.

From the point of view of user perception, it has been identified that the general public, with the exception of local residents, is not familiar with this type of vertical transport system. It should be noted that **public acceptance** of this type of vertical transport system, wherever it is installed, is very high.

GOVERNANCE AND TRANSFERABILITY

The actions were carried out by Santander City Council itself through the corresponding tendering procedures for each of the proposed infrastructures. The key element in this city council-led project are citizens. The **citizen participation** process was a good tool for analysing the different needs of residents, and any suggestions made.

Various communication actions were carried out, focusing on meetings with neighbourhood associations and different groups, presentations at the municipal sustainability council, information on the municipal website and press releases. This set of initiatives resulted in the actions being reported in the local media as an example of sustainable mobility. This type of participatory process facilitates decision-making by politicians, alongside municipal technicians.

SUSTAINABILITY

The measure implemented in the city was designed to promote sustainability, with more trips by non-motorised modes of transport, lower emissions of particulate matter and pollutant gases, and improved accessibility for residents with reduced mobility and the elderly.

This measure **reduces the consumption of non-renewable resources**, thereby reducing local pollution. It is also a measure that increases the quality of life of the residents and their health, as it increases the number of movements in the area and, therefore, is an invitation to lead a **more active lifestyle**. These improvements to health lead to a reduction in health costs in the community. The cost of construction and maintenance of escalators, moving walkways and lifts is relatively small compared to the social benefits they produce. All in all, it could be argued that this plan involves a change in the way of understanding cities and mobility, as it provides tools and outlines a path towards a more citizen- and environmentally-friendly urban environment.

Fig. 7. Plan of the lift and the walkway to Cabildo, Route 5.


Fig. 8. New moving walkway on Subida de Gurugú, Route 6.


Fig. 9. Inauguration of the escalators on Calle Alceda.

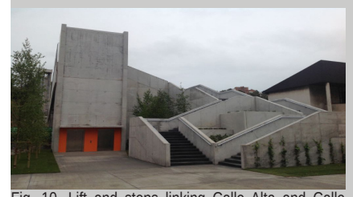


Fig. 10. Lift and steps linking Calle Alta and Calle Castilla.


Fig. 11. Remodelling of the railway space, Route 9.

DATA

LOCATION
Barcelona.

ACTORS
· Barcelona City Council.
· Barcelona Urban Ecology Agency.
· Neighbourhood associations, entities and groups.

DATES
· 2016: proposal for the project and start of work.
· 2017: completion of the implementation project.

AREA OF ACTION
43.611 m^2.

RECOGNITION
· 2018: European Prize for Urban Public Space.

SOURCES
Website of the Poblenou Superblock.
https://ajuntament.barcelona.cat/superilles/es/content/poblenou#

PHASE
Implemented.

SUMMARY

The Poblenou superblocks project is one of the first interventions that have been implemented as a pilot project in Barcelona as part of the Barcelona Superblocks Programme. The Poblenou Superblock was planned in September 2016 with the aim of moving towards a city with fewer, more sustainable cars. This was the first in a series of interventions which, in short, consisted of closing groups of at least four adjacent urban blocks (areas of no less than 16,000 m2) to road traffic. Basic mobility measures were initially applied, with temporary, reversible, fast-acting actions.

A **process of evaluation and proposals open to residents** was set in motion so that they could work together on the adjustments needed to improve the operation and strengthen potential, through sessions open to everyone and, with the creation of a Working Committee, with the main groups and entities. As a result of listening to complaints and proposals, and the work done in the framework of the Working Committee, the definitive mobility system was implemented at the beginning of 2017 and several actions were initiated in the public space to adapt the model to the area, its residents and the activities carried out.

OVERVIEW

OBJECTIVES

One of the main objectives of the urban superblocks project is to **reduce the space** taken up by private vehicles in favour of pedestrian space and the integration of a network of cycle lanes with a rapid orthogonal bus network.

These networks define some of the routes where cars can continue to circulate normally and large pacified interstices where they can only do so in a much more limited, slower, more respectful way. Pedestrians and bicycles have priority inside the perimeter of the superblock, and the maximum speed is limited to 10 km/h for motor vehicles.

Today, the aim is no longer just to make cities quieter, but above all to move towards **more sustainable cities** that promote local consumption and allow people to live without the need for a car, among other things.

The aim is also to improve Barcelona's air quality to below the maximum pollution limits recommended by both the WHO (World Health Organisation) and the European Union. This is a target that would save an estimated 3,500 lives annually in the area.

BACKGROUND

Over the decades, the use of private cars has determined the expansion of Barcelona. The plan defined in the second half of the 19th century by Ildefonso Cerdá gave great importance to traffic. This urban transformation turned Barcelona into one of the most compact and balanced cities in Europe. At present, the benefits of this compactness are outweighed by the scarcity of open spaces and green areas.

Barcelona has a density of 7,000 cars per square kilometre - Madrid 3,000; Paris 1,500; London 1,200 - and this has dire repercussions on spatial justice and health. More than 60% of public space is devoted to cars, despite the fact that cars are used for only 20% of journeys and the average occupancy of each vehicle is 1.2 people.

DESCRIPTION

With the "Superblocks Programme 2016-2019", the city council identified different **areas to be successively pacified** on the plot designed by Cerdá. The first of these, known as the "Poblenou Superblock" in the Sant Martí district, was a testing ground that seemed suitable for a first pilot experiment.

Groups of at least four adjacent blocks were closed to road traffic. In other words, areas of no less than 16,000 square metres: 400 metres x 400 metres, which is the size of four city blocks on the octagonal grid layout in the Ensanche area. The 20-metre wide streets inside the "superblock" used to have five metres on each side of the road for pedestrians and ten metres for cars - three lanes of traffic and a parking strip. After the intervention, motorised traffic only had one slow lane and was forced to make a 90° turn at each junction.

This freed up 75% of the surface area previously occupied by cars on each stretch of road. And the area gained at each junction, typically made up of 45° corners, was 2,000 square metres. This change in the distribution of space was carried out in two successive stages.

The first, which lasted until spring 2017, was based on **"tactical urban planning"** solutions, using paint, street furniture and trees with tree guards to create and accentuate living and social areas, especially dedicated to children and public interactions, in sections of the street and at traffic-free junctions. In total, the area has gained two large squares at junctions. Picnic tables were also set up, along with a literary trail and a space was set aside for occasional markets.

In autumn 2017, a new phase of the works began, which consisted of **consolidating the work permanently**, by means of conventional civil engineering works, by structuring the urban development of the Calle Almogàvers section, between Calle Roc Boronat and Calle Llacuna, along with pavements that form triangular squares at the entrances to the perimeter traffic streets.

RESULTS

The Poblenou Superblock, one of the first to be launched in the city, has increased the area of public space dedicated to pedestrians by 13,350 m2.

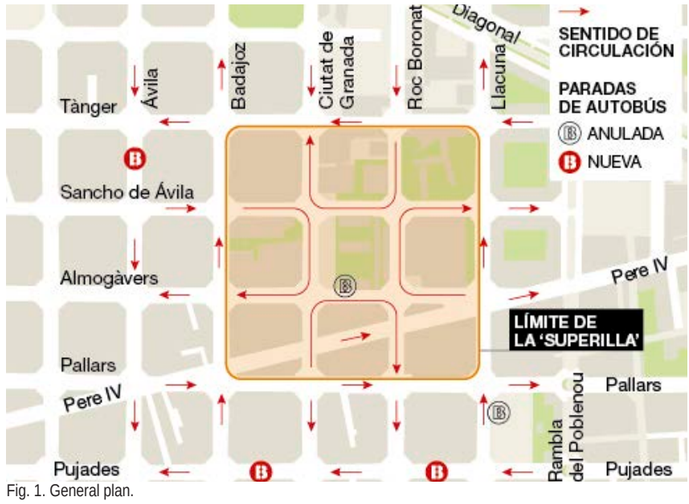


Fig. 1. General plan.

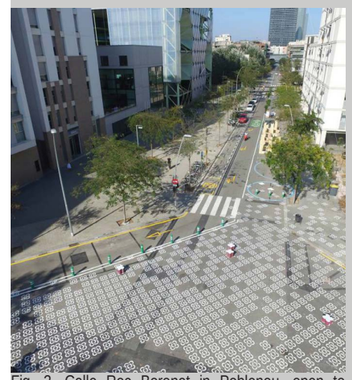


Fig. 2. Calle Roc Boronat in Poblenou, open to 'low-priority, low-speed' traffic


Fig. 3. Image of the work done.


Fig. 4. Image of the work done.

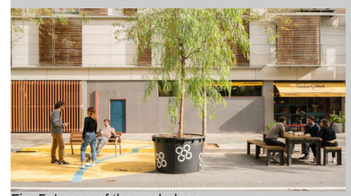


Fig. 5. Image of the work done.

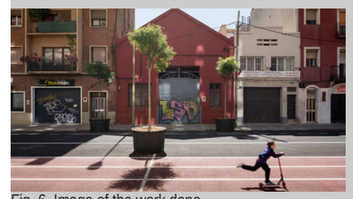


Fig. 6. Image of the work done.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

Although the four perimeter roads have seen a 2.6% increase in traffic, the number of vehicles on the inner streets has decreased by 58%. There has been an average reduction in daytime noise levels of five decibels on these streets, which previously exceeded noise thresholds.

In Poblenou, there has been a large **increase** in air quality and noise indicators in the inner areas of the superblocks. One of the main fears of the residents was how this plan would affect trade in the neighbourhood. But the new urban layout in Poblenou has increased the number of commercial establishments on the ground floor by 30.7%.

212 new trees have been planted in the superblock, and 349 seats, a 2,483 square metre children's play area, a participatory play area, more than 1,000 square metres of cycle lanes, an electric vehicle charging point and even a (modest) athletics track have been installed.

PROCEDURE

Architect Salvador Rueda started talking about **"large pedestrian spaces"**, the first outline of today's superblocks, back in 1987, when he was working for Barcelona City Council on the first sound map of the city.

The aim was to reduce the noise volume in most parts of the city to 65 decibels. In his attempt to contribute to the creation of a quieter and healthier city, Rueda proposed the total or partial pedestrianisation of several streets in Barcelona as early as 1987. The project, largely ignored at the time, has mutated over the years, almost always with Rueda as its intellectual mentor and main driving force.

In September 2016, the first superblock was implemented in the district of San Martín, in the perimeter made up of Calle de Badajoz, Calle de Pallars, Calle de La Laguna and Calle de Tánger, straddling the neighbourhoods of Poblenou, Parque del Poblenou and Laguna del Poblenou. Earlier, in around September 2015, the pilot superblock in Poblenou was chosen as a **research area** in conjunction with the International University of Catalonia (UIC by its Spanish acronym).

The first phase, which lasted until spring 2017, was based on using paint, street furniture and trees with tree guards to create and accentuate living and social areas, especially dedicated to children and public interactions.

Later, in the autumn of 2017, the second phase of work began, in which the structuring of the section of Calle Almogàvers, between Calle Roc Boronat and Calle de la Laguna, and the access junctions to the superblock, was carried out. The development work on the Dolores Piera and Isabel Vila squares was scheduled to begin in autumn 2017, with a planned duration of two years.

Recently, the city has committed to turning Barcelona into a **large superblock by 2030**, with less traffic, public spaces and green corridors. With the "Superblocks Programme 2016-2019", the city council identified different areas to be successively pacified on the plot designed by Cerdá.

REGULATORY FRAMEWORK

The functional superblock proposal is included in the Sustainable Urban Mobility Plan (SUMP), which was approved by the Plenary of Barcelona City Council after a participatory process lasting two and a half years. Neighbourhood associations, organisations and institutions that have a say in mobility and public spaces were involved in the process.

The pilot (functional) superblock was also included in the Strategic Plan for the District of San Martín.

ASSESSMENT

LESSONS LEARNED

Once the superblock had been implemented, one of the main lessons learned was that it is possible to improve the **quality of life** in a neighbourhood through a relatively simple change, based on environmental and sustainability criteria. The project could easily be extrapolated. It is currently being rolled out in other cities with the adjustments required for the local urban fabric. As it represents a substantial improvement, it could lead to the rezoning of public space.

The definition and integration of a more sustainable city model with a knowledge city model is required, as it is the definition of a new form of urban planning: ecosystem-based urban planning, which can be applied to new urban developments and existing fabrics.

GOVERNANCE AND TRANSFERABILITY

The Superblocks programme was carried out with the **involvement of residents**, organisations and groups. Participation was open to everyone interested through meetings and activities, both at a neighbourhood and city level, i.e. with contributions from local bodies and residents, and organisations in the city with expertise in different areas. The participatory processes usually include information sessions and workshops open to residents, organisations and all stakeholders.

One of the most striking actions was the creation of an **open-air museum** with the installation of six sculptures from the Guardians series by the Catalan-born Parisian artist Xavier Mascaró.. The artist himself considered this donation to be the perfect opportunity for art "to go out into the street, as a way of inviting people to experience culture". The elements used in the proposals that emerged from the workshop were made with the participation of a large number of workshops, Fab Labs and the IAAC in particular using recycled and/or reused materials. The Poblenou Urban District organisation (162 companies) took part in the process and provided an art installation: "BCN RESPIRA" and 22@Network.

More than 200 students from the Confederació de Tallers de Projectes d'Arquitectura (CTPA), made up of various architecture schools in Barcelona and Catalonia, installed proposals related to citizens' rights of exchange, culture, expression and leisure in public spaces. The action by the architecture schools occupied the space at the four crossroads, with ephemeral installations that show the potential uses related to citizens' four rights: (1) the right of children to leisure and play at the junction of Roc Boronat and Sancho de Ávila; (2) the right to culture and knowledge at the junction of Ciudad de Granada and Sancho de Ávila; (3) the right to exchange at the junction of Calle de Roc Boronat and Almogàvers and the right to expression and democracy at the junction of Ciudad de Granada and Almogàvers.

SUSTAINABILITY

On a social level, the **quality of spatial** comfort variables, meaning the thermal comfort achieved by revegetating the space once it has been freed up of traffic, and reducing noise, air pollution and odours, has increased. Economically, it has also led to an increase in commercial and service activity due to an improvement in urban quality, which in turn has led to an increase in the flow of people walking around. The project has also provided more public space for cultural uses. And from an environmental perspective, this project has helped to transform Barcelona's urban mobility model towards a more sustainable one.

Fig. 7. Atmosphere in the Poblenou 'Superilla' (Superblock).

Fig. 8. Image of the work done.

Fig. 9. Image of the work done.

Fig. 10. Three 'Guardians' by artist Xavier Mascaró.

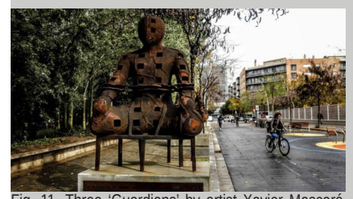


Fig. 11. Three 'Guardians' by artist Xavier Mascaró guard the Superblocks.

DATA

LOCATION
Logroño.

ACTORS
· Logroño City Council.
· GEA21- Grupo de Estudios y Alternativas 21.
· Traza Territorio.
· Neighbourhood associations, commercial associations and other groups.

DATES
April 2020: start of the initiative.

AREA OF ACTION
80,91 km2.

RECOGNITION
· May 2021: 1st National Mobility Award from the Ministry of Transport, Mobility and Urban Agenda, the CONAMA Foundation and the Royal Academy of Engineering.

SOURCES
Logroño Open Streets website:
http://xn--logroo-0wa.es/wps/portal/web/inicio/unidadesMunicipales/urbanismo/callesAbiertas/#

PHASE
In the implementation phase.

SUMMARY

As defined on its website, 'Logroño Open Streets' is a strategy to urgently adapt public space and mobility during the relief from lockdown caused by the Covid-19 crisis, with a number of minor, **quick interventions** in the streets of the city, which redistribute public space, prioritising people's health, but without forgetting that it is necessary to make this action compatible with economic activities and diverse interests. It is also a **public awareness-raising and communication** campaign.

The intention is to evaluate the actions carried out and, where necessary, consolidate those that were most effective and efficient, with public participation.

OVERVIEW

OBJECTIVES

The general objectives of this action were as follows:

- Achieving sustainable, safe and healthy mobility was the overall framework for the measures. Traffic calming is consistent with combating the effects of climate change, improving air quality and road safety.

- To improve road safety by setting the speed limit in urban areas at 30 km/h as a reference speed limit. These actions contribute to improving the mobility conditions for pedestrians and the use of bicycles.

- To provide **universal accessibility** and meet the needs of everyone. To this end, special attention has been paid to removing barriers when designing actions and a transformation of public space with a gender and age component will be promoted.

- To prevent COVID contagion by making it easier to maintain interpersonal distance. To this end, action will be taken on the minimum widths of pedestrian routes, particularly on busy streets.

- To comply with accessibility legislation. Logroño aims to become the first Spanish city to strictly comply with accessibility legislation in terms of urbanised public spaces, by incorporating accessible routes into all streets in the city centre.

BACKGROUND

The **health crisis** has forced an urgent, extensive and intense transformation of public spaces in cities. The city has been shown to be too heavily geared to the needs of cars and the requirements of health safety for pedestrians and cyclists were not being met. Many pavements in the city centre were less than 2.00 metres wide, making it impossible to keep a safe distance, and cycling infrastructure was poor and disconnected.

DESCRIPTION

Logroño Open Streets, which began in April 2020, consists of six intervention programmes:

- The Healthy Pedestrian Network, which consists of routes that facilitate pedestrian mobility between the various neighbourhoods and the main daily destinations in Logroño, in conditions of health and road safety.

- The Healthy Cycling Network, which is made up of a set of **cycling routes** that were deployed on primary and secondary axes, with actions designed both for people who are used to cycling (traffic calming) and for those who feel more vulnerable to traffic (segregated cycle lanes).

- Pacified areas that rely on traffic calming, which should also be applied by zones, adapting the areas proposed by the Sustainable Urban Mobility Plan to the new safety conditions.

- Improvements to environments with services and facilities that generate movements, have a concentration of people and require specific actions to improve them. These include school environments, where students, their families and school staff come together.

- Support for public transport which, with the loss of passengers during the post-Covid19 period, was offset by treating the main stops to facilitate waiting and by providing bus lanes to improve the regularity and reliability of services.

- Adapting regulations, for which a 30 km/h limit was introduced as a benchmark in the city. To this end, contra-flow cycling has been authorised on streets where there is other traffic and traffic light timings have been revised to avoid a build-up of people.

RESULTS

Open Streets has made it possible to **expand pedestrian** and cycling space, as well as creating the city's first bus lane, favouring modes of transport that were compromised during the pandemic. Actions were implemented quickly and included temporary, provisional and/or permanent proposals which were also implemented on a street, neighbourhood and city scale.

In the first phase, which was implemented between April and July 2020, 7 street actions were carried out and a pacified area was partially implemented. These interventions cover a surface area of 81,000 m². The strategy continues to be developed, with school environments being incorporated in September 2020 and the creation of an east-west cycling axis through the city centre.

The strategy was designed with continuity in mind and continues to guide a wide range of actions in the city, learning from actions that have already been carried out in order to improve implementation in the future. **The demonstration effect** has been one of the most

Fig. 1. Madre de Dios pacified area.

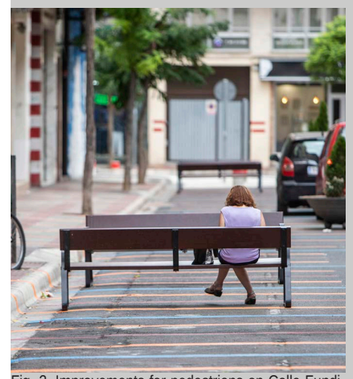


Fig. 2. Improvements for pedestrians on Calle Fundición.


Fig. 3. Preliminary draft section for República Argentina.


Fig. 4. Preliminary plan for República Argentina.


Fig. 5. Cycle lane on Sagasta bridge.


Fig. 6. Cycle lane on Sagasta bridge.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

OE5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.2 Promote sustainable means of transport.

5.1 Promote cities of proximity.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

positive results achieved, with the expansion of public spaces for pedestrians being well appreciated by the population.

The fundamental objectives linked to facilitating safe and healthy mobility in containment have been fulfilled.

On a technical level, the experience has been highly rated by national forums and won first prize at the first **National Mobility Awards.**

PROCEDURE

On May 4, 2020, Logroño declared an emergency for implementing actions aimed at **respecting interpersonal distancing measures** in terms of mobility through minor, quick, low-cost, tactical urban planning actions based on painting, signage and street furniture, measures that could be implemented quickly, with the aim of gaining quality public space for people.

The first streets affected by the strategy were Gonzalo de Berceo, República Argentina, Sagasta, Siete Infantes de Lara, Fundición, Guardia Civil and Vara de Rey, areas with a high population density, as well as the pacified area of Madre de Dios. In 2021, the actions continued with the east-west cycling axis, the "L" pacified area in the western part of the city and the creation of around twenty pedestrian crossings and raised platforms to enhance walking routes.

Up to fourteen pacified areas are planned, generally based on those already envisaged in the 2013 municipal sustainable urban mobility plan, but with added actions.

REGULATORY FRAMEWORK

The city has two planning documents that pave the way for this strategy to improve active mobility:

- The **Sustainable Urban Mobility Plan** for Logroño was approved in 2013 and contains a set of programmes that are aligned with improving active mobility.

- The General Municipal Plan approved in 1985, which has been updated in line with changes in national and regional legislation since then.

- The reference document for road safety is national legislation.

- In Logroño, the Regulatory By-law on Personal Mobility Vehicles, the technical name for electric scooters and other new personal light electric vehicles, has just been approved.

In addition, the Sustainable Energy Action Plan (2014) and the Municipal Action Plan against Noise in Logroño (2016) propose actions in line with the Logroño Open Streets project and, in particular, those linked to traffic calming and promoting sustainable and active means of transport, with the creation of cycle lanes and special lanes for buses.

ASSESSMENT

LESSONS LEARNED

One of the main **lessons learned from COVID 19** is that mobility in cities is strongly influenced by the use of private vehicles.

The recovery of this public space for citizens has had positive effects in terms of reducing pollution and improving road safety.

However, in the case of "Logroño, open streets", its main objective was to **safeguard the health of citizens during a pandemic**, which meant a change in the way people lived their lives.

The coronavirus crisis required an immediate, flexible, non-budgetary response to needs that had not been tackled with the necessary care and precision, even though they were known about. This action provided a response to specific problems, and was committed to active, healthy mobility, giving priority to pedestrian and bicycle use. And they were all achieved by means of minor interventions that represented the first step towards transforming the mobility model, not only in the city centre, but also throughout the city, covering different types of streets and urban fabrics.

GOVERNANCE AND TRANSFERABILITY

The transformations in progress can be evaluated and compared with the **participation of people** interested in deciding on the future of Logroño's streets. Communication and participation mechanisms are being put in place to share information and draw up joint proposals.

The first meetings are currently being held to learn about specific problems in neighbourhoods, and all citizens are welcome to send their initiatives, suggestions, improvements and communications via the e-mail address set up for this purpose.

These ways of working, and the proposal itself, could be replicated in other medium-sized cities with similar circumstances. Tactical actions during the pandemic were based on paint, bollards and other street furniture at an average cost of €3.15/m². The work was mainly municipal, supported by external companies during the design(GEA 21 and Traza) and execution (Señalizaciones Muro) phases.

A **mix of work** by municipal units and external support companies continued during the subsequent phases.

SUSTAINABILITY

The project aims to highlight the importance of building compact, dense, diversified cities, where the needs of daily life can be met in ten to fifteen minutes on foot, thereby making the "15-minute city" concept, which measures the approximate time it takes to reach the main public services needed in daily life, a reality.

As a result, **more sustainable, safer, healthier mobility** needs to be promoted. In this challenge, public administrations need to reconcile different interests, giving priority to people's health and lives.

A more balanced distribution of public space in the city centre should contribute to these objectives by reducing the space traditionally given over to the most polluting means of transport, private vehicles.

Moving towards sustainable mobility means prioritising pedestrian and cycling mobility in everyday journeys. Pavements need to be wider and comply with accessibility legislation, and streets need to provide room for everyone to spend time in and for children to enjoy. Cycling should also play an important role because it is another active, healthy mode of mobility, particularly in a flat city with short distances to cover, such as Logroño.

Fig. 7. Madre de Dios pacified area.

Fig. 8. Madre de Dios pacified area.

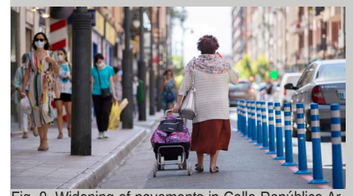


Fig. 9. Widening of pavements in Calle República Argentina.

Fig. 10. Expansion of the pedestrian area in Calle Siete Infantes de Lara.

Fig. 11. Minor work on the asphalt in Calle Sagasta.

DATA

LOCATION
Province of Pontevedra, Galicia.

ACTORS
Pontevedra Provincial Council and network of municipalities: Pontevedra, Poio, Barro, A Lama, Ponte Caldelas, Cerdedo, Cotobade, Caldas, Valga, Catoira, Moraña, Portas, Cuntis; Marín, Vilaboa, Bueu, Moaña, Vilagarcía, Sanxenxo, O Grove, A Illa de Arousa, Cambados, Ribadumia, Meaño, Meis, Mos, O Porriño, Salceda de Caselas, Soutomaior, Pazos de Borbén, Baiona, Fornelos de Montes, Nigrán, Gondomar, Tomiño, O Rosal, Tui, A Guarda, Oia, Ponteareas, As Neves, Mondariz, Salvaterra, Arbo, Covelo, A Cañiza, Crecente, Silleda, Vila de Cruces, Lalín, A Estrada and Forcarei.

DATES
· June 13, 2020: creation of the project.
· June 2023: evaluation of the project.
· February 12, 2021: approved by the Governing Council.

AREA OF ACTION
Municipalities in the province of Pontevedra.

SOURCES
Pontevedra Provincial Council:
https://www.depo.gal/espazos-publicos-plan-agora

PHASE
Phase one.

SUMMARY

ÁGORA is an institutional action network of local councils covered by Pontevedra Provincial Council with less than 50,000 inhabitants, which aims to **promote public space** as a fundamental right of citizens and to encourage alternative forms of sustainable mobility. Pedestrian space is expected to be increased by at least 50%. Ágora also includes an innovative and ambitious proposal for providing education and training on urban mobility and recovering public space.

OVERVIEW

OBJECTIVES

The main objectives that are intended to be achieved by devising and implementing Ágora are as follows:

- Quantitatively and qualitatively increase public space in the province's municipalities with a population of less than 50,000 inhabitants. This objective is intended to be achieved by 2023.

- Promote alternative mobility formulas that put an end to dependence on private vehicles.

- Improve the training of technicians and educate all citizens on sustainable mobility.

- Develop a **new form of governance** and cooperation between municipalities through networking.

- Attract funding and resources.

BACKGROUND

Pontevedra Provincial Council has distinguished itself, for some years now, as one of the **leading administrations** in Spain in terms of recovering public space for people in its actions on the provincial road network.

To this end, it has implemented initiatives such as the Road Safety By-law, the Guidelines for Intervention on Provincial Roads, the MOVESE Plan, the Basic Guide to Public Spaces and Friendly Mobility and given grants to municipalities in the province for developing mobility plans and safe school routes, among others. Ágora aims to consolidate the results obtained and replicate these actions in all of the municipalities that make up the network.

DESCRIPTION

Ágora is an institutional action network that values public space as a fundamental right of citizens. To this end, one of its principles is that public space is a substantial part of the collective life scenario. Ágora is promoted and coordinated by Pontevedra Provincial Council through its Department of Alternative Mobility and Urban Public Spaces. The municipalities that are part of this network are committed to carrying out policies to recover their public spaces and promote alternative mobility in their municipalities. The Plan is aimed at **promoting initiatives and aid programmes** that benefit Ágora municipalities so that they can implement projects to recover public spaces and promote alternative mobility. It is inspired by the following 10 principles:

- Public space is a right on a par with health or education. Everyone in an urban area of any size has the right to have a quality public space in which to conduct their lives and social relationships in safety. Administrations have an obligation to guarantee this right to citizens.

- People first. The people on the receiving end of any changes to public space are prioritised. The aim is to ensure **pedestrian** mobility, which will be prioritised over other modes of transport in the following order: bicycles, personal mobility vehicles (PMVs), public transport and private cars.

- Inclusive mobility to ensure universal accessibility to public spaces, giving priority to the needs of the most vulnerable groups: children, the elderly and people with functional diversity.

- Autonomy of children as a basic part of children's **socialisation** process. Local councils should promote the creation of safe school routes, encourage children to play in the streets and set up channels for children to get involved in municipal life.

- Alternative mobility, promoting natural, active mobility as opposed to motorised mobility both in urban centres and in rural areas, creating spaces with priority for pedestrians in central streets and squares. The aim is to create pedestrian and cycle routes in rural and interurban areas. Cycling will be promoted as a means of daily transport.

- Creation of safe spaces, by implementing traffic calming measures, by installing speed-reducing pedestrian crossings. Limiting speed on municipal roads and in urban environments to 30 km/h. Areas where pedestrians have priority will be limited to a speed limit of 10 km/h.

- Healthy habitat promoting **active mobility**, to build a healthier society. Councils will promote initiatives to encourage healthy practices and uses among citizens, such as walking and cycling.

- Friendly, high-quality spaces. Councils are committed to ensuring that all public space intervention projects will result in a friendly, high quality pedestrian space, with a continuous, obstacle-free walkway with a minimum width of 2.5 m (preferably 3 m). A minimum width of 2.5 m (preferably 3 m) will also be guaranteed in projects involving cycle lanes and/or pedestrian walkways (where the road is segregated).

Fig. 1. Principles of Ágora.

Fig. 2. Public space as part of citizenship.

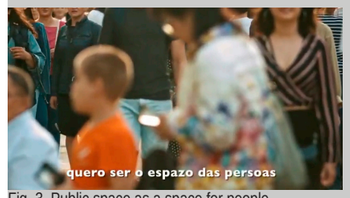


Fig. 3. Public space as a space for people.

Fig. 4. Public space full of life.

Fig. 5. Public space full of hope.

Fig. 6. Public space as a meeting place.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

OE5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.2 Promote sustainable means of transport.

5.1 Promote cities of proximity.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.4 Design and implement training and awareness-raising campaigns on urban issues.

If this solution is not possible or not advisable, a single platform with the necessary **traffic calming measures** to protect the most vulnerable groups would be a priority.

- Local economic activity. Councils will promote social, cultural, sporting and leisure activities in the reclaimed public space, which will also act as a tourist resource.

- Sustainable mobility. In view of the current climate crisis and taking into account the SDGs and 2030 Agenda, councils will promote reducing the use of motor vehicles. Public space will tend to have lower environmental pollution or be free of it.

The Plan is also committed to training, improvements in governance and the search for synergies.

RESULTS

Since the Plan was approved, the network has set up the **Ágora Faculty** (https:// redeagora.gal/#facultade), which is playing a key role in training the managers and technicians responsible for implementing the proposed actions.

Other actions have also been carried out as part of the Plan, including advice from the Provincial Council to the town councils involved in the project, an investment of 2.4 million euros in grants, the Ágora Photography Awards on public space (an international award with a prize of 40,000 euros), the creation of Metrominutos, and bicycle registers.

PROCEDURE

Pontevedra Provincial Council undertook to provide the municipalities with specialist technical staff to guide and advise them on how to carry out the objectives proposed, as well as to organise courses, conferences, exhibitions and other training activities and to produce printed and audiovisual material to support communication and awareness-raising. The Ágora Faculty plays a very important role in the initiative in terms of training the technicians and local decision-makers involved in these policies. From the outset, it was also decided to set up an advisory council, a working group to share experiences and to launch a call for prizes for the best interventions in public spaces, among other proposals.

For their part, the member municipalities undertook to substantially increase municipal **public spaces for people by 2023**, and create alternative mobility infrastructures (on foot and by bicycle), while complying with the ÁGORA Principles and the criteria of the Basic Guide to Public Spaces and Friendly Mobility. They also undertook to produce a Sustainable Mobility Plan or a similar strategic plan and to provide data to the Provincial Council to process the information and set up a work schedule linked to targets and make the financial contributions that may be required to carry out the actions, where appropriate.

As part of the procedure to implement Ágora, the first Asamblea Ágora de Concellos Polo Espazo Público (Agora Assembly of Municipalities for Public Spaces) was held on November 3, 2021. It was convened by Pontevedra Provincial Council through the Department of Mobility and was attended by more than fifty technical and political representatives from the province, together with a number of mayors and other municipal representatives, who shared their experiences and needs. The latter confirmed the request for the Provincial Council to continue **providing advice and support** to local councils to deal with social difficulties, facilitate bureaucratic procedures with other administrations and obtain funds to carry out works. Three key issues for implementing the Agora Plan were discussed there:

-The first is the promotion of a **set of initiatives** to be implemented as part of the Ágora Plan in 2022, with the aim of reclaiming spaces for people. To this end, financial aid will be provided for drawing up projects.

- The second is the **creation** of the Ágora Digital Observatory, which will be a virtual box in which all examples of interventions that are being carried out by Ágora town councils will be deposited.

- The third deals with the Provincial Council's commitment to directly processing European funds for projects that are already well advanced in each of the municipalities.

REGULATORY FRAMEWORK

The regulatory framework for implementing the Plan was as follows:

- The Sustainable Urban Mobility Plans of each municipality.
- The creation of the network of public spaces by A Coruña City Council and approval of its action protocol.

ASSESSMENT

LESSONS LEARNED

Three lessons were learned in particular. The first of these was the recovery of public space to facilitate social cohesion, improve the environment and make cities friendlier, while promoting a healthier way of life and alternative mobility formulas. The second involved networking between municipalities, which leads to the creation of **synergies** and improved governance between administrations. And finally, the third lesson learned was the creation of the Ágora Platform, which generated knowledge and training for the people responsible for adopting public policies for the benefit of the municipalities and their inhabitants.

GOVERNANCE AND TRANSFERABILITY

The characteristics of the project and its versatility mean that it could be replicated by all of the provincial councils, the communities of municipalities and regions and even the other Autonomous Communities across Spain, due to the content of the Plan, its promotion through networking and improved governance. The Provincial Council provided specialist technical staff to guide and advise the municipalities on how to achieve the objectives set and promote funding through grants and aid programmes to benefit municipalities with less than 50,000 inhabitants affiliated to ÁGORA. There were also lectures by international guest speakers who were experts on public space, such as **Jan Gehl and Xaida Muxí**, as part of the events taking place at the Ágora Faculty.

SUSTAINABILITY

In addition to the fact taht the practice is in line with the 2030 Agenda and specifically with SDGs 3, 9, 11, 13 and 17, its principles fall perfectly in line with the three pillars of sustainability and it is cross-cutting and integrating in nature, as called for by the Spanish Urban Agenda. Consequently, from a social perspective, the recovery of public space is understood as a **right of the people** - particularly children - and a commitment was made to inclusive, safe mobility from an environmental perspective, while at the same time advocating for healthy, friendly, high quality spaces, alternative mobility and promoting the local economy.

Fig. 7. Inclusive mobility.

Fig. 8. Change of priorities.

Fig. 9. Autonomy of children.

Fig. 10. Friendly, high-quality spaces.

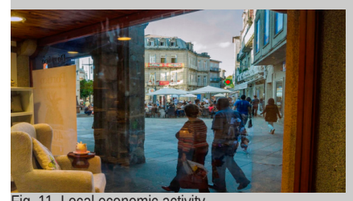


Fig. 11. Local economic activity.

SOCIAL COHESION AND EQUAL OPPORTUNITIES

6 STRATEGIC GOAL ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

SPECIFIC GOALS

6.1. REDUCE THE RISK OF POVERTY AND SOCIAL EXCLUSION IN DISADVANTAGED URBAN ENVIRONMENTS.

- Youth housing plan in La Rinconada.
- ERACIS: Strategy for social inclusion and cohesion in Andalusia.

6.2. STRIVE FOR EQUAL OPPORTUNITIES FROM A PERSPECTIVE OF GENDER, AGE AND DISABILITY.

- Ermua: age-friendly town.
- Set to introduce the gender perspective in the urban process, Valencian Community.

DATA

LOCATION
La Rinconada, Seville, Spain.

ACTORS
·La Rinconada Town Council.
·Soderinsa Veintiuno Desarrollo y Vivienda.
·Andalusian Regional Government.
· Ministry of Transport, Mobility and Urban Agenda.

DATES
· 2007: Design of the Youth Housing Plan.
· 2017: Youth Housing Plan.

AREA OF ACTION
12.000 m².

SOURCES
La Rinconada Town Council:
https://www.larinconada.es/

RECOGNITION
OTAEX Award 2019 in the category of Urban Planning and Environment.

PHASE
In progress.

SUMMARY

This is a programme to promote and build **social housing** for sale to young people, promoted by La Rinconada Town Council through its public company Soderinsa Veintiuno Desarrollo y Vivienda, to provide young people under the age of 35 with decent, suitable housing.

The Youth Housing Plan project took the step of building a 168-housing development in La Unión using its own funds. Thanks to the success of the first phase of 30 homes, another 24-home project was launched, co-funded by the state (agreement with the Ministry of Development and the Andalusian Regional Government) in the former La Rinconada fairground.

These initiatives are aimed at responding to one of society's main demands. Housing is a necessity for many families whose economic resources are low, which is why the idea is to give a boost to the acquisition of housing through this public initiative, without cost overruns and providing funds to get people onto the housing ladder, which is what tends to be the hardest thing to do. In addition, La Rinconada Town Council has created a Comprehensive Youth Plan, a valuable tool focused on understanding the needs of young people in all areas of their lives, through a process of active participation, with the idea of making them aware of the work being carried out in the area and adapting policies and actions to them. The youth housing plan is expected to have more than **500 actions in 4 years**.

OVERVIEW

OBJETIVES

The Rinconada Housing Plan has **three general objectives** which in turn are broken down into specific objectives:

- The first general objective is to facilitate access to decent, suitable housing. The specific objectives here include promoting a sufficient supply of affordable housing, providing sufficient residential land for new housing needs, giving citizens the tools to provide access to housing in a self-organised way (tenure and use), and ensuring that the social function of housing is fulfilled and preventing speculation.

- The second general objective is to avoid urban and residential vulnerability. The specific objectives here are based on preventing the loss of housing for economic reasons, facilitating the availability of social rentals and limiting cases of energy poverty.

- The third general objective is to promote the quality of buildings and the urban environment, and the specific objectives of this are based on improving the accessibility of housing, increasing energy efficiency and savings, and encouraging the use of renewable energies.

The aim of the **Comprehensive Youth Plan** is to empower young people by encouraging their active participation and involvement in designing and implementing proposals that contribute to their development and progress as individuals, as well as to the development of their life project and the model of town they want for their overall development.

BACKGROUND

This used to be waste land (La Unión) where the La Rinconada fairground was located.

This was valuable land that was not being exploited to its full potential. It should be noted that prior to the youth plan, young people were not involved in managing or taking part in the **future of the town**.

DESCRIPTION

These homes are located in the privileged enclave of Pago de Enmedio, La Unión, which has become the most important urban development project ever carried out in La Rinconada. Their design and development by the public sector ensured that the municipality's growth was directed towards physically connecting the two main population centres: La Rinconada and San José. This development included a level of facilities and equipment designed to improve the quality of life of citizens, in line with the most advanced European directives. It triggered a **town model** that safeguards public services in the future: large areas for facilities, roads of above-average width featuring large landscaped areas and an extensive network of cycle lanes, among other actions of value for the population and its quality of life.

The first project will consist of 168 homes to be divided into phases. In the first of these, 30 properties will be offered for sale (multi-family homes (flats) with two and three bedrooms, a garage, storeroom, terrace and laundry room). The homes will range in size from 82.28 to 102.90 m2 and their final sale price will range between 59,300 and 76,120 euros (with a grant awarded). Homes for sale with mortgages of around 250 euros and subsidised deposits. Meanwhile, the second phase, which involves building a further 70 homes, also flats, is already underway.

At the same time, while the first project is still being implemented, a new project of 24 social rental housing units will start in early 2022. To be eligible, it is essential to be registered on La Rinconada's **List of Applicants** for Housing. It is a new system that works as a unique database that gathers up-to-date information on everyone interested in applying for social housing, either for sale or for rent. The list collects personal data at the time of registration and is valid for a period of three years from the time of the last update.

This project was achieved thanks to the youth housing plan that the town council designed to keep private housing sale prices in check, while maintaining and increasing the rate of public housing construction. The more housing,

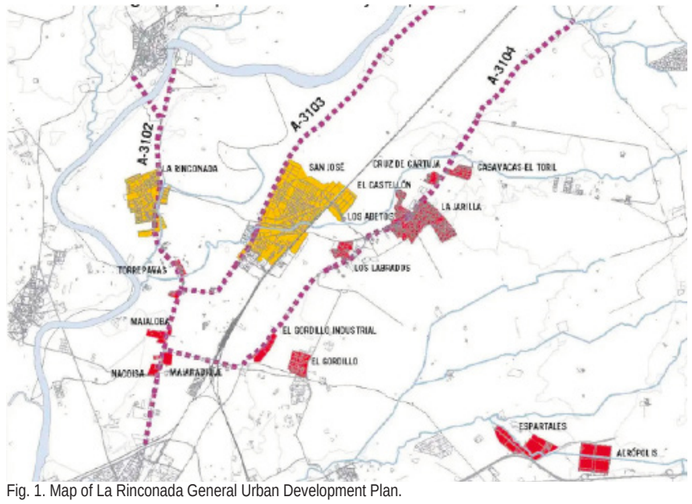


Fig. 1. Map of La Rinconada General Urban Development Plan.

Fig. 2. Land use in La Rinconada.

Fig. 3. First homes in the Youth Housing Plan.

Fig. 4. Youth Housing Plan Training Centre.

Fig. 5. Proposal for building subsidised housing in the former La Rinconada fairground.

Fig. 6. Presentation of the Comprehensive Youth Plan.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

the **lower the prices** and, if they solve the internal demand in La Rinconada, the market will come down to lower prices. In other words, the future of housing construction is linked to social housing and the prices set by the state.

RESULTS

In September 2021, La Rinconada Town Council handed over the first 30 social housing units built in La Unión. The works were carried out by the municipal public company Soderinsa, and represented the first phase of a total of 168 buildings, promoted by the council itself in the face of the existing paralysis in the administrations that hold the competences in this area.

In addition, 70 of the total of 168 properties included in this project are under construction, meaning that young people will not have to look for cheaper housing in the second or third metropolitan band and that there will be properties available for everyone in a prosperous municipality such as La Rinconada.

At the same time, La Rinconada is continuing to work to make more public housing available to the public, such as the new 24 **social rental** homes in the former Rinconada fairground area. The Department of Spatial Planning and New Developments is going to sign the tender documents imminently to complete the development works in this sector, which could start at the beginning of the year and be completed by the summer of 2022 (the date on which it is intended that the new residential facilities will start to be built).

PROCEDURE

On January 25, 2010, La Rinconada Town Council, through its public company Soderinsa Veintiuno, launched the Municipal List of Applicants for Housing, which removed the need for registrations and deadlines for applying for public promotions that will be triggered in the municipality on the land of La Unión, preferably for young people.

In June 2017, La Rinconada reactivated the List of Applicants for Housing in the La Rinconada **Youth Housing Plan**. It is an initiative promoted by the Andalusian Regional Government which acts as a database to be used by local councils when allocating social housing. Consequently, in October of the same year, a competition was launched for ideas at the preliminary design level so that any architectural studios interested could submit their proposals. Nine studios did so and the winning proposal was selected in December of that year.

In May 2018, the town council continued to work on the Youth Housing Plan, under which a development of 168 homes was being built in La Unión (with a first construction phase of 30 homes). In February 2019, La Rinconada sold plots of land at discounted prices for another social housing self-construction project; in July, construction of the new development began; in September, the first 30 social housing units were handed over, and a draw for the purchase was held in October. Finally, in December, the Mayor signed an agreement with the Ministry to promote the construction of 24 social rental housing units in the former La Rinconada fairground.

REGULATORY FRAMEWORK

- The Youth Housing Plan was regulated by the **State Housing Plan 2018-2021**, published in the Official State Gazette on March 10, 2018, and in accordance with the third final provision, it came into force on the day following its publication. Generally speaking, the 2018-2021 State Plan follows on from the previous Plan and is committed to promoting rental and refurbishment as a priority.

The Comprehensive Youth Plan was also directly involved in shaping the proposals and ideas that the young people in the municipality can put forward about what they want their **town** to be like. To this end, the primary, key working tool is the participatory process of the young people themselves.

In addition, the General Urban Development Plan played its part in terms of volume planning, the local road layout and the location of public land.

ASSESSMENT

LESSONS LEARNED

Considering young people in a holistic way is one of the principles that can help to transform the current situation. This group cannot be treated in a partial or segmented way when they come to the local council with a need for housing, training, etc. Their needs must be met in a coordinated manner with integrated actions that strengthen their relationship with this institution, and not just with a specific department.

Active participation is another lesson learned, using mechanisms and tools that encourage young people to take part in decision-making on projects that affect them, such as equality to ensure that young people in La Rinconada have the same opportunities when it comes to accessing information, employment, housing and training. The List of Applicants for Housing is also a valuable instrument for gauging the real housing needs of local residents, which is key information when it comes to drawing up future municipal housing plans. The main novelty in this regard is that construction companies that decide to develop public housing are also obliged to use this database to allocate them.

GOVERNANCE AND TRANSFERABILITY

The structure of the aid or grants proposed by La Rinconada Town Council in this area consists of open, free competition procedures in which applications are evaluated and allocated in order of score. The **youth support programme** in which this measure is included is part of the state scheme.

On another note, it should be added that Soderinsa is approved by the Ministry of Development and Housing of the Andalusian Regional Government as a Rental Promotion Agency, and that it carries out all of the actions required in this regard for implementing the different calls for proposals for the various programmes in which it is involved in the town. Likewise, a Comprehensive Youth Plan has been created for La Rinconada that follows the principles of transversality and coordination by the council's different departments and services, such as Equality, Social Welfare, Environment, Cooperation and Development, Festivities, Health, Participation and Mobility.

SUSTAINABILITY

Every possible economic means has been mobilised in La Rinconada to provide the maximum level of aid: government funds, aid from the housing department, and the Andalusian Regional Government. In addition, efforts have been made at all times to reach out to the community as a whole, particularly to young people, to pass on all information produced in a clear way. This programme is achieving a high social benefit by converting degraded areas and leftover spaces into **new sustainable areas.**

Fig. 7. Future location of social rental housing.

Fig. 8. Future plot of group residential housing units from Calle Aníbal González (Detailed Study).

Fig. 9. Existing transformer station (Detailed Study).

Fig. 10. Development Plan (Detailed Study).

Fig. 11. Section of roads. (Detailed Study).

SUMMARY

The “Andalusian Regional Strategy for Social Cohesion and Inclusion. Intervention in disadvantaged areas” (ERACIS), is a Labour and Social Cohesion and Inclusion Project, subsidised by the European Social Fund and the Andalusian Regional Government under the coordination of the Regional Ministry of Equality and Social Policies. It is aimed at acting in those neighbourhoods where there are serious situations of social exclusion and/or where there are risk factors for these situations to arise.

ERACIS was approved by the Agreement of August 28, 2018, of the Governing Council and set in motion a new form of intervention guided by an integrated, community-based approach, by implementing the objectives and principles of the Andalusian Social Services Law and relying on the transformative power of joint action and the capacity for intervention of a large group of people qualified to act in these areas. It has been implemented by setting up Local Action Plans for intervening in disadvantaged areas. These Plans were selected through public calls for proposals in a competitive procedure.

OVERVIEW

OBJETIVES

The key objectives of the Strategy are: (1) To intervene in those neighbourhoods where there are **serious situations of social exclusion** and/or where there are risk factors for them to arise; (2) to act on the general context of the municipality in order to change the image of these neighbourhoods and to eliminate territoriality as a factor of exclusion; (3) to improve the integration of people in a situation or at risk of social exclusion by implementing personalised integration pathways, with a comprehensive, community-based approach that facilitates access to social protection systems for people living in disadvantaged areas and (4) to put mechanisms in place to enable people living in disadvantaged areas to access the various social protection systems, particularly employment, health, housing and education, as well as other public services.

The proposed methodology is based on the need to mobilise financial, technical and organisational resources in order to work in collaboration with all of the administrations, particularly local ones, with the different regional departments and with the participation of non-profit organisations and citizens. The working formula envisaged is actions guided by a comprehensive, community-based approach in order to implement the objectives and principles of the Andalusian Law on Social Services.

As defined in the Strategy itself, its mission is to contribute to **improving the quality of life of people living in disadvantaged areas**, by defining, organising and evaluating regional and local public policy and management, and promoting the active participation of citizens, the different administrations and the public and private entities involved in developing the area. Its vision is to improve the integration of disadvantaged areas into its municipality through comprehensive actions, with a particular focus on integrating people into the labour market and improving the results obtained by the mechanisms that provide the public welfare state services in the area.

BACKGROUND

According to the latest statistics from the National Institute of Statistics and the AROPE rate (2020), **the extreme poverty risk rate In Andalusia is 35.4**. At a municipal level, the analysis of poverty and social exclusion was carried out using proxy indicators of per capita income and the unemployment rate, given the lack of statistics at this level.

The analysis revealed the differences in each municipality compared to the regional average and to other thresholds such as relative poverty, which poverty studies set at 60% of the median income per consumption unit, or severe poverty, which is set at 30% of the median.

The map of disadvantaged areas in Andalusia is extensive, and affects a large number of urban and rural areas. The **problems of exclusion** have worsened with the crisis. Action in neighbourhoods and areas in need of social transformation, known as disadvantaged areas in the framework of this Strategy, has helped to alleviate the serious situation, but its capacity for intervention is not in keeping with the magnitude and difficulty of the problems it faces. Disadvantaged areas are defined as clearly delimited urban areas with a population in which there are structural situations of severe poverty and social marginalisation and where there are significant problems in the following areas: (1) housing, urban decay and deficiencies in infrastructure, equipment and public services; (2) high rates of absenteeism and school failure; (3) high rates of unemployment coupled with serious vocational training deficiencies; (4) significant health and hygiene deficiencies; and (5) phenomena of social disintegration.

Disadvantaged areas have emerged mainly in **urban areas** and are related to the concentration of vulnerable populations, to the existence of physical barriers and to the segregationist tendencies of contemporary society that lead to processes of institutional and social exclusion and the deterioration of social capital. Once a situation of exclusion has emerged in an area, it accentuates the phenomena of a breakdown in relations between the outside and the area and causes a deterioration in internal social relations, with a loss of trust, and a breakdown of social networks, sometimes with serious effects on the conditions of coexistence. The breakdown of trust networks and deterioration of relational dynamics acts as a disabling factor for social policies.

The experience gained from decades of action in this field by social services, and from other policies, concludes that a comprehensive, community-based approach is the most effective way of intervening in these areas. The simple circumstance of living in a disadvantaged area has a negative impact on the life chances of the most vulnerable population groups, which means that the area is a factor that exposes these population groups to higher levels of **social risk and deepening inequalities**. This circumstance is what this Strategy addresses, enabling new approaches and means to reverse the situation in the targeted areas.

DESCRIPTION

The principles underlying the Strategy to be implemented through local plans are:

1. Community-based approach. This involves transforming the territory and the area’s community resources by involving the local population.

2. Gender mainstreaming. Local plans for action in disadvantaged areas must consider, analyse and act by taking the different realities of men and women into account, seeking a balance between these relationships and, therefore, equality.

3. Empowerment and autonomy. This Strategy must use local plans to promote the visibility of all the strengths and potential of the areas and the people living in them.

4. Comprehensiveness. The different types of action need to be analysed and dealt with using a systemic approach, in which the **different dimensions** of sectoral action are integrated.

DATA

LOCATION
Andalusia.

ACTORS
· Andalusian Regional Government.
· Local entities.

DATES
· 2018 - present.

SOURCES
Website of the Andalusian Regional Government.
https://www.juntadeandalucia.es

PHASE
In the process of implementation.

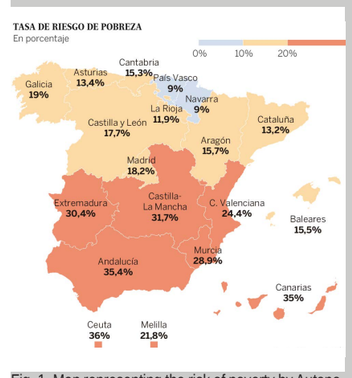


Fig. 1. Map representing the risk of poverty by Autonomous Community.

Fig. 2. ERACIS, Chiclana, Cadiz.

Fig. 3. ERACIS, Roquetas de Mar, Almería.

Fig. 4. ERACIS, north Seville.

Fig. 5. ERACIS, Villanueva del Arzobispo, Jaén.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

5. Public-private cooperation. Local plans must take all viable initiatives in the territory into account and be the expression of the convergence of different actors such as citizens, civil society, the Administration, organisations, companies and entities in the economic sphere and entities in the academic sphere, such as universities.

6. **Involvement of citizens** and stakeholders. To this end, a commitment must be made to develop adequate participation channels through which the actors involved in the 4 lines of action of this Strategy feel that they are protagonists and owners of the social and urban inclusion process, and will have an influence on the design of the actions, how they are implemented and how they are evaluated.

7. Coordination. Territories must be considered as protagonists in the coordination.

8. Prevention. Identifying the factors that have the greatest impact on the negative progression of the situation towards the critical stages of social exclusion and adopting measures that act early and effectively to reduce this risk.

9. Preferential, intelligent use of the area's assets. It is very important to take tangible assets into account, such as public facilities and spaces, among others, and intangible assets, paying special attention to the role that leaders in the area can play.

10. **Solidarity and equity.** Implementing this strategy through local plans should lead to greater social cohesion in the municipality.

11. Central focus on people and families. As a complement to the community-based approach, personalised pathways to integration into the labour market must be based on a comprehensive assessment of the needs of each person in their family, group and community environment.

12. Recognition of human diversity and promotion of interculturality. Diversity is a concept inherent to humanity itself, directly associated with the assumption of personal and social identities by individuals as an added value to society.

The "**Andalusian Regional Strategy** for Social Cohesion and Inclusion. Intervention in disadvantaged areas" is structured into 4 lines of action, 54 operational objectives and 129 measures.. The 4 lines of action are: (1) sustainable economic and community development; (2) public policies for welfare and social cohesion; (3) improvements to habitat and coexistence and (4) networking and innovation in community social intervention.

RESULTS

ERACIS was approved in 2018 and implemented through local action plans. 42 **local intervention plans** are currently being implemented in the 8 provinces of the region. So far, 3 calls have been held (2019-20, 2020-21 and 2021-22). The Strategy envisages a monitoring and evaluation system that will make it possible to: (1) know the degree of progress in terms of its implementation; (2) identify deviations from operational objectives and the causes of these deviations; (3) alert the management centres responsible for actions of any unforeseen situations.

Meanwhile, the evaluation of the Regional Strategy aims to achieve the following goals: (1) ensure mid-way through implementation that the strategy is still internally and externally relevant and coherent; (2) reorient the Regional Strategy to tackle new challenges that emerge during its implementation; (3) determine the degree of effectiveness and efficiency with which it has been implemented, and (4) determine the impacts of the Regional Strategy and learn lessons for future interventions in this area.

PROCEDURE

ERACIS was approved in 2018 and since then there have been three annual calls for grants. The implementation procedure involves the approval of Local Action Plans. Only one Local Action Plan per Local Authority should identify **the areas in which it wants to act**. The principles, lines, objectives, measures and areas of governance will be defined in accordance with the Andalusian Regional Strategy for cohesion and social inclusion (ERACIS), with the delimited annual implementation periods running from September 1, 2018 to August 31, 2022. The form of participation of the municipal departments, private entities and participating citizens must be approved by the corresponding body of the local authority.

The areas in which action will be taken were selected by taking indicators such as the unemployment rate, the immigrant population, the deficit in the use of public education and health services and the existence of problems of security and coexistence, among others, into account.

REGULATORY FRAMEWORK

The Spanish Constitution; the National Action Plan for Social Inclusion; ERACIS itself and the calls for grants; the Statute of Autonomy for Andalusia and Law 9/2016, of December 27, on Social Services in Andalusia.

ASSESSMENT

LESSONS LEARNED

Part of the causal factors for the emergence of deprived areas relates to urban planning, and the existence of physical and symbolic barriers, and it is in this area that action is needed to restore the open societal conditions of a democratic urban society. Without **organised, inclusive communities** moving towards goals of progress for everyone, it is very difficult to envisage changes that are both structural and cultural; changes that affect individuals, but also the community, behaviours and values.

GOVERNANCE AND TRANSFERABILITY

The transferability of ERACIS is implicit in its design, as it is based on drawing up Local Action Plans which, within its **strategic framework**, are adapted to the specific needs of each neighbourhood.

SUSTAINABILITY

A strategy aimed at taking action in areas with a particular incidence of poverty and exclusion necessarily has the declarations and recommendations of international organisations that relate to this issue as a binding overall framework. More specifically, the 17 Sustainable Development Goals (SDGs) endorsed in 2015 by the United Nations General Assembly. The first of these goals is "End poverty" and Goal 11 is "Make cities and human settlements inclusive, safe, resilient, and sustainable".

Therefore, achieving Goal 11 is directly related to taking action in areas of towns and cities where the living conditions of the population determine higher levels of poverty and social exclusion. It is also important to point out that the approach proposed by international bodies is comprehensive and takes economic, urban and environmental factors into account.

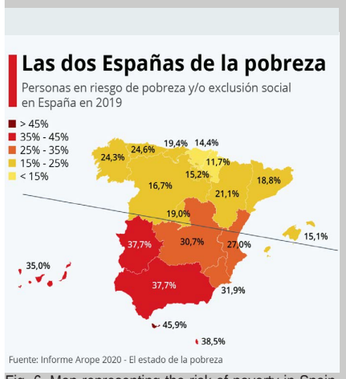


Fig. 6. Map representing the risk of poverty in Spain, Arope 2020 report.

Junta de Andalucía

Fig. 7. Andalusian Regional Government.

Fig. 8 ERACIS. Steering committee for community intervention in Huelva.

Fig. 9. ERACIS. Working session at Cadiz City Hall

Fig. 10. Social exclusion.

DATA

LOCATION
Ermua, País Vasco.

ACTORS
· Ermua Town Council.
· Global Network of Age-friendly Cities and Communities (World Health Organization).
· Department of Employment and Social Policies of the Basque Government.
· Fundación Matia (Euskadi Lagunkoia).

DATES
· 2010: The World Health Organisation created the Global Network for Age-Friendly Cities and Communities in 2018.
· 2016: Ermua launched the Age-Friendly Town project.
· 2018: Ermua joined the Global Network for Age-Friendly Cities and Communities.
· 2019: Ermua drew up the Action Plan for the project.

AREA OF ACTION
Municipality of Ermua.

SOURCES
Ermua Town Council:
https://www.ermua.es/

PHASE
In the process of implementation.

SUMMARY

Ermua Town Council decided to take on the responsibility of implementing Bizkaia Provincial Council's 2013 Strategic Plan for Older People. This was based on the Dublin Declaration (2013) on Age-Friendly Cities in Europe. This declaration underlined, in particular, the importance of **adapting urban environments** to the needs of older people, a growing segment of the population in Europe.

The Plan consisted of trying to identify the challenges and needs of Ermua's **older citizens** in order to improve conditions in the town and create an environment that promotes active, healthy ageing among older people. It recognised that many urban elements in Ermua and its surrounding area were designed in and for another demographic context. Accordingly, this project was aimed at rethinking and reassessing the town, seeking to build the capacity and, therefore, the well-being and contribution of its older people.

OVERVIEW

OBJETIVES

In response to the ageing of the world's population and rapid urban development, Ermua Town Council focused the project's action on encouraging the full participation of older people in community life and promoting healthy, active ageing. The main objective of this project was to make the town a more accessible and inclusive urban environment for older people with diverse needs and capacities.

BACKGROUND

According to Eustat data, almost 500,000 people were over the age of 65 in the Basque Country in 2020. This means that, in that year, 23% of the population in the Basque Country were older people, a percentage that is expected to be 30% by 2029. In the specific case of Ermua, it has a population of around 16,000 inhabitants, of which **almost 4,000 (around 25%) are over the age of 65**.

The physical and social environment of towns, cities and communities has a significant impact on the way in which the population ages and the opportunities that can be offered. Like other municipalities in the Basque Country, Ermua experienced a strong increase in population throughout the 1960s and 1970s. During that period, thanks to a thriving metallurgical industry, this town transformed from its traditional livestock and agricultural activities and strengthened its industrial fabric. But the situation is different today. Although industrial activity continues to be an important pillar of the municipality, **Ermua's population is getting older** and the generational changeover has stagnated. Measures need to be taken to make towns and cities more age-friendly environments.

DESCRIPTION

Ermua joined the Global Network for Age-Friendly Cities and Communities in 2018. It was promoted by the World Health Organization (WHO) in 2010, in response to the rapid ageing of the population and with the aim of connecting cities, communities and organisations around the world with a common vision of making their environment a better place in which to age with dignity and quality. Being part of this network only demonstrated the town council's commitment to listening to the needs of its ageing population and working in partnership with older people and across all sectors to create more age-friendly physical and social environments.

Specifically in Ermua, this was an initiative focused on local action, which **comprehensively tackled** the aspects that affected the day-to-day life of its older citizens. It did so by promoting the participation of older people, taking their needs, opinions and proposals into account in the process of analysing and improving the town in various areas, with the ultimate aim of promoting healthy, active ageing.

The Euskadi Lagunkoia Sustraietatik initiative was promoted by the Department of Employment and Social Policies of the Basque Government, which adapted the initiatives of the World Health Organisation to the situation in the Basque Country. Within this framework, the Strategy and Action of Ermua Town Council set out to help make Ermua an **attractive, open and participatory town to live in**, a town where people feel integrated and can develop fully in freedom and on an equal footing, through improvement, innovation and sustainable development. Older people represent a significant and at the same time vulnerable segment of Ermua's population. For this reason, the town council saw the need to create a more concrete Strategic Plan, focused specifically on older people, in order to offer quality public services that respond to their needs and expectations.

In 2016, Ermua Town Council began the Age-Friendly Town Project, carrying out the first phase by carrying out an assessment of the municipality. During 2018, several actions and activities were carried out aimed at forming a Steering Committee, which would be the specific body responsible for implementing the urban transformation measures and proposals.

A number of mechanisms were put in place to involve older people in carrying out the project, together with technical professionals, local and municipal political representatives and other community actors. The different working sessions that were held revolved around **eight main lines of action**: (1) transport, (2) housing, (3) participation and the social fabric, (4) respect and inclusion, (5) citizen participation and employment, (6) communication and information, (7) health and social services and (8) outdoor spaces and buildings.

The Steering Committee is currently made up of 16 people, 13 of whom are older people, one politician representing the local council and two technical staff from the social services. Three of them are under 60 and most of them are women (10 people).

Fig 1 Euskadi lagunkoia sustraietatik, an initiative promoted by the Department of Employment and Social Policies of the Basque Government and set up by the Matia Foundation.

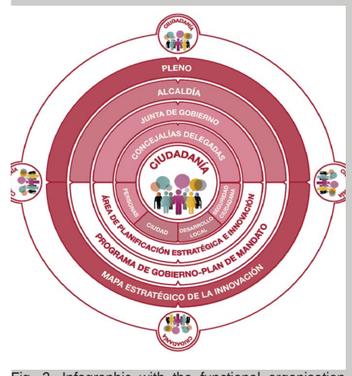


Fig. 2. Infographic with the functional organisation chart of Ermua Town Council.

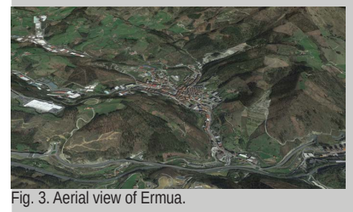


Fig. 3. Aerial view of Ermua.

Fig. 4. Ermua Town Council.

Fig. 5. Ermua, Age-Friendly Town in the "Global Network for Age-friendly Cities".

Fig. 6. Web-based communication platform.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

During 2019, the Steering Committee worked on devising the Action Plan, and held various sessions to find answers or alternatives to the needs and difficulties detected in the assessment phase with groups of people over the age of 60 or their carers.

RESULTS

In 2021, the Steering Group of the "Ermua, Age-Friendly Town" project submitted the **proposals for improvement** that it had drawn up to make the town a friendlier and more accessible place for the enjoyment of everyone. Proposals were collected at various working sessions to draw up the Action Plan for the "Ermua, Age-Friendly Town" project. As a result, the Steering Committee submitted **more than 70 actions** for improving and promoting the municipality. These proposals include:

- Encouraging the use of healthy parks in the town by making them more dynamic and attractive.

- Highlighting the existing public toilets and installing more in the Okin Zuri area.

- Improving and/or facilitating access to the health centre.

- Advocating keeping bus shelters in good condition.

- Providing public car parks in certain areas of the municipality.

- Increasing information on available resources for adapting housing and promoting autonomy in the home.

- Facilitating adaptation to technological changes in the workplace.

- Encouraging the participation of older people in municipal initiatives.

- Facilitating the understanding of the information provided by the administration.

- Making it possible to provide occasional assistance for elderly people in situations of vulnerability.

Once the phase of comparing and defining actions and alternatives had been completed, the final Action Plan was drawn up. In addition, the "Ermua, Age-Friendly Town", Steering Committee launched **various initiatives to raise the profile of this group** in the municipality and facilitate their day-to-day lives. In 2020, it was responsible for designing a healthy park with various elements for older people to keep them active, it created a telephone directory of reference and emergency numbers in magnet format, which was sent to all households, it promoted celebrating International Day of Older Persons on October 1, and disseminated information on aid for medical treatment and pharmacological products.

PROCEDURE

As far as methodology was concerned, the Ermua Age-Friendly Town project was structured in **four stages**: planning, implementing the Plan, evaluating the processes carried out and continuous improvement. This methodology was established to enable Ermua to adapt its structures and services to the needs of its oldest community.

In 2016, a campaign was carried out to attract participation in the project. A study of secondary sources, statistical analyses and a consultation on significant documentation was carried out indirectly to understand the social and generational situation in Ermua. A number of personal interviews were also carried out with professionals in different departments to find out their degree of friendliness towards the municipality and to learn about aspects and specific features of their day-to-day work with older people.

People over the age of 60 were invited to take part in the whole project, trying to identify significant people in the municipality's different neighbourhoods, people over the age of 60 who were taking part in other community resources.

In 2017, local groups emerged from the "**campaign to attract participation**" phase and 4 distinct groups were formed. Two groups of older people, one group of carers and one group of service providers. Work was carried out with each of these groups on the 8 main lines of action, with the aim of identifying positive aspects, needs and areas for improvement. The information gathered in these sessions was used to draw a series of conclusions that were passed on to the different town council departments. These conclusions and areas for improvement identified will be used to create the Action Plan.

ASSESSMENT

LESSONS LEARNED

The participation of the people who took part in the project on a voluntary basis deserves to be mentioned and appreciated, particularly the people in the Steering Committee, for their interest, effort and continued participation in the project. Although the final Plan will ultimately be carried out by teams from the different municipal departments, it is a valuable lesson to note that urban changes will be the result of a "bottom-up" process. It was the **older citizens themselves** who highlighted Ermua's urban problems. Similarly, many of the actions and initiatives included in the final Plan will be the result of ideas proposed by citizens through the Steering Committee.

This practice is an example of how it is possible to involve citizens in the urban transformation of their towns and cities by means of a serious, continuous project over several years, avoiding other formulas in which only the local council's municipal team is involved in drawing up and defining the lines to be followed.

GOVERNANCE AND TRANSFERABILITY

Throughout this project, Ermua Town Council continuously tried to ensure that its older citizens were at the centre of the Plan. In addition, new resources were made available in the municipality to encourage the interest of people over the age of 60 in this project. Grants were offered for refurbishing and adapting homes and acquiring domestic equipment, for those people who do not have sufficient financial resources. The Retirement Home has also been developed, with a chiropody service and a cafeteria with special prices for older people, as well as the possibility of taking part in leisure activities such as dances and board game competitions. The Ermua Mugi initiative, a free personalised physical-sports advice service, was implemented, along with the Nagusilan community resource, an association aimed at assisting older people who live alone in their homes, residences and hospitals.

SUSTAINABILITY

The sustainability of this action is mainly due to its **social nature**. Ermua Town Council decided to tackle a problem that will affect a large number of Spanish towns and cities in the next few decades. A town or city that is better adapted to the needs of the older population is a town or city that is capable of incorporating older people into urban life and making the most of all the **contributions that this increasingly numerous social sector** is able to offer.

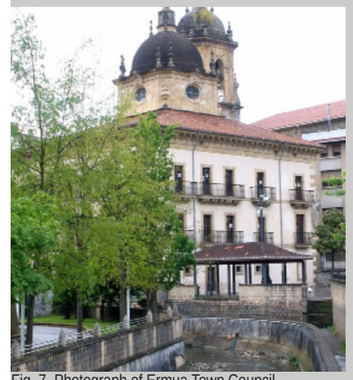


Fig. 7. Photograph of Ermua Town Council.

Fig. 8. Logo of the Global Network for Age-Friendly Cities and Communities.

Fig. 9. Photograph of the Steering Committee of the Age-Friendly Town project.

Fig. 10. The eight lines of action on which the working sessions were held between 2016 and 2017.

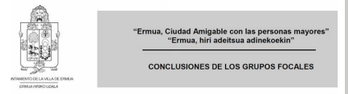


Fig. 11. Header of the document containing the conclusions reached by the local groups.

SUMMARY

This document is aimed at promoting **gender mainstreaming** in all phases of the urban planning process, from designing, taking part in, planning, implementing, evaluating and monitoring it. It is aimed primarily at technical staff involved in creating new urban areas or regenerating existing ones, such as council staff, architects, urban planners and property developers, and other experts on urban environments.

OVERVIEW

OBJETIVES

The primary objective of the document is to provide a supportive framework for improving technical capacity, training and awareness in gender mainstreaming in urban planning and architecture, in order to incorporate the goal of gender equality in urban spaces and urban planning. Among other objectives, it is aimed at:

- Improving the **quality of people's lives** with care responsibilities and, in particular, taking the spatial and urban needs of women in vulnerable situations into account, including their economic constraints.

- Reducing the time spent by women travelling to carry out everyday tasks.

- Highlighting the problem of perceived insecurity in public spaces and raising public awareness of its effects.

- Creating infrastructures, urban spaces and facilities that better respond to the needs of people, based on their gender roles and physical characteristics.

- Ensuring women's safety in the immediate vicinity of their homes.

- Highlighting and promoting social awareness about the importance of applying the gender perspective in urban planning so that towns and cities are also for women.

- Involving women's associations, technical staff with expertise in gender issues, councillors, and specific equality units, divisions and departments in citizen participation processes.

The measures proposed have a **demonstrative effect** and are aimed not only at playing an educational and exemplary role, but also at making the gender perspective applied to the field of urban public policies practical and more visible.

"Gender-sensitive urban planning is not urban planning that is exclusive to women; it is urban planning that proposes designs and plans that take the roles that have been assigned to women, currently also carried out by men, into account."

BACKGROUND

Traditionally, priority has been given to productive tasks and economic activities in the design of cities, as opposed to reproductive and care tasks which, in most cases, continue to be carried out mainly by women, and therefore it is they who are excluded from the urban model. Planning public spaces, pedestrian routes and transport networks from a gender perspective and based on gender roles will make it possible to **reconcile the daily tasks of care and paid work** in minimum time, in the required time slots, under conditions of comfort and safety.

DESCRIPTION

The 'Set' is structured around **seven thematic areas**, although all of the aspects are cross-linked in an integrated manner in order to multiply their positive effects. Attention is paid to the city model, perceptions of safety, public spaces and accessibility, mobility, housing, representativeness, urban signage and citizen participation.

In each of these areas, the 'Set' defines the problem, sets the objectives and gives examples of actions, which are not intended to be an exhaustive list, but rather non-binding recommendations or guidelines, which can be complemented by other actions. The proposals can be applied to urban regeneration and refurbishment actions, and to the creation and consolidation of new city models for all aspects that have an impact on the urban environment. It also acts as a guide for designing public spaces and buildings from a gender perspective.

The changes proposed range from **small, straightforward changes to more complex actions**. These are changes that affect urban space at all scales, from homes and their immediate surroundings, to neighbourhoods and the rest of the town or city. The issues that were analysed. for which solutions were proposed, included:

- The incompatibility and remoteness of location between housing, employment and daily urban activities results in a significant consumption of time and money resources, making reproductive and care tasks difficult.

- Recent urban planning often results in single-use neighbourhoods, with large spaces with little character, few services and shops, no clear routes and large, oversized traffic avenues that can lead to a perception of urban insecurity that restricts citizens' access, use and appropriation of the town's or city's public space.

- People have different needs with regard to urban space stemming from the gender roles they assume in their daily lives. The plight of women is often only brought to light when social exclusion, poverty, job insecurity, the digital divide and gender-based violence are analysed, but inequalities in other areas of everyday life that do not involve vulnerable situations, **such as work-life balance** or different use of space based on gender and physical characteristics, are overlooked.

Fig. 1. Cover of the Spanish Urban Agenda, Valencia.

DATA

LOCATION
Valencian Regional Government.

ACTORS
· Urban process managers.
· Economic Planning and Urban Regeneration Service.
· Directorate General for Housing, Rehabilitation and Urban Regeneration.

DATES
· 2017 - present.

AREA OF ACTION
Valencian Regional Government.

SOURCES
Website of the Regional Ministry of Territorial Policy, Public Works and Mobility:
https://politicaterritorial.gva.es/

PHASE
In the process of implementation.

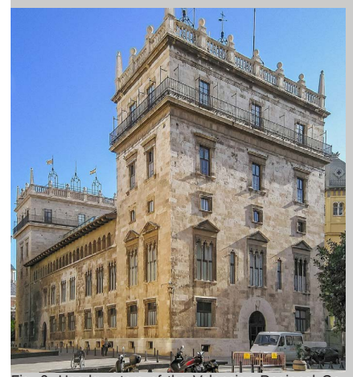


Fig. 2. Headquarters of the Valencian Regional Government.

GENERALITAT VALENCIANA

Fig. 3. Valencian Regional Government.

Fig. 4. Valencian flag.

Fig. 5. Set to introduce the gender perspective in the urban process.

Fig. 6. Awards ceremony.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Favorecer la ciudad de proximidad.

5.2 Potenciar modos de transporte sostenibles.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

- The design of the mobility infrastructure also clearly prioritises work trips over any other reason for travel, such as **trips with children or carrying loads** or off-peak travel. In short, women find it more difficult to travel to combine paid work with domestic work and have more limited accessibility to public transport.

- Residential supply and housing types also often follow traditional family structures of four or five members (young couple with children), which does not fit in with the many different realities that exist today.

The measures proposed include:

- Improving the quality of life of people who are responsible for the care of others. Examples of actions proposed are the densification and reuse of urban land, encouraging neighbourhood planning, providing women with access to public services, creating small **social facilities** within walking distance of housing, and a small, local network of public spaces.

- Ensuring the perception of safety with good lighting; visibility and signage; giving women autonomy and freedom to use the city under the same conditions as men and encouraging municipalities to work on identifying places where women feel unsafe; reducing areas with no activity; increasing the feeling of safety on public transport and in underground car parks and identifying those places that are perceived by women as unsafe.

- Creating infrastructure, urban spaces and facilities that meet people's needs based on their gender roles and physical characteristics; facilitating work-life balance and improving the compatibility of schedules and locations, and resolving accessibility in urban environments; creating **spaces for breastfeeding,** public toilets for children and the elderly, more entertainment spaces for children, well-designed street furniture, making pavements wider, providing ramps where necessary, pedestrian crossings and bicycle lanes away from pavements.

- Reducing travel time to carry out daily tasks; improving frequencies, timetable reliability and fares, as well as ensuring safety on public transport and moving from a linear transport model to one that responds to people's needs in terms of flexibility and multiple timetables.

- Adapting offers to different family structures, applying housing design criteria that facilitate and promote the sharing of domestic tasks, ensuring safety in the area around housing, and facilitating access to housing for women from vulnerable groups, by means of public policies.

- Highlighting and raising awareness about the importance of applying a gender perspective to urban planning, enhancing the symbolic presence and representation of women in towns and cities, promoting the use of non-discriminatory visual language and eradicating the use of stereotypical images on urban elements.

- Encouraging men and **women to take part as citizens** on issues of equality and gender perspective.

RESULTS

Promoting the obligation to integrate a gender perspective into all phases of the urban planning process, from design, participation, planning and implementation to evaluation and monitoring, means improving the quality of life of all citizens.

PROCEDURE

The main objectives of the **Gender Roundtable**, which was created by the Regional Ministry of Housing, Public Works and Territorial Planning to implement urban policies with a gender perspective, include raising awareness in the sectors involved in urban management, assessing the current state of the issue and identifying niches for collaboration, and implementing coordinated legislative reforms and encouraging actions in the design of urban spaces. The document is a synthesis of some of the analyses and proposals in the existing literature on the subject. The bibliography and references appear in the guide. The target audience of the document are the technicians involved in the processes of creating new urban areas and regenerating existing ones, whether they are teams from city councils, architects, urban planners, property developers or other experts on urban environments.

REGULATORY FRAMEWORK

State legislation:

- The **Spanish Constitution** of 1978. Article 14 on the right to equality and non-discrimination on the grounds of sex. Article 9.2 on the obligation of public authorities to promote the conditions for real and effective equality of individuals and the groups of which they are a part.
- Organic Law 3/2007 of March 22, on effective gender equality.
- Law 30/2003 of October 13, on measures to incorporate gender impact assessments into regulatory provisions drafted by the Government.

Regional legislation:

- Law 9/2003 of April 2, 2003, of the Valencian Regional Government on Gender Equality.

ASSESSMENT

LESSONS LEARNED

The effective cross-cutting implementation of gender mainstreaming in urban practice needs to be approached in a multi-scale, interdisciplinary and participatory manner.

GOVERNANCE AND TRANSFERABILITY

This action could be perfectly replicable in any other territorial and regulatory context and **could be applied directly**.

SUSTAINABILITY

Although the main impact of the action is social and directly linked to gender equality, the fact is that implementing the proposed measures is relevant to all of the pillars of sustainability. If we talk about towns and cities of proximity, accessible mobility and safety, we are also talking about actions that promote economic activity and have a favourable impact from an environmental perspective. Moreover, by the very nature of the action, its cross-cutting, integrated vision ensures that it is in line with the SDGs and **goals of the Spanish Urban Agenda.**

Fig. 7. Relationships in the city.

Fig. 8. Género (Gender) logo.

Fig. 9. Actions.

Fig. 10. The Valencian Regional Government presents the 5th Gender Perspective Awards.

Fig. 11. Set 07. Logo of the document.

URBAN
ECONOMY

7 STRATEGIC GOAL
PROMOTE AND ENCOURAGE THE URBAN ECONOMY

SPECIFIC GOALS

7.1. STRIVE FOR LOCAL PRODUCTIVITY, JOB CREATION AND THE DYNAMISATION AND DIVERSIFICATION OF ECONOMIC ACTIVITY.

- Proximity food strategy in Valladolid.
- Restoration of Canfranc station.

7.2. PROMOTE SUSTAINABLE, HIGH QUALITY TOURISM AND KEY SECTORS OF THE LOCAL ECONOMY.

- Restoration of the village of Ruesta (Zaragoza).
- Network of smart tourism destinations.

DATA

LOCATION
Valladolid, Castile and León.

ACTORS
· Valladolid City Council.
· Department of the Environment.
· Government of Castile and León
· Valladolid Provincial Council.
· Mercaolid.
· Urban Community of Valladolid.
· Food and Agriculture Organisation (FAO) of the United Nations.
· University of Valladolid (UVA).
· Castile and León Agricultural Technology Institute (ITACyL).
· Council of Organic Agriculture for Castile and León (CAECyL)

DATES
· January 10, 2017: Participatory drafting process.
· September 10, 2018: The decision to join the Milan Urban Food Policy Pact was unanimously taken.
· March 2018: First draft:
· May 2019: Formal approval of the strategy.

AREA OF ACTION
Valladolid (197,9 km²).

SOURCES
Alimenta Valladolid.
Valladolid Food Strategy:
http://www.alimentavalladolid.info/wp-content/uploads/2019/05/EstrategiaAlimentariaValladolid.pdf

PHASE
Implemented.

SUMMARY

Throughout 2017 and 2018, the city of Valladolid and its surroundings engaged in a process of reflection on the local agri-food system, which made it possible to launch a participatory process for drawing up its own **food strategy.**

This process did not emerge spontaneously, but was supported by the various social movements that, even though they were not coordinated, had been working for food sovereignty in the region for years. These included the ten or so consumer groups that set up short distribution channels; the half-dozen community allotments spread throughout the city, the allotments for the unemployed, the allotments for the elderly and the school allotments, all promoted by the City Council, which are putting agroecological culture at the centre of urban life; the various neighbourhood organisations involved in improving the food and living conditions of their residents through solidarity; the emerging association movement among local agro-ecological producers; and the research carried out by the University of Valladolid on understanding the social metabolism of food and how social economy and solidarity enterprises operate in the city.

These are some of the ingredients and protagonists on which this project has relied to achieve its objectives.

OVERVIEW

OBJETIVES

The various actions carried out were aimed at promoting healthy eating associated with local, sustainable production, including the following objectives:

- **Learning about** the social perception of food and the sustainability of the local agro-food system.
- Determining the most important social actors in terms of shaping the local agri-food system, and the social, economic and relational networks that support and influence them.
- Building a **work plan**, in a participatory manner, to promote the sustainability of food flows in Valladolid and its area of influence, by relocating them.
- Carrying out a participatory process to prioritise challenges and put forward proposals for action.
- Fostering debate and incorporating food sovereignty and equity into the social agenda, and promoting citizen involvement in local food policies.
- Creating a working process with local stakeholders to set out the food policy guidelines for the city.
- Establish stable, recognised food governance **structures and mechanisms at different scales.**
- To raise public awareness about the process, and the values of sustainable, local food.

BACKGROUND

The evolution of the food metabolism in Valladolid has been very sensitive to the recent economic situation. After the boom phase, the tonnage of direct food consumption fell by 14% in the crisis period (from 758 kg/inhabitant in 2009 to 660 kg/inhabitant in 2015). The sharpest falls occurred in the most severe years of the crisis, coinciding with a significant increase in unemployment and job insecurity in the city. If we consider the whole food chain (and not just households), the level of overall metabolic efficiency is worrying. It is estimated that, on average, one out of every three tonnes that enters the food chain in Valladolid as food is lost in the process or discarded.

The contribution of the production and distribution stages to this inefficiency is still quite considerable, with almost one tonne out of five not making it into the shopping basket of Valladolid's households. If we bear in mind that around 35% of household food waste is food in perfect condition, in Valladolid we would be talking about approximately 15 million kilograms of edible food waste, or 7.3% of all the food consumed in the municipality in 2016.

DESCRIPTION

The Plan arose from the need, obligation and commitment we all have in terms of getting involved in the main areas of action of Valladolid's agri-food strategy, including:

- Making the local food chain more dynamic and structured. **Public entities** and special purpose vehicles need to take on a central role in the horizontal and vertical structuring of the food supply chain, and in the structuring between the food supply chain and other actors not directly linked to it.

- Promoting diversified organic production. The need has arisen for instruments to facilitate **access to land** for sustainable cultivation in the metropolitan region of Valladolid. Proposals have been put forward to encourage young people to take up organic farming, and to promote and support conventional local production converting to organic farming.

- Diversifying commercial channels and points of sale of local and organic food, with a view to broadening the diversity of consumer profiles that benefit from them and improving physical accessibility to local and organic produce.

- Supporting the distribution and marketing of organic and local food. This area has been considered vital for improving economic (by reducing transport costs) and physical accessibility to **local and organic produce**. Firstly, rebates on or reductions in municipal taxes have been mentioned for establishments that sell local and/or organic food. Secondly, there was a broad consensus on the need to set up collection and distribution centres for local produce.

Fig. 1 Cover of the Valladolid Food Strategy document.

Fig. 2. Poster of the Launch Day in April 2018.

Fig. 3. Graphic depicting the Working Group.

Fig. 4. Alimenta Valladolid.

Fig. 5. Graphic depicting the consumption of local and seasonal products.

Fig. 6. Ecomarket in Plaza España, Valladolid.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

- Raising awareness and providing information about organic and local produce. There was a broad consensus on the need to raise the profile of local and organic food and their distribution networks. Information is required about the traceability and safety of local and organic food and its qualities.

- Accessibility to quality food for disadvantaged social groups.

RESULTS

The Steering Committee that was in charge of drawing up the Valladolid Food Strategy took the option of working on its implementation at two speeds:

· First, by implementing the set of actions that they believed could be launched in the short term, even before the strategy was finalised and formally approved. They called these initiatives "**Mature Fruits**" and a preliminary forecast was made to roll them out over the 2018-2020 period.
· Secondly, a medium-term action plan was drawn up for rolling out the strategy as a whole in the 2019-2023 period.

So far, the following actions have been undertaken:

- The Ecomarket in Plaza España was the first action promoted with the aim of facilitating access to healthier, sustainable, local food. It takes place every second Tuesday of the month in Plaza España.
- The shared workshop will be a space where products from Valladolid's allotments are transformed and healthy foods, some of which are gluten-free or traditional, are produced.
- **Vallaecolid** is an association of producers, processors and organic shops that brings together the producers in the province and surrounding areas and manages the ecomarket, the workshop and the collection centre.
- The Collection Centre project is aimed at structuring the production sector and promoting the distribution of organic and local foodstuffs.
- The Health and Right to Food Campaign is an awareness-raising and socio-community advocacy programme on health and the right to food focused on working with social action centres and social organisations.
- A commitment is being made to introduce healthy, sustainable food in schools, with work being carried out with the Department of Education to include healthy, sustainable food criteria in the contracting specifications for nursery schools.

PROCEDURE

In October 2015, in the context of the Milan Expo "Feeding the Planet, Energy for Life", the Milan Urban Food Policy Pact was signed, recognising the need to make comprehensive progress in developing sustainable food policies at an urban level. On January 10, 2017, the municipal plenary of Valladolid **unanimously approved** an agreement that laid the foundations to start the participatory process for drawing up the Valladolid Food Strategy, adhering to the Intervegas Pact for food sovereignty, environmental education and sustainable development. While these assessments were being carried out, on July 13, 2017, a call was issued to launch the participatory process for drawing up the food strategy.

On 10 September 2018, the plenary session of Valladolid City Council unanimously adopted the decision to join the Milan Urban Food Policy Pact, becoming the 177th city in the world to sign up. The proposal for the Valladolid Food Strategy, prepared by the Steering Committee, the first draft of which had been presented to the public in March 2018, was finalised in October 2018, pending approval by the Valladolid City Council's Governing Board.

It was formally approved in May 2019. On Friday, October 2, 2020, a video of the preparation process of the Valladolid Food Strategy was presented at a meeting of the Cities for Agroecology Network.

ASSESSMENT

LESSONS LEARNED

The current health crisis highlights the importance of good nutrition as a preventive health strategy. It is therefore crucial that **public authorities** focus their efforts on providing adequate food to the entire population, which is healthy, sustainable, local and seasonal.

The food governance architecture set out in the Strategy pursues two key objectives. Firstly, to make it an effective tool for ensuring the **right to food**. Secondly, to ensure the efficiency of the specific policies that emerge from it and, therefore, make the best possible use of public resources and the efforts of social and economic actors.

Consequently, the actors who have led the Valladolid Food Strategy process have, from the outset, been very aware of the need to create a comprehensive multi-actor and multi-level governance framework, with an approach that is in line with the first pillar of the Milan Pact, which is food governance. They set out a progressive roadmap from the outset.

GOVERNANCE AND TRANSFERABILITY

As far as social participation is concerned, different spaces, formats and methods have been combined, making it possible to incorporate the great wealth of multi-actor deliberative work, which has included people from different social and economic entities and public administrations.

To this end, 417 people have taken part online, a steering committee has been set up and workshops have been organised on access to land, food culture, marketing, distribution and waste.

SUSTAINABILITY

The city of Valladolid has proven to be a dynamic capital from the point of view of social transformation towards social, sustainable and fair economic models. Although these models may seem new, they have been moving towards agroecological, food sovereignty, social and environmental justice models for decades.

Sustainability is aimed at ensuring that food is produced and consumed in a way that does not impede availability and access for present and future generations. This relates to the risk of deterioration of the productive base due to overexploitation or bad practices in the exploitation of natural resources. In this sense, the challenge is to be able to meet the food needs of humanity while **preserving the environment**.

That is why organic and local food is being promoted in Valladolid, highlighting, in order of importance: the environment, health and well-being, the economy and community development, food security and social justice, links between town and country, and learning about social and cultural issues.

Fig. 7. Photograph of the first Ecomarket in Plaza de España.


Fig. 8. Ecomarket in Plaza España.


Fig. 9. Ecomarket in Plaza de España, Valladolid.

Fig. 10. Producers at the Valladolid Ecomarket.


Fig. 11. Producers at the Valladolid Ecomarket.

DATA

LOCATION
Canfranc, Aragón.

ACTORS
· Government of Aragon: Department of Territorial Planning.
· Government of Aragon: Directorate-General for Urban Planning.
· Government of Aragon. Suelo y Vivienda de Aragón, S.L.
· Ministry of Transport, Mobility and Urban Agenda: ADIF.
· Canfranc Town Council.

DATES
· 2016. Drafting of a stand-alone amendment of the Canfranc General Urban Development Plan and Partial Plan for the Sector.
· 2017. Approval of the General Urban Development Plan and Partial Plan.
· 2018 (June). Start of work on the new passenger station and new railway yard. (Put into service in 2021).
· 2018 (September). Start of the work on the sanitary building.
· 2019 Start of the work on the exterior refurbishment of the main building.
· 2020 Start of the urban development works in the sector.
· 2021 (July) Start of the interior refurbishment of the "International Station" building for use as a hotel.
· 2022 (December) Expected completion of all actions.

AREA OF ACTION
199.000 m².

SOURCES
Government of Aragon, Canfranc Station website:
https://www.estaciondecanfranc.es/

PHASE
In progress.

SUMMARY

The main objective of the project is to recover the **tangible heritage** of Canfranc Station and the collective memory of its role in history. To this end, since 2016, the aim has been to fill the space with life, create a leisure area and boost tourism.

In this sense, urban uses such as commerce, housing, hotels, leisure, etc. could be considered, thereby recovering the Arañones esplanade for public use, preventing new buildings from appearing and incorporating the existing, fragmented railway elements into the design of the common areas: parks, squares, roads, etc., bringing the space back to life as a new tourist attraction for the area.

OVERVIEW

OBJETIVES

The aim of the action is to ensure that the historic station's railway function is preserved and to make urban uses possible on land that is not needed for this.

To this end, in 1994, an agreement was signed by the Government of Aragon, RENFE and Canfranc Town Council, which stated that the Canfranc railway facilities were too large for any operating scenarios. It was recognised that a large part of the land (199,000 m2 in total) could be released from railway use for use in a concerted urban development project, with the objective of **completely refurbishing** the site.

This agreement was complemented by another in 2005, this time signed by the Ministry of Development, the Government of Aragon, Canfranc Town Council, ADIF and Suelo y Vivienda de Aragón (SVA), by means of which the parties committed themselves to the objective of jointly promoting the comprehensive refurbishment and urban development of the Los Arañones railway esplanade.

BACKGROUND

In 1847, **Spain finalised its first draft General Railway Bill** with a railway network, which provided for communication with France via Irún and Portbou, at either end of the Pyrenees. In 1853, representatives of Aragonese society signed the manifesto "Los aragoneses a la nación española", a document that argued the advantages of a route connecting Aragon with France through Zaragoza - Canfranc, which would not be included in railway legislation until 1882. In 1907, a bilateral Spanish-French agreement was finally reached that the international station would be located in Canfranc.

In 1908, drilling began on the Somport tunnel (almost 8 km long), and was completed in 1915, the year in which work began on the creation of the railway esplanade. In 1917, work began on the two slopes that form the valley to contain avalanches and landslides. And in 1922, work began on the International Station, based on a project by the engineer Fernando Ramírez de Dampierre, which was completed in May 1928 and inaugurated in July of the same year.

The railway line suffered several interruptions in 1936 and 1944, and in 1970. **L'Estanguet bridge**, about 15 km from the border, collapsed and was never repaired, as the line was considered to be economically unfeasible.

50 years on from the accident, communication with France has still not been re-established, and it is still operating solely as a station on the Zaragoza - Canfranc line.

DESCRIPTION

The project, which began in 2016, aims to **fill the space with life**, create a leisure area and boost tourism. The entire complex is mainly made up of the following elements:

- **Canfranc International Station**: this is a 9,000 m2 building (3,000 m2 on each of its three floors). It is being refurbished for use as a hotel, with a capacity for 194 rooms, distributed over the two upper floors, with the ground floor housing the areas for communal use: kitchens, restaurants, conference rooms, water area, changing rooms, etc. This building, which has been declared an asset of cultural interest, will always remain in public ownership and will be managed on a leasing basis.

- The two transfer halls, located on the east side of the main building, are primarily intended for railway use (new station and platforms/railway yard). Part of the west hall will be refurbished for tertiary uses (leisure, hospitality, etc.).

- The building located on the east side of the **Arañones esplanade**, which has been converted into the new station.

- The new railway yard, consisting of three tracks for passengers and three for freight.

- The locomotive depot, which will be one of the three subsidiary sites of the Aragon Railway Museum, and will become a municipal building, although it is intended that it will be managed on an inter-administrative basis (town council, Government of Aragon and the Spanish Railways Foundation). At the moment, it is the temporary home of part of the **historical collection of passenger carriages** (mostly from the Spanish Railways Foundation (ADIF plus RENFE).

- The "Cocheras Francesas" building, or sanitary building, has already been refurbished for use as a Reception and Information Centre for the French Way of St. James.

- The three small access pavilions (about 80 m2 each) and the two engine drivers' sleeping quarters (French and Spanish) are used for equipment.

- The carriage shed, the postal building, the curved warehouse and the French loading bays will be used for residential purposes (maximum capacity of 133).

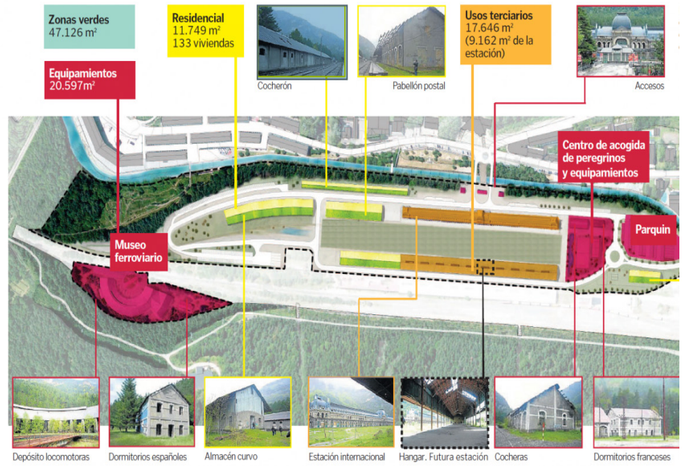


Fig. 1 General plan of the action.

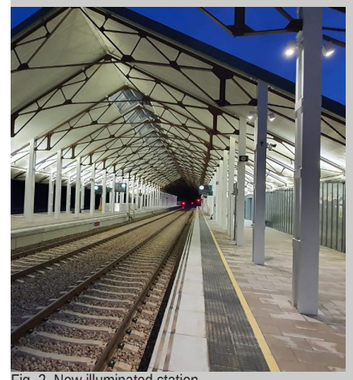


Fig. 2. New illuminated station.

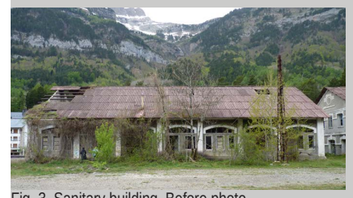


Fig. 3. Sanitary building. Before photo.

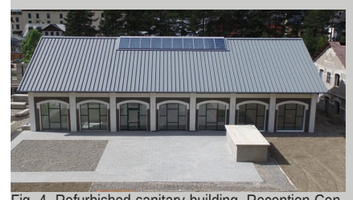


Fig. 4. Refurbished sanitary building, Reception Centre for Pilgrims.


Fig. 5. Historic aerial image.


Fig. 6. Old aerial image.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.2 Promote sustainable means of transport.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

RESULTS

Pursuant to the aforementioned agreements of 1994 and 2005, three **Partial Plans** were drawn up to develop the 199,000 m2 of the esplanade (in 1995, 1998 and 2001) and an amendment to the General Plan (in 2008).

In all cases, the proposals were to demolish all the existing buildings dating from 1928, except for the “International Station” building, and to create a large “site” on which to build between a minimum of 440 and a maximum of 800 homes, depending on the different proposals. None of them were approved.

After many more ups and downs and with the Government of Aragon having carried out structural consolidation work and the renovation of the roof of the main building, which had been listed as an Asset of Cultural Interest in the category of Monument in 2002, the Autonomous Government that came into power after the 2015 elections decided to take on the role of developer of all the actions required to refurbish the entire railway area, using non-economical criteria. To this end, in 2016 a new amendment to the Canfranc General Urban Development Plan and a Partial Plan were drafted by staff of the regional administration, both of which were finally approved in mid-2017.

The criteria for these documents were mainly to ensure the functionality of the railway, including the restoration of the connection with France, to conserve and refurbish all of the existing historic buildings, and to prevent new buildings not related to those that were built in 1928 being built, in order to preserve the consolidated “urban landscape”. Therefore, in order to enable the implementation of urban uses (housing, commerce, hospitality, leisure), the capacity was limited to that of the **pre-existing buildings**, which were intended to be refurbished (133 homes, as opposed to the 440-800 proposed).

After the planning instruments were approved, the projects for the new station and the urban development project were drawn up. And the execution of all the works was put out to tender, charged to the budgets of the Government of Aragon. The contract was awarded in 2018 (to Canfranc UTE: Acciona más Avintia). The work on the exterior refurbishment of the main “International Station” building and the railway section (the new railway yard and station) was started in the same year, and was completed and came into service on April 15, 2021.

Work is currently underway on the interior refurbishment of the main building for use as a hotel and development works, all of which will be completed by the end of 2022.

PROCEDURE

All of the procedures and **management systems were public in nature**, involving all three levels of administration: state, regional and local. All of the land involved and the investment required to carry out all of the actions envisaged is also public property.

The land, originally owned by ADIF has been transferred to the Government of Aragon (through SVA) for urban use (132,000 m2), in accordance with the agreements.

In return, ADIF has received the works on the railway (new tracks and new station), which have been fully paid for by the Government of Aragon. The land earmarked for roads, green areas and facilities will be transferred by the Government of Aragon to Canfranc Town Council, once the urban development work has been completed, notwithstanding the possible shared management of some of them, such as the future **Railway Museum**.

REGULATORY FRAMEWORK

RELATED POLICY AND LEGISLATION

- Amended Text of the Aragon Urban Planning Law (2014).
- Canfranc General Urban Development Plan. etc.
- Environmental Protection Act and Legislation on Railways.
- Other sectoral laws (roads, hydrographics, risks, etc.).

SECONDARY PLANNING AND URBAN DEVELOPMENT

- Partial Plan for the **detailed development** of the Arañones esplanade.
- Land Reparcelling Project.
- Project for Developing the Sector and the new railway yard.
- Construction projects to refurbish the main “International Station” building for the Pilgrims’ Reception Centre on the Way of St. James and the new passenger building.

ASSESSMENT

LESSONS LEARNED

Key lessons learned include the following:

- Acceptance and involvement of society as a whole in projects to recover historical, architectural and cultural heritage, **with no business objectives**.

- Capacity of the various administrations to promote and implement projects of high social value, with absolute complicity.

- Feasibility of economically unprofitable projects, as opposed to the failures of previous projects based on capital gains.

- Capacity to bring about significant economic returns (tourism, activity, employment) by promoting not-for-profit projects.

- Need to understand public projects as part of broader objectives. In this case, this is needed for the most essential goal, which is the recovery of rail links with France via Canfranc.

GOVERNANCE AND TRANSFERABILITY

The uniqueness of these actions reflects **their idiosyncrasies**, making it difficult to replicate them in similar situations in their entirety. Nevertheless, it is a good example of urban regeneration, refurbishment of buildings, urban planning and restoration of historical heritage with a clear integrated component.

SUSTAINABILITY

Sustainability comes in its environmental, economic and social aspects. As far as the environmental factor is concerned, the aim is to restore all of the existing buildings, and prevent the construction of new ones.

The economic argument is for the financial sustainability of the area by reviving this historical and cultural complex and having an impact on the important tourist activity in the area in a sustainable way. The social aspect comes from r**ecovering the memory** of the railway complex as part of the area’s cultural heritage.

Fig. 7. Old station foyer, future hotel.

Fig. 8. International Station building.

Fig. 9. New railway yard.

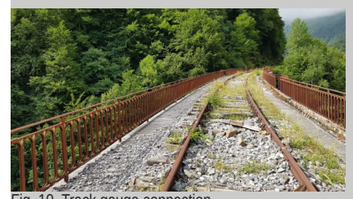


Fig. 10. Track gauge connection.

Fig. 11. Arañones esplanade.

DATA

LOCATION
Ruesta, Aragón.

ACTORS
· Government of Aragon.
· Head of the Prevention Service.
· Protection and Research Department of the Directorate General for Culture and Heritage.
· Ebro Hydrographic Confederation
· General Confederation of Labour.
· Sebastián Arquitectos.

DATES
· September 2017-February 2018.: Preparation of the plan of action.
· February 2018-2021: Implementation of the refurbishment work.

AREA OF ACTION
Ruesta (16.000 m²).

SOURCES
Tourism of Aragon:
https://www.turismodearagon.com/ficha/ruesta/

RECOGNITION
Hispania Nostra 2021 Award (Interventions on Territory or Landscape category).

PHASE
Completed.

SUMMARY

The project consists of restoring the municipality of **Ruesta**, a town in the Cinco Villas region in the north of the province of Zaragoza, in the natural corridor through which the River Aragon flows (crossed by the French Way of St. James). The construction of the Yesa reservoir was a determining factor in its history, flooding the valley's farmland, leading to the inevitable departure of the inhabitants of Ruesta, Tiermas and Escó, given the lack of their main means of production.

In order to correct this situation, an action plan was drawn up to restore and enhance the value of this settlement. Consequently, a number of actions were carried out on the dilapidated buildings (many of them at risk of collapse) to subsequently use them as urban camp sites to attract tourism to the area and begin to repopulate it. At the same time, the Way of St. James was restored as it passes through the town, and the main street and three chapels (San Jacobo, San Juan de Ruesta and San Juan de Sigüés) were also restored.

OVERVIEW

OBJETIVES

The objectives of this action to restore the urban centre of Ruesta were as follows:

- To recover and enhance the value of the urban centre of Ruesta.

- To revitalise, conserve and manage the heritage of this depopulated area. The main architectural landmarks within the town centre are the castle, the remains of the city walls and the church of Nuestra Señora de la Asunción. It also has a very important, rich collection of minor heritage, consisting of fountains, bridges and agricultural constructions.

- To promote cultural tourism and sustainable landscape.

- To preserve traditional ways of life in the village.

- To avoid the negative view of ruins and the perception of them as a dangerous landscape by means of action on the landscape and the visual appearance of the ruins.

BACKGROUND

In the early 1960s, the inhabitants of the municipalities of Ruesta, Esco and Tiermas had to abandon their homes due to the construction of the Yesa reservoir, which flooded their land. This special land, so close and yet so far away, suffered a sudden depopulation that would lead to a decline not only socially but also in terms of heritage. Ruesta is an almost unknown village, but it has a really important heritage, as well as being part of the French Way of St. James.

DESCRIPTION

The project arose from the need to revitalise, conserve and manage the area's **heritage.** Commissioned by the Ebro Hydrographic Confederation and the Government of Aragón, the Sebastián Arquitectos studio is responsible for refurbishing the ruined buildings in Ruesta.

To this end, based on the premise of accepting the ruin in its current condition, the plan is to empty the rubble and drain the interior of the plots, and to reinforce the walls and build a number of concrete beams (upper rings at the top of the walls) to prevent lateral movements and outline the village of Ruesta from the air.

Some of the buildings were on the verge of collapse, so it was necessary to strengthen them to avoid risks and relocate the Way of St. James by tidying up the town. So far, the works have been completed and some of the houses on Calle Centro have been refurbished.

The site has become a new **urban camping** area next to the pilgrims' hostel. This use arose as a result of the Master Plan, which was considered to be the most economically sustainable use at the present time and made it possible to strengthen the buildings structurally, restore the homes and prevent the urban fabric from disappearing. This solution was seen as a realistic alternative to the empty Spain phenomenon.

More specifically, in order to avoid a negative visual impact on the settlement, efforts were made to avoid installing metal cross bracing. They were replaced with wooden parts to complete the side jambs and the lintel, but resulted in a similar **structural reinforcement**. Therefore, although made of a different material, these wooden pieces are recognisable, similar to but different from the yellow stone, and, of course, they maintain the clean image of the historic stained glass windows of the Way of St. James.

Ultimately, the actions that defined the Master Plan for building ruins consisted of simple actions that involved cleaning, consolidating, reinforcing and draining the ruins, in order to finally allow **simple uses in the spaces created.**

Throughout the project, the route of the Way of St. James as it passes through the town was also recovered and the three chapels in the area were restored: San Jacobo, San Juan de Ruesta and San Juan de Sigüés.

RESULTS

So far it has been possible to recover the route of the French Way of St. James as it passes through this town. There is currently a hostel that provides accommodation for pilgrims and travellers. These are two old mansions that have been renovated: Casa Valentín and Casa Alfonso. In addition, three chapels have been restored, ruined buildings have been restored and the area has been turned into an attractive and **sustainable tourist attraction.**

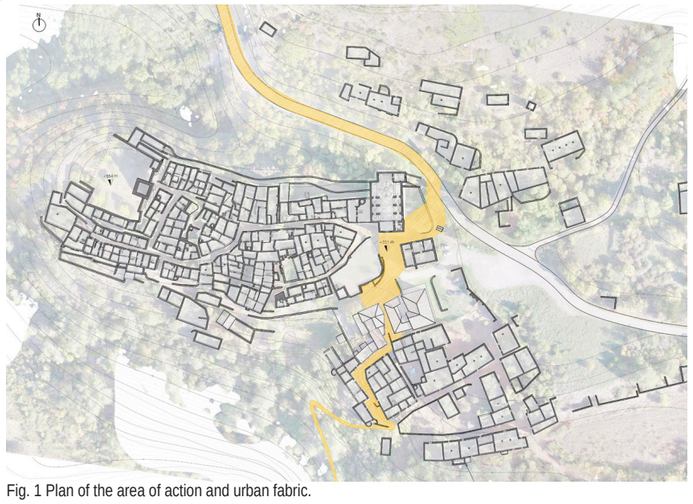


Fig. 1 Plan of the area of action and urban fabric.

Fig. 2. Restored façade.

Fig. 3. Reinforcement of openings in the façade.

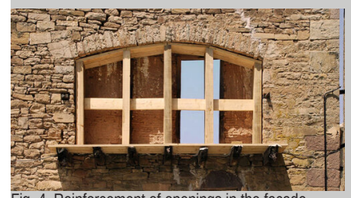


Fig. 4. Reinforcement of openings in the façade.

Fig. 5. Structural reinforcement with concrete beams.

Fig. 6. Orthophoto of Ruesta.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

PROCEDURE

The village was expropriated in the 1960s, and the Ebro Hydrographic Confederation became the owner (with the exception of the castle), which ceded its use and maintenance in 1988 to the Aragon General Confederation of Labour.

In 2017, threatened by the serious risk of collapse of the houses that frame and border the Way of St. James, the Sebastián Arquitectos studio was commissioned to design a Master Plan for restoring Ruesta, which was carried out from September 2017 to February 2018. It was prepared in **three stages**:

- Phase I: data collection. This consisted of a historical and artistic study of the complex, a report on its physical condition, the drawing up of plans and a description of the architectural elements and those of artistic interest, materials, construction systems, structural systems, installations, etc.

- Phase II: analysis and diagnosis of the current state. The aim was to study how spaces were configured, pathologies and deficiencies to be rectified, and future needs. The complex was mapped using all the data from the previous phase, indicating the degree of historical and artistic environmental value of each dwelling and space, and the possibility, nature and even need for intervention (whether it be restoration, reintegration, or even new building work and installations).

- Phase III: action plans. These include maintenance and management plans to correct pathologies and construction and functional deficiencies, restore and/or enhance the value of elements of artistic interest and their spatial configuration, and bring the complex back into use. To this end, a number of functional reorganisation actions were designed, with a criterion of a fair, necessary intervention, to coordinate the demands of current use and regulations with the utmost respect for the whole.

Once the **Master Plan** had been drawn up, the first stage of consolidation work began, based on a number of simple actions to consolidate and restore the remains of the buildings, and to give new uses to the restored heritage.

VALORACIÓN

LESSONS LEARNED

Three lessons were learned primarily:

- Firstly, **respect for the existing building**, its layout and its history.

- Secondly, the importance of meticulous fieldwork, detailed study and conscientious evaluation demonstrates consideration for knowledge about the working environment, particularly when it is of a certain historical nature and plays a role in the route of the Way of St. James.

- And thirdly, necessity and creativity when proposing a new use for depopulated, abandoned settlements that will make it possible to conserve the environment and attract people and visitors.

GOVERNANCE AND TRANSFERABILITY

The Master Plan was drawn up by the architectural firm Sebastián Arquitectos, and the following resources were used to carry it out:

- Aeroyud, which carried out the flights and provided bird's-eye views, orthophotos and videos of the **whole site**, making it possible to analyse the elevated and inaccessible parts of some of the buildings.

- Ruesta General Confederation of Labour, which cleaned and pruned the vegetation in the entire interior of the complex.

- 1991 study by Ramón Betrán Abadía.

- Government of Aragon's Building Quality Laboratory, which was of great help in obtaining data on the characteristic stone of the core, and the types of mortars and plasters.

The project is an example that can be replicated in many other villages in Spain of a similar nature, with a high degree of dissemination and the recognition of the Hispania Nostra 2021 Award in the Interventions on Territory or Landscape category

Firstly, the Jury wanted to recognise the clear link between the concepts of **heritage, landscape and territory** that it exemplifies. It also highlighted the restoration of buildings in an abandoned area, the contribution to the economic development of the area, and the great possibilities for promoting cultural tourism offered by the project, taking advantage of both the specific space and the surroundings, making it a focus of attraction both for its own importance and for its link to the Way of St. James.

The project was published in the magazine Arquitectura Viva, one of the most widely distributed publications on architecture. It was also published in the newspaper Heraldo de Aragón, the most widely distributed newspaper in the region.

As far as social participation is concerned, different spaces, formats and methods have been combined, making it possible to incorporate the great wealth of **multi-actor deliberative work**, which has included people from different social and economic entities and public administrations.

It was organised by setting up a Steering Committee made up of 22 people and holding workshops on access to land, food culture, marketing, distribution and waste.

In total, online participation has given a voice to approximately 417 local people.

SUSTAINABILITY

The main aspect confirming the project's intention to be sustainable is the nature of the conservation of the existing architectural heritage and defence of the traditional and cultural landscape that it entails. The project was very respectful of the condition of the ruin, restored it and gave it a new use.

Social sustainability is also a key factor when trying to ensure that the layout and settlement will survive in the best possible manner by conserving its buildings and memory.

And finally, in terms of economic sustainability, the action plan proposed taking advantage of existing resources and low-cost actions that sought to restore the existing site with economic construction solutions in such a way as to ensure a certain **versatility** and respect for the site in its use.

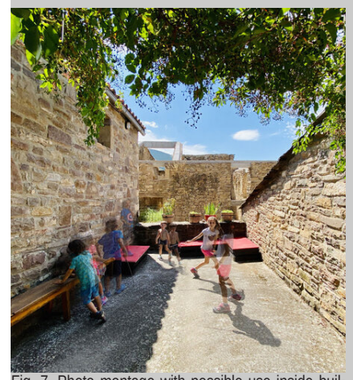


Fig. 7. Photo montage with possible use inside buildings.

Fig. 8. Photo montage with possible use inside buildings.

Fig. 9. Restored façade.

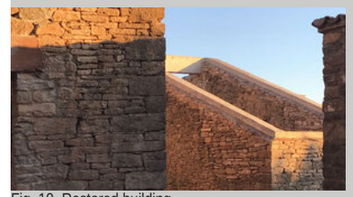


Fig. 10. Restored building.

Fig. 11. Restored building.

DATA

LOCATION
Spain.

ACTORS
· Government of Spain, Secretariat of State for Tourism.
· Sociedad Mercantil Estatal parala Gestión de la Innovación y las Tecnologías Turísticas (SEGITUR).
· World Tourism Organisation.
· Municipal councils.
· Various private companies.

DATES
· 2018: Launch of the Smart Tourism Destinations network.

AREA OF ACTION
Across Spain.

SOURCES
Smart Tourism Destinations:
https://www.destinosinteligentes.es/

PHASE
In the process of implementation.

SUMMARY

The **Smart Tourism Destinations** (STD) network is an initiative that seeks to improve national tourism activity, by promoting strategies and tools aimed at establishing a more sustainable tourism model. The aim is to build innovative tourism, consolidated on a state-of-the-art technological infrastructure, that will ensure the sustainable development of the territory, be accessible to all, facilitate the interaction and integration of visitors with the environment and improve the quality of life of residents.

Given that Spain is one of the most visited countries by tourists, it is important to continuously improve the competitiveness of Spanish destinations from the perspective of sustainability and accessibility through new governance models that include innovation and technology as tools to achieve this.

The Secretary of State for Tourism's idea to set up the first smart tourism destinations network in Spain is an ambitious long-term project that is aimed at promoting a new framework of reference to consolidate the levels of development and competitiveness of the current Spanish tourism model, while laying the foundations for what will be a new model based on innovation, knowledge, technology and shared governance between the central, regional and local administrations.

OVERVIEW

OBJETIVES

The objective of Smart Tourism Destinations, which have come together in the STD Network to promote synergies and knowledge transfer and maximise the benefits of the STD methodology, is to lead the **development of the tourism sector through innovation and technology based on sustainability**.

The Network is coordinated by the Secretary of State for Tourism and SEGITTUR, with the following objectives:

- Encourage Spanish tourism destinations to become smart destinations and get them to join the Network.
- Encourage public-public and public-private collaboration in developing products, services and actions for Smart Tourism Destinations.
- Help ensure Spain's leadership in the field of tourism intelligence through actions carried out by the Network.
- Ensure the quality and evolution of the STD project.

BACKGROUND

Spain is the **world's leading destination for holiday tourism,** the second in terms of tourist expenditure and third in terms of the number of international tourists it receives. Tourism accounts for 11% of national GDP and more than 12% of employment.

Therefore, in a very changing environment, dominated by the new digital economy, with much more demanding, informed, hyper-connected and multi-channel tourist profiles, in 2012, the Ministry of Industry, Energy and Tourism decided to commit to transforming the Spanish tourism model based on the concepts of innovation, technology, sustainability and accessibility in order to secure the present and future of tourism in Spain.

DESCRIPTION

The Plan arose from the need, obligation and commitment that the country acquired in seeking a **more sustainable future.** Taking the importance of the tourism sector in the national economy into account, it was necessary to tackle the challenge of building a quality tourism model that was committed to sustainability.

Spain enjoys a high level of prominence, recognition and loyalty from the international tourism market, a well-deserved reputation built up over more than fifty years of good work and thanks to its remarkable tourism infrastructures and services. Consequently, Spain is in a position to lead the change in the tourism paradigm and take actions aimed at creating new business opportunities that will allow it to offer tourism products that are different from the rest, promote the diversification of source markets and consolidate the successes achieved in mature markets.

In this context, the experiences of smart cities and the progress made in this field were taken as a reference and example, leading to the creation and implementation of a new concept in tourism: Smart Tourism Destinations (STD). Therefore, following a proposal made by Sociedad Estatal para la Gestión de la Innovación y las Tecnologías Turísticas (SEGITTUR), the Secretary of State for Tourism included this initiative in the strategic plan for the legislature and assigned it the responsibility of leading its conceptual development and implementation through pilot projects. This Smart Destinations Plan was built on four pillars:

The first was **Technology**. In a scenario of continuous technological improvement, an essential element for a more sustainable tourism model is the continuous implementation of effective technological improvements. Improving technology is a commitment that affects all links in the tourism value chain and has become a key factor in competitiveness, sustainability and smart governance. The intensity of internet use by both tourists and businesses in the sector makes network connectivity an essential part of improving the management and competitiveness of tourism destinations.

The second was **Innovation**, which is a central strand of Spanish tourism policy and, in part, is closely linked to the first pillar of technological improvement. Among other things, tourism innovation involves new business management models, new forms of communication and the continuous quest to improve the customer experience. In this sense, a tourist destination's leadership in innovation depends on its ability to anticipate the future and prepare conscientiously to welcome it in the best possible conditions.

The third was **Accessibility**. Every tourist destination has to make an effort to adapt to the needs of people with any type of disability, by removing architectural and mobility barriers.

Fig. 1 Image of the Smart Destinations logo.

Fig. 2. Tenerife as an example of an STD.

Fig. 3. Graphic depicting how to implement an STD strategy.

Fig. 4. Microsite of the DTI-AECID-SEGITTUR course.

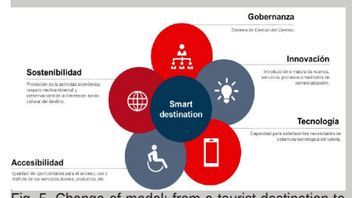


Fig. 5. Change of model: from a tourist destination to a smart destination.

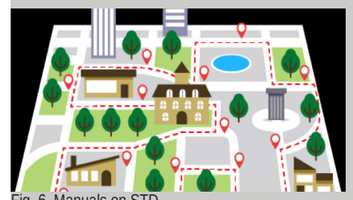


Fig. 6. Manuals on STD.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

Accessibility is also a response to people's right to free access to goods and services that favours deseasonalisation and improves the image of the destination by making it socially responsible.

The fourth was **Sustainability**. A balance between economic growth, environmental preservation and socio-cultural development is required to build a future based on tourism that is fairer, more diverse and more respectful of the territory and its inhabitants.

To achieve this balance, managers and stakeholders need to adopt a range of energy, environmental, cultural and economic measures to enhance the quality of life of the local population, improve the visitor experience and protect the environment.

RESULTS

The success of the Smart Tourism Destinations model proposed by the Secretary of State for Tourism has aroused the interest of many destinations that have begun the process of distinguishing themselves as Smart Tourism Destinations with the help of SEGITTUR at different stages since 2013. The Minister of Industry, Trade and Tourism formally launched the STD Network with close to 70 members in October 2018. In February 2019, the protocol for making destinations official members was signed and the first plenary meeting of the committee was held.

Places that have currently achieved the goal of becoming an STD are: **Benidorm, Gijón, Malaga, Tenerife and Santander.**

There are also several destinations that have now completed the assessment process with SEGITTUR and are following the STD methodology in Spain and abroad with the main initiatives relating to the STD environments: Alcobendas, Almería, Arona, Avilés, Badajoz, Benidorm, Burgos, Campo de Gibraltar, Canal de Castilla, Castelldefels, Castropol, Costa del Sol, Cuenca, San Sebastian, El Ejido, el Hierro, Gijón, Guadalajara, Tenerife, Jaca, Las Palmas de Gran Canaria, León, Lloret de Mar, Malaga, Marbella, Murcia, Noja, Osuna, Peñiscola, Huelva, Navarre, Salamanca, Salou, Santander, Sierra Morena, Torremolinos, Torrox and Vitoria.

PROCEDURE

The methodological process is divided into two cycles. The first is the **assessment and planning** cycle, which is aimed at carrying out a comprehensive assessment of the specific tourist destination. This assessment is carried out by reviewing 96 requirements and 262 indicators. After the place has been assessed, a plan of action is drawn up which will look to establish a tourism strategy for the destination which will make it possible to transform it into a Smart Tourism Destination.

The second cycle of the process involves **implementing the plan and monitoring** the transformation. The measures and actions required to achieve the Smart Tourism Destination distinction by implementing the action plan will be carried out in this cycle. Once the plan has been implemented, the destination will start a process of continuous improvement, through monitoring, which will ensure that it is able to successfully face the challenges and transformations posed by the new economic, social and technological environment.

The body in charge of implementing this methodology to add destinations to the list of STDs is Sociedad Mercantil Estatal para la Gestión de la Innovación y las Tecnologías Turísticas (SEGITUR). Only those places that obtain a score equal to or higher than 80% in terms of their degree of compliance with the requirements set out in the STD methodology will receive the Smart Tourism Destination label.
se espera que el destino siga trabajando en todos los ejes para continuar con la mejora continua de la calidad turística.

After approval, destinations start a **process of continuous improvement** because the destination is expected to continue working on all aspects in order to keep on improving the quality of tourism.

REGULATORY FRAMEWORK

The Smart Destinations Network is an initiative that emerged from the Integrated National Tourism Plan 2012-2015. Other policies followed by the plan are the Integrated National Tourism Plan 2012-2015 and the Aenor AEN/CTN 178 standards.

ASSESSMENT

LESSONS LEARNED

The **success of the Smart Tourism Destinations model** proposed by the Secretary of State for Tourism has aroused the interest of many destinations that have begun the process of distinguishing themselves as Smart Tourism Destinations with the help of SEGITTUR at different stages since 2013. These include destinations of very different types, all of which have a place in a methodology that takes a comprehensive approach and proposes a strategy for the future based on governance, sustainability, accessibility, innovation and technology as the cornerstones.

GOVERNANCE AND TRANSFERABILITY

The Secretary of State for Tourism is leading the STD project, which is a pioneer at an international level, promoted and managed by SEGITTUR, the objective of which is to implement a new model for improving competitiveness and tourism development based on governance and co-responsibility in tourism.

Furthermore, Aenor is strongly committed to this new destination model, which is part of an ambitious smart city development strategy. To help address all of the issues related to implementing these, Aenor, in collaboration with the Secretary of State for Telecommunications and the Information Society (SETSI) of the Ministry of Industry, Energy and Tourism, deployed the AEN/CTN 178 Technical Standardisation Committee on Smart Cities, which will help them develop their full potential through the standards.

It is important to note that many companies and institutions are involved in developing **smart destinations;** AMADEUS, BBVA, CELLNEX, CICtourGUNE, CISCO, CONETIC, ENDESA, FUNDACIÓN METROPOLI, FUNDACIÓN ONCE, Global Sustainable Tourism Council, GLOBALDIT, GNOSS, GOOGLE, GVAM, IBM, INDRA, INVATUR, IPHONEDROID, ITH, MOBDALA, OHL, PREDIF, Responsible Tourism Institute, SmartCity, Sismotur, Tecnalia, Telefónica and The App Date.

SUSTAINABILITY

The incorporation of ICTs into the **sustainable management of tourism**, which is complicated by factors such as seasonality, which moves the balance of population and services at a rate that is difficult to gauge (many municipalities double or even triple their population in the high season), may be the solution.

In this sense, the power of control offered by tools such as sensorisation, WiFi and WiMax networks and big data management should be considered when it comes to processing large volumes of structured and unstructured data and capturing strategic information on what is happening in the territory.

Fig. 7. Santander as an example of an STD.

Fig. 8. Cycle 1 of the smart destination methodology.

Fig. 9. Cycle 2 of the smart destination methodology.

Fig. 10. Malaga becomes an STD.

Fig. 11. Gijón becomes an STD.

HOUSING

8 STRATEGIC GOAL GUARANTEE ACCESS TO HOUSING

SPECIFIC GOALS

8.1. 8.1. PROMOTE THE EXISTENCE OF SUITABLE AFFORDABLE HOUSING STOCK.
- · REHABITARE Programme in Castile and León.
- · Access to housing in the historic city of Toledo.

8.2. ENSURE ACCESS TO HOUSING, PARTICULARLY FOR THE MOST VULNERABLE GROUPS.
- · Can Fabra. Housing for young people in Barcelona.
- · Action in Santa Adela neighbourhood, Granada.

DATA

LOCATION
Castile and León.

ACTORS
· Regional Ministry of Development and the Environment.
· Directorate General for Housing.
· Government of Castile and León
· Department of Housing and Town Planning of Castile and León.
· Councils of various municipalities.

DATES
· The Rehabitare programme started in 2016.

AREA OF ACTION
Autonomous Community of Castile and León.

SOURCES
Government of Castile and León, Rehabitare Programme:
https://vivienda.jcyl.es/web/es/programa-rehabitare.html

PHASE
In progress since 2016.

SUMMARY

The Regional Government of Castile and León promoted the Rehabitare programme in 2016 with the aim of restoring **council-owned** homes that had been abandoned, the restoration and recovery of which would be of interest to the rural environment. Housing is generally located in urban areas, which means that all types of services are available, thereby optimising existing infrastructures and preventing the deterioration of municipal heritage. Local councils determine the rental price, which may not exceed one third of the income of the tenant unit (the people who will occupy the dwellings) and depends on the needs of each municipality, with preference being given to groups that require special protection as set out in the Castile and León Law on the Right to Housing.

Consequently, Rehabitare has become established as a programme that aims to provide access to housing for people with urgent needs and encourage the population to settle and carry out activities in rural areas.

OVERVIEW

OBJETIVES

The objective of the Rehabitare programme is to increase the public social rental stock and to get people to settle in rural areas. Its priority aim is to meet the housing needs of the **most vulnerable groups**, focusing especially on young people.

This housing refurbishment programme is aimed at restoring buildings that can be used for social rental in order to optimise municipal resources, restore buildings with a heritage value, revitalise the traditional areas of the municipal urban fabric and, above all, get the population to settle in rural areas by making refurbished housing available for social rental. It can also be used as an instrument for **economic recovery** and job creation in rural areas, thanks to the involvement of local businesses in the renovation work carried out under its auspices.

BACKGROUND

Many rural municipalities in Castile and León have been experiencing a gradual **decline in population** for decades. Among other problems, this decline in population is leading to abandoned housing, a decline in municipal funding capacity, and a deterioration in the quality of property and supply.

Since 2000, rural areas in Castile and León have lost about 15% of their population. The existence of an ageing population and the gradual decline in services and employment opportunities are leading to a steady loss of population, among other issues. This trend, which has been evident for several decades, requires an effective search for solutions. Agricultural activities, and many of the traditional cultures of the towns and villages in Castile and León, are disappearing due to the lack of generational succession. Programmes and plans are needed to help counteract this problem by providing economic and social support to rural areas.

DESCRIPTION

In short, the Rehabitare programme consists of refurbishing council-owned homes that are in disuse and then offering them for social rent to people with access difficulties.

Housing is generally located in urban areas, which means that all types of services are available, thereby optimising existing infrastructures, preventing the deterioration of municipal heritage and improving urban aesthetics. Once refurbished, the homes are incorporated into the Castile and León Public Housing Stock so that they can be offered for social rent. The respective municipalities determine the rent, which may not exceed one third of the household's income.

As it has been operating for more than five years, participation in the Rehabitare programme has changed slightly over the calls. Currently, beneficiaries of housing must be registered on the Regional Ministry of Development's List of Applicants for Social Housing and the cost of the property must also be subject to a maximum investment. The refurbishment cost may not exceed 40,000 euros and, if it does, must be borne by the participating municipality. It is a programme especially aimed at **small municipalities** of between 200 and 5,000 inhabitants. As the council grows, more than one applicant for social housing is required.

The mechanics of the action to implement this programme is simple: following the transfer of the unused housing or property by the town council to the Regional Ministry of Development and the Environment, the Directorate General for Housing, Architecture and Town Planning contracts the refurbishment work required so that, once completed, it can be returned to the town council, which offers it for social rent to families or other groups that require special protection, as set out in Law 9/2010.

In addition, local councils, or entities with which the agreement is ratified, such as the Bishopric or the Provincial Council, must rent the property within three months and keep it for social rental purposes for a minimum of ten years. Afterwards, the property can be sold, although the Regional Ministry of Development has the right of first refusal. The programme offers help when it comes to renting and buying housing, **focusing particularly on young people**. The Regional Government of Castile and León has several lines of support for young people.

It is also worth highlighting the **calls for applications for grants** for housing rentals made by the Regional Ministry of Development and the Environment with the aim of helping families with fewer resources pay a significant percentage of the rent (40%), rising to 50% in the case of young people under the age of 35 or older people over the age of 65. Rehabitare is part of the Social Housing Programme in Castile and León and in the first year of implementation in 2016, the call reached 8,262 beneficiaries, with an investment of 10.1 million euros that made it possible to reach all applicants. Since then, the Programme has increased its investment each year.

Fig. 1 Signing of the agreement between the Regional Ministry of Development and the Environment and León Provincial Council.

Fig. 2. Rehabitare Programme in Villaseco del Pan.

Fig. 3. House in Meneses de Campos incorporated into the Rehabitare programme.

Fig. 4. The Rehabitare programme adds a house in Meneses.

Fig. 5. Handing over the keys of a refurbished house in Valdivielso thanks to this programme.

Fig. 6. Esguevillas de Esgueva in the Rehabitare programme.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

RESULTS

From 2016 to the end of 2020, the Regional Government of Castile and Leon, through the Regional Ministry of Development and the Environment, restored a total of **262 homes** (242 owned by local councils and 20 owned by dioceses), to offer them for social rent, thereby making them part of the public rental stock.

A number of actions have been carried out to date, spread throughout the region. The list of actions in 2020 is as follows:

- Ávila (6 actions): there were actions in Cabezas del Pozo, Rasueros, Higueras de las Dueñas, Navalosa, Nava de Arévalo and Villaflor.

- Burgos (6 actione): there were actions in Villasandino, en Las Quintanillas, Los Ausines, Villadiego, Santo Domingo de Silos and Arauzo de torre.

- León (5 actions): there were actions in Almanza, Encinedo, Igüeña, Toral de los Vados (Villadecanes) and Villamizar (Santa Mª del Monte Cea).

- Palencia (5 actions): there were actions in Barruelo de Santullan, La Serna, Meneses de Campos, Villada and Villasarracino.

- Salamanca (6 actions): there were actions in Aldeanueva de Figueroa, Béjar (Viviendas de la Consejeria), El Maíllo, Monleón, Morille and Sequeros.

- Segovia (5 actions): there were actions in Aldealengua de Santa Mª, Brieva, Campo de Cuéllar, Coca y San Martín and Mudrián.

- Soria (5 actions): there were actions in Carbonera de Frentes (Golmayo), Las Cuevas de Soria (Quintana Redonda), Monteagudo de las Vicarias, Noviercas and Vizmanos.

- Valladolid (5 actions): there were actions in Esguevillas de Esgueva, Matapozuelos, Tamariz de Campos, and Villalar de los Comuneros.

- Zamora (6 actions): there were two actions in Ferreruela de Tábara, and actions in Morales de Valverde, Santa Eulalia de Tábara-Moreruela de Tába, Vega de Tera and Villarrín de Campos.

PROCEDURE

Five main criteria were set for selecting the actions: First, the property had to be located in a municipality with a resident population of **less than 5,000 inhabitants**.

Second, the property had to be owned by the council, free of charges and encumbrances of any kind and duly registered in the Land Registry. Third, the town council had to justify the existence of applicants for housing in the municipality through the List of Applicants for Social Housing in Castile and León. Fourth, the cost of refurbishment could not exceed 40,000 euros plus VAT. And fifth, preference would be given to those actions that best meet the primary purpose of the programme, and those with the buildings of the greatest architectural value.

The programme began as a **pilot project** in the province of Palencia in 2009 and was extended to the whole Community in 2016. In five years, from 2016 to the end of 2020, the Regional Government of Castile and Leon, through the Regional Ministry of Development and the Environment, restored a total of 262 homes (242 owned by local councils and 20 owned by dioceses), to offer them for social rent, thereby making them part of the public rental stock.

As for **future actions**, the Regional Government's plan is to refurbish a total of 246 homes throughout the Community over the next three years, from 2021 to 2023.

REGULATORY FRAMEWORK

- Law 9/2010 of August 30, on the right to housing in the Community of Castile and León (BOCyL 7-09-2010).
- ORDER FOM/1884/2006 of November 22, regulating the List of Applicants for Social Housing in Castile and León (BOCyL 28-11-2006).
- ORDER FOM/1982/2008 of November 14, regulating the procedure for selecting purchasers and tenants for social housing in Castile and León (BOCyL 19-11-2008 and Correction of errors BOCyL 19-02-2009).
- ORDER FOM/791/2011 of June 1, amending Order FOM/1982/2008 of November 14, which regulates the procedure for selecting purchasers and tenants for social housing in Castile and León (BOCyL 21-06-2011).
- ORDER FYM/44/2012 of January 23, amending Order FOM/1982/2008 of November 14, which regulates the procedure for selecting purchasers and tenants for social housing in Castile and León (BOCyL 08-02-2012).

ASSESSMENT

LESSONS LEARNED

Villages have been undervalued for a long time, but now, with Covid, the benefits of living in rural areas are beginning to be seen. The pandemic has led former neighbours to return to their villages, a phenomenon that has happened globally. This action has given a **considerable boost** to the expansion of the public social housing stock in Castile and León, particularly in rural areas.

It has established itself as an effective tool for facilitating access to rental housing for the most needy families, halting the depopulation of rural areas and stimulating economic activity through the refurbishment of housing.

GOVERNANCE AND TRANSFERABILITY

The Autonomous Community of Castile and León took the lead, but the participation of **municipal administration** was also essential. Therefore, multilevel governance was a key factor in making the initiative work and the housing units were eventually occupied and performed a social and economic function with a high impact on the community. To this end, the Rehabitare programme has earmarked several million euros to promote the project, which began in 2009 in Palencia as a pilot project and was extended to the entire community in 2016.

SUSTAINABILITY

This action has helped support the durability of a **way of life**, the rural model, which can provide a more sustainable future. Refurbishment slows down the exodus of residents, thereby leading to a high degree of social diversity. Moreover, the serious depopulation of the rural environment over the years can be reversed. Vulnerable groups benefiting from assistance have the chance to get access to housing, and therefore to better social and cultural integration, thereby reducing the risk of marginalisation and homelessness. It can be used as an instrument for economic recovery and job creation in rural areas, thanks to the involvement of local businesses in the renovation work carried out under its auspices.

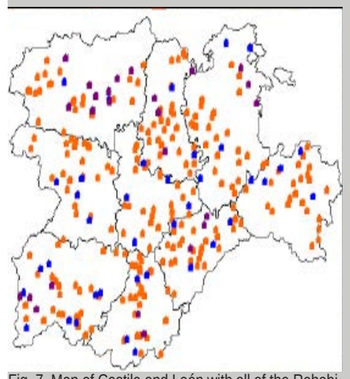


Fig. 7. Map of Castile and León with all of the Rehabitare Programme actions.

Fig. 8. Portal of the Regional Government of Castile and León where the Programme was presented.

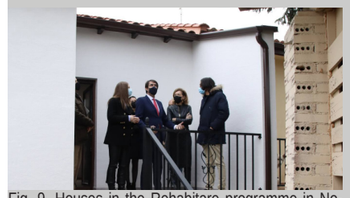


Fig. 9. Houses in the Rehabitare programme in Nogarejas.

Fig. 10. Refurbished house in the Rehabitare Programme for rent in Villegás.

Fig. 11. Refurbishment of a house in Pomar de Valdivia as part of the Rehabitare Programme.

DATA

LOCATION
Toledo, Castilla-La Mancha.

ACTORS
· The Regional Government of Castilla-La Mancha.
· The Provincial Council.
· Toledo City Council.
· City of Toledo Consortium.
· Civil society.
· Property owners.

DATES
· The 2030 Collaborative Rehabilitation Plan is expected to start in January 2022 in collaboration with the Municipal Housing Company.

AREA OF ACTION
The Old Town in Toledo, about 2.6 km2.

SOURCES
Toledo City Council:
https://www.toledo.es/servicios-municipales/urbanismo/
City of Toledo Consortium:
https://consorciotoledo.com/

PHASE
Awaiting the start of the implementation process.

SUMMARY

The City of Toledo Consortium is a public entity with its own legal personality and full capacity to act to fulfil its specific aims, which include promoting and facilitating the coordinated exercising of the powers of the State Administration, the Autonomous Community, the City Council and the Provincial Council.

The actions implemented include its **Strategic Plan 2030**, which includes a set of actions in which restoring heritage becomes a tool for getting the population to settle in the Old Town. The project is aimed at preventing existing residents of old buildings from leaving their homes, while at the same time refurbishing heritage buildings as a new housing offer for young people, students and families.

The Plan includes new features such as the forthcoming opening and recovery of the Corral de San Diego, the launch of a new refurbishment aid package that will take into account “human scales”, and the **Coopera Programme**, for refurbishing private buildings without residents with the aim of restoring them to residential use.

OVERVIEW

OBJETIVES

The main objective of this strategy is to preserve the life and wealth of the Old Town with a package of actions that follow the example of “contemporary Europe and urban development in heritage cities”. The aim is to give people living in old houses the opportunity and the **financial support** they need to improve accessibility and technology or to renovate the building in terms of its heritage, thereby preventing residents of the Old Town from moving to other neighbourhoods or cities.

In short, this action envisages the refurbishment of movable and urban heritage to be used as a tool to get the population of the Old Town to stay there. In addition, the Consortium has set itself the challenge of increasing the demand from residents, facilitating access to housing, caring for the most vulnerable people by ensuring their right to decent housing, renovating areas of the Old Town and helping residents to improve their quality of life with improvements focused on accessibility, new technologies and other possibilities.

BACKGROUND

In 1986, the Old Town in Toledo was declared a World Heritage Site. In 1997, the Special Plan for the Old Town in Toledo was drawn up, guiding restoration actions towards refurbishing buildings, making them habitable and enhancing the value of visible and hidden heritage elements. To this end, it set out a number of principles for urban planning regulations which, with minor modifications, have been applied since the Plan came into force, either through the Plan itself or through the plans that have incorporated it.

Considering the **cultural and heritage** value of this urban enclave, the fact is that the Old Town in Toledo went from 13,599 registered inhabitants in 1986 to 10,400 in 2017.
The period of population stagnation between 1996 and 2004 would turn into an upward trend between 2004 and 2008, with a 12 percent growth in the municipal census figures for the Old Town. This was a period that coincided with the real estate boom and low-interest mortgages.

With the onset of the economic crisis, the population in the city centre automatically began to decline.

The housing situation in relation to the population density of Toledo over this decade showed a very high percentage of **empty homes** in the Old Town (19.89%) compared to the rest of the city (8.78%). The same could be said for the percentage of rented housing within the Old Town (1,250, representing 16.95% of the total number of dwellings). These factors mean that the Old Town in Toledo is in a state of vulnerability due to neglect and disuse. With a total population of around 85,000 inhabitants, Toledo has found an opportunity in its Old Town to revitalise the city and propose new urban alternatives for habitability.

DESCRIPTION

Broadly speaking, this Plan has three lines of action:

The first of these is to **get the population to settle** in the Old Town, i.e. consolidate and collaborate with the residents of the Old Town to improve the habitability of their properties.

The second is focused on **recovering** large buildings for residential use. Consequently, the Plan envisages setting up the Coopera Programme, which aims to renovate abandoned, disused or empty private buildings in order to convert them into new housing and attract new residents, thereby increasing the life and social complexity of the Old Town. The approach of this Programme is to use these new dwellings to create a public demand pool where citizens who want to live in the Old Town can do so. It has been estimated that around 200 new dwellings could be achieved by 2030.

Finally, it could be said that the third line of action in the Plan has the complicity of the partners in the consortium, which include the Government of Spain, the Regional Government of Castilla-La Mancha, the Provincial Council and Toledo City Council, and is committed to making available **closed, unused buildings that are public property to seasonal** or long-stay residents, in the form of a residence for students, researchers or digital workers.

Furthermore, this urban action is not merely limited to reforming or renovating abandoned or disused dwellings, but also proposes alternative urban actions to create new spaces and give a different morphology to the Old Town itself. For example, a group of buildings (Corral de Don Diego) will be opened up to provide an “agora” for the condensed Old Town.

Fig. 1 Orthophoto of part of the municipality of Toledo, showing the Old Town as a whole.


Fig. 2. The Casco, at risk due to its tourism and heritage success.


Fig. 3. Corral de Don Diego heritage site.


Fig. 4. Project at Corral de Don Diego.


Fig. 5. Photograph of empty houses in Calle Alfonso VI (image from 2007).

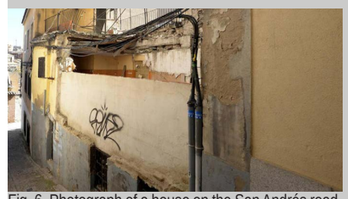


Fig. 6. Photograph of a house on the San Andrés road.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG8 GUARANTEE ACCESS TO HOUSING

8.1 Promote the existence of suitable affordable housing stock.

8.2 Ensure access to housing, particularly for the most vulnerable groups.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

RESULTS

So far, grants have been approved to **refurbish** a total of 45 residents' homes, all of them by the City of Toledo Consortium. Pending the implementation of these refurbishments, there are no results so far because the implementation phase has not started. However, the initiative itself and its implementation is considered to be a remarkable result because of its **integrated and innovative** nature. The initiative has succeeded in turning the Old Town in Toledo into an interesting opportunity to search for housing or start up renovation projects.

PROCEDURE

The project started in 2021 with the identification of abandoned dwellings and contact with the owners. It is expected that the first reform work will start to be implemented in 2022.

Part of the **restoration work** has been awarded by the City of Toledo Consortium, one of the main driving forces behind the restoration and revitalisation of the Old Town in Toledo. Meanwhile, grants will be made available to citizens for repairs to common areas, façades, wiring, interior areas, staircases and other spaces shared by the inhabitants of buildings in the Old Town.

Between October 2020 and April 2021, the call for applications for grants to refurbish buildings and dwellings in the Old Town was open in order to start selecting the dwellings or spaces that would be refurbished.

All owners of residential buildings and dwellings not protected by the General Urban Development Plan (GUDP), listed buildings and dwellings in the Old Town protected by the GUDP, or courtyard houses entered for the Courtyard Festival or that are eligible for presentation, and tenement houses, were eligible for this aid.

Similarly, owners or residents' associations were also eligible for this aid to carry out work on common areas, façades, interiors, staircases and other spaces shared by the inhabitants of the building to be refurbished.

The selection procedure for the properties was that on a competition basis, by comparing the applications submitted and ranking them based on the assessment criteria set out in the regulatory bases. These criteria include the heritage value of the buildings, the technical difficulty of the work to be carried out and the existence of other sources of public funding, among others.

In addition, this will **make it easier to obtain** the Technical Building Inspection certificate, which is compulsory for buildings over 50 years old. These grants can cover up to 85% of the work, or even 100% if work is carried out on unique, heritage features.

REGULATORY FRAMEWORK

The regulatory framework for this good practice is as follows:

- General Urban Development Plan (1986).

- Special Plan for the Historic Centre of Toledo (PECHT).

- 2030 Collaborative Rehabilitation Plan.

ASSESSMENT

LESSONS LEARNED

This is a firm commitment by Toledo City Council to provide access to housing in the Old Town, which aims to prevent the **depopulation** of the Old Town and the consequent ageing of the area. This boost means revitalising the Old Town with a major impact on economic, social and even environmental levels. For the city model to be achieved following the goals of the Spanish Urban Agenda, this case addresses a large number of these goals in a cross-cutting manner.

Culture, architectural heritage and monuments have been important elements that have defined Toledo since it was declared a World Heritage Site. It is also one of the main areas on which the economic development of the Old Town and the city in general has been based. Therefore, in addition to initiatives to modernise and diversify the local economy of the Old Town, it is essential to continue to promote, refurbish and restore it with initiatives such as this one, which will bring more life and complexity to the city.

LEADERSHIP AND PARTICIPATION

Among the innovations presented is a new financial **aid package** for renovating buildings in use, i.e. where people are already living. The various ways in which aid to revitalise the Old Town has been approached is interesting in this good practice. From the more standard aid for properties where the owner lives and is registered as a resident, to aid for commercial premises and non-residential buildings, to aid for homeowner associations to refurbish or select disused buildings to be used for new families.

These different lines of aid have been awarded in a public and democratic manner, which makes it possible to talk about this proposal as a serious commitment to **preserving the population, heritage and life** in the Old Town in Toledo.

The organisation's new grants will be awarded on the basis of a new set of rules and regulations, which will be based not only on the scales for assets, but also for human resources. The change in the call for grants is considered to be very beneficial because it encourages homeowners to take part in a public competition process. It could undoubtedly be replicated in other towns and cities with similar problems.

SUSTAINABILITY

At a time when alternatives to urban sprawl are being called for and solutions are needed to change the trend of land transformation, which continuously increases the urban land area, proposals such as this one have great potential.

In its commitment to renovating the Old Town, Toledo City Council has put forward a different model for **creating a city,** seeking to regenerate and make the most of the urban space at its disposal, avoiding developing new areas. In addition to changing the expansionist dynamic, this measure also highlights the importance not only of the importance of city centres in terms of history and heritage, but also the social and economic wealth of an urban area that is trying to revitalise itself, with mixed uses and community building. The proposal is in line with the Sustainable Development Goals and the Spanish Urban Agenda, underlining its cross-cutting, integrated vision.

Fig. 7. Unoccupied building at the bottom of Cuesta de San Justo.

Fig. 8. House in El Callejón de Niños Hermosos.

Fig. 9. Abandoned plot next to the church of San Miguel.

Fig. 10. Building in ruins on Cuesta de San Justo.

Fig. 11. Properties in Plaza del Seco.

DATA

LOCATION
Barcelona, Catalonia.

ACTORS
· Barcelona Municipal Institute of Housing and Renovation.
· Roldán y Berengué team of architects.

DATES
· June 2017: start of the work.

AREA OF ACTION
Building G in the Coats Fabra S.A. industrial complex.

SOURCES
Fabra & Coats:
http://www.roldanberengue.com/?p=project&id=120

RECOGNITION
First prize for multi-family housing at the AIT-Award, winner of the FAD Architecture Award 2021, the Advanced Architecture Awards 2020, the Mapei Award 2020 and award winner at the Spanish Biennial of Architecture and Urbanism, among others.

PHASE
Finished.

SUMMARY

The Can Fabra social housing project is an affordable housing project for young people built in building G of the **Fabra i Coats industrial complex** in the Sant Andreu del Palomar district. This project was based on transforming an industrial building, and was committed to conserving heritage and recycling it using sustainability criteria.

The awards that the project has received include the AVS 2020 Award, which was given by the Spanish Association of Public Housing and Land Managers in recognition of best practices in new construction, social housing management, environmental management, renovation and public services. It also received first prize for multi-family housing at the AIT-Award, the Advanced Architecture Awards 2020, the Mapei Award 2020 and award winner at the Spanish Biennial of Architecture and Urbanism It was also selected as a finalist in the FAD Awards for Architecture and Interior Design 2021, one of Europe's longest-running and most prestigious awards in this field.

OVERVIEW

OBJETIVES

The key objectives of the project were:

- To respond to the housing needs of young people.
- To conserve the industrial, historical and unique heritage of the city and give it a second life, with a clear focus on criteria of sustainability and efficiency.
- To innovate in the implementation of integrated urban policies that respond to housing needs, while taking advantage of architectural innovation.

BACKGROUND

The Coats Fabra S.A. industrial complex (formerly Fabra i Coats) is a **former yarn and fabric factory** built in the late 19th and early 20th centuries, which was part of the former municipality of Sant Andreu de Palomar. This industrial complex is made up of a number of buildings of varying construction and age.

DESCRIPTION

The Can Fabra social housing project was the first public **rental housing building** in Barcelona to be built in an industrial building, keeping its external structure while taking sustainability and energy efficiency criteria into account. In fact, it is a reversible action because it has kept and restored the essential characteristics of the original building and its spaces.

In terms of construction, sustainability criteria were applied in both the choice of materials and the design. This is the first public rental housing building to be built inside an industrial building, while taking advantage of and preserving the external structure of the factory. It was built using a system known as **building-within-a-building,** which separates the interior structure from the exterior façades and makes full use of the capacity of the original structure and acts as an insulator. The double envelope allows natural air to circulate freely and avoids the need for air-conditioning for a large part of the year.

This interior structure was almost entirely made of wood, a material which has a very low environmental impact. All of the materials used were recycled, recyclable and low in energy costs.

Moreover, the aerothermal system that was installed was highly efficient in terms of producing domestic hot water (DHW) and heating. Combined with **passive strategies**, such as solar shading and cross-ventilation, this meant that all of the flats have an A energy certificate.

Architecturally, the common areas feature a diagonal visual connection between the ground floor entrance hall and the roof beams.

This was all perfectly integrated while still allowing the former industrial nature of the building to remain, together with the memory of the yarn industry that was carried out in the factory.

RESULTS

The project in Building G at Can Fabra is the first public rental housing building to be built inside an industrial building, while taking advantage of and preserving the external structure of the factory. However, the interior construction, which is completely new, was essentially built using **sustainable materials and energy efficiency criteria**, thereby having a low environmental impact.

Can Fabra has a total of 46 homes for young people between the ages of 18 and 35 with an average surface area of 64 m2. The renovation of the complex was carried out in different phases and, in addition to the social housing project, included restoring the old warehouses as a cultural space and the Fábricas de Creación (Creation Factories) project promoted by the Institut de Cultura de Barcelona (ICUB), in response to artists' needs for work spaces and meeting points with other creators.

The **Fábricas de Creación** (Creation Factories) are spaces reserved for experimenting, exchange, dialogue and even ambiguity and doubt as indispensable parts of a creative process that is essential in all artistic disciplines.

Each 'creation factory' is a world with its own unique character. Despite this diversity, all of these facilities are dedicated to the care, assistance and support of artistic creation and experimentation. They have spaces and resources to ensure that there are basic working conditions throughout the creative process. They also offer the possibility of publicising and exhibiting the projects created and help them become part of the city's artistic and cultural scene.

The mission of each of these creation centres is to be able to care for and listen to each of the projects it hosts in order to establish a dialogue. It is a space where creative doubt is not only allowed, but encouraged.

The conflict arising from this exchange, which is the result of dialogue, is necessary for the process of creation to take place. Therefore, the 'creation factories' guarantee that there is a space away from the pressures of industry, the media and the market, without ever losing sight of the rigour, demands and quality of the projects.

On the one hand, the 'creation factories' work in cooperation with the various cultural sectors, bringing ideas, projects and talent to the city. And on the other, they provide tools and support for the work of artists. This preserves and gives continuity to the **artistic tradition** that has always characterised Barcelona.

PROCEDURE

Can Fabra is a housing development for young people promoted by Barcelona City Council through the Municipal Institute of Housing and Rehabilitation (IMHAB by its Spanish acronym).

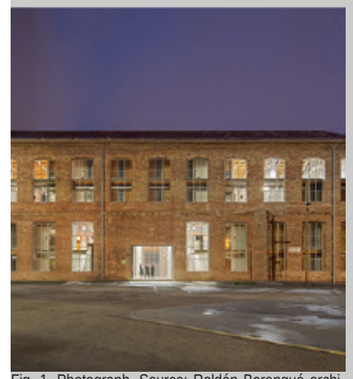


Fig. 1. Photograph. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

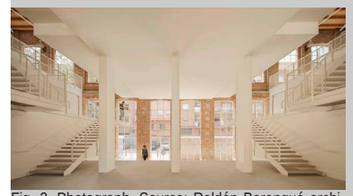


Fig. 2. Photograph. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

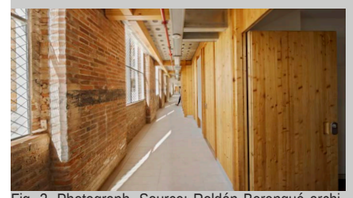


Fig. 3. Photograph. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

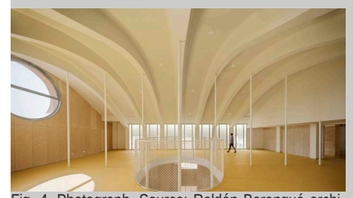


Fig. 4. Photograph. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

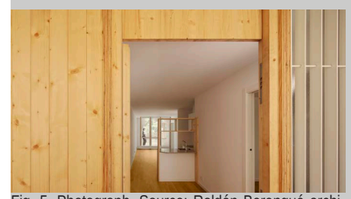


Fig. 5. Photograph. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG8 GUARANTEE ACCESS TO HOUSING

8.2 Ensure access to housing, particularly for the most vulnerable groups.

8.1 Promote the existence of suitable affordable housing stock.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.6 Improve the quality and sustainability of buildings.

REGULATORY FRAMEWORK

The action is part of the **Barcelona Right to Housing Plan 2016-2025**, which is aimed at ensuring the social function of housing and making progress in constructing a public housing service. To do this, the following challenges were set:

- Prevent and respond to housing emergencies and residential exclusion.
- Ensure the proper use of housing.
- Expand the affordable housing stock.
- Maintain, refurbish and improve the existing housing stock.

ASSESSMENT

LESSONS LEARNED

It is possible to respond to the city's housing needs by building on what has already been built, while conserving the existing heritage by recycling it to give it a second life, both in the building and the rest of the Can Fabra industrial complex.

This project was based on sustainability criteria, preserving and reusing the original structures and **using wood** to build the flats, a material with a very low environmental impact. According to the assessment made by the jury for one of the prizes the project was awarded, using wood "brings technical coherence and compositional maturity to an outstanding project, making it capable of creating thermal thresholds that help the building to function passively".

The project was also praised for the communal spaces that complete this building of 46 dwellings for young people aged between 18 and 35. The new building has **large communal spaces** that young people can use and share as they need, and part of the building, with a large gap in the centre measuring approximately 10 metres by 10 metres with a 9-metre high ceiling, is the headquarters of the Colla Castellera Jove de Barcelona.

GOVERNANCE AND TRANSFERABILITY

Despite the specific nature of the project, which makes it unique due to the features of the surrounding environment, it is a project that could be applied to other projects, both as a housing proposal and as an idea for recycling industrial heritage, and using sustainability criteria in the use of materials. All of these factors, among many others, make the action a good practice that could be applied to other actions of a similar nature.

SUSTAINABILITY

The definition of the action demonstrates its commitment to sustainability. The refurbishment of the building itself, its reconstruction using materials with a low environmental impact and the use of energy efficiency criteria undoubtedly meet environmental goals.

However, it is also worth mentioning the clear social and economic impact of the action, by giving young people access to housing, restoring the communal spaces and making them a meeting place. All of these actions are also based on architectural innovation that contributes to the goals of the International Agendas, the Spanish Urban Agenda and the principles of the **New European Bauhaus**, which refer not only to sustainability but also to aesthetics.

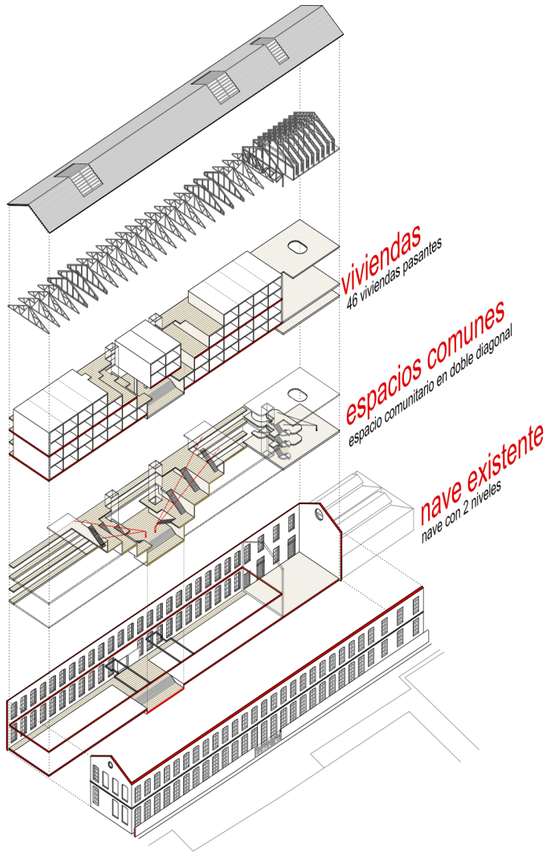


Fig. 6. Axonometric projection of the complex. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

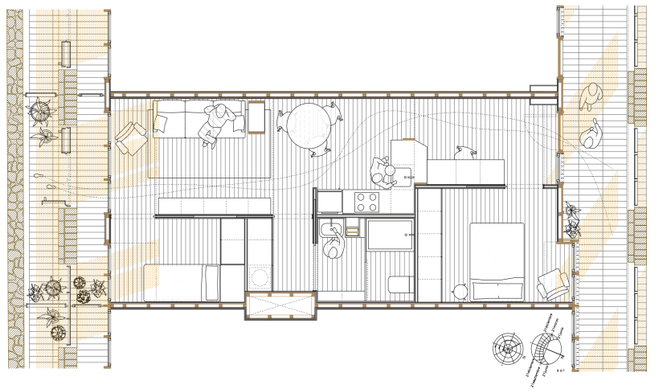


Fig. 7. Floor plan. Source: Roldán Berengué architects / Jordi Surroca and Gael del Río.

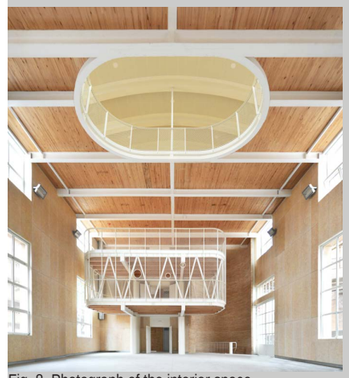


Fig. 8. Photograph of the interior space.

Fig. 9. Photograph of the façade.

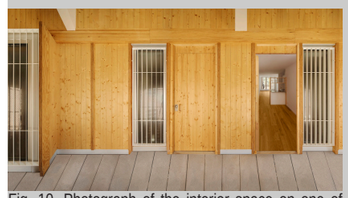


Fig. 10. Photograph of the interior space on one of the floors.

Fig. 11. Photograph of the façade.

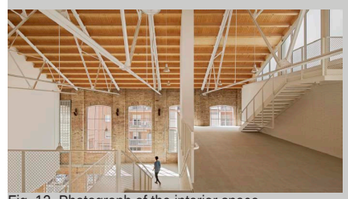


Fig. 12. Photograph of the interior space.

SUMMARY

The intervention consists of the total urban reform of the Santa Adela neighbourhood in Granada. It is an area made up of approximately **1,500 homes**, which were built in the late 1950s for the victims of the 1956 Grenada earthquake. One of the main objectives of the project was to improve the quality of life and health of the inhabitants by retaining the resident population, social integration and revitalising the socio-economic fabric of the area. To achieve this, a comprehensive public intervention was required, combining 5 areas, where the demolition and construction of new buildings, public spaces and green areas was planned, along with 2 other areas for refurbishing existing buildings which were in a better state of conservation. This was achieved by following a socio-educational process, with the participation of the resident population and a full, innovative re-housing programme.

OVERVIEW

OBJETIVES

The objectives of the action include: (1) improving the quality of life and health of the inhabitants of the neighbourhood and their social integration; (2) the socio-economic revitalisation of the area; (3) land-use planning and redistribution of areas and open spaces, and (4) retaining the population in the neighbourhood, making it necessary to create a rental housing stock close to the area to rehouse the residents during the demolition of the existing housing and the construction of the new housing. Strategies designed for the **temporary re-housing** programme, social incentive grants and programmes to instil a duty to conserve were considered to be of particular importance in the project.

BACKGROUND

The predominant building types were closed block, open block and H-block. Most of the buildings had **rising damp problems**, in some cases up to a height of 2 metres. These pathologies wre found mainly on the ground floors, and were due to the construction of the building's floors resting directly on the land overlooking the River Genil floodplain. The lack of gutters on roofs and poor maintenance made the situation worse. The damp in the homes caused serious health problems for the neighbours, most of whom were elderly.

There were also situations of energy poverty in the neighbourhood due to a poor thermal envelope on buildings and very inefficient installations, which meant a **waste of energy** and a lack of indoor comfort. This was compounded by the scarce economic resources of a mostly vulnerable population. In fact, there were a large number of older people living alone and receiving very low pensions, who in many cases covered their expenses by taking up informal employment.

30% of the population surveyed in the pre-intervention socio-economic study said that poverty and a lack of financial resources were the main problems in the area.

DESCRIPTION

This was a public action and municipal initiative that covered 1,473 dwellings and was aimed at regeneration at a planning level, creating open spaces and new facilities that would allow the neighbourhood to break out of its current situation of vulnerability. The project also included the development, in parallel, of various socio-educational programmes.

DATA

LOCATION
Granada, Andalusía.

ACTORS
· Granada City Council.
· Andalusian Regional Government.
· Ministry of Development.

DATES
· 2004 - present.

SOURCES
Ciudad y Territorio magazine. Territorial studies: *https://recyt.fecyt.es/index.php/CyTET/article/view/89253.*

PHASE
In the process of implementation.

Preliminary studies for the project began between 2000 and 2002, when the area of intervention was defined and subsequently included in the Granada General Urban Development Plan.

These studies concluded that not all of the dwellings were in the same state of conservation, so two intervention procedures were identified: demolition of the buildings in the worst condition and construction of new buildings (5 areas); public spaces and green areas and refurbishment of those in the best physical condition (2 areas). The latter became part of two Refurbishment Areas: the Jarama Refurbishment Area and the Cataluña Refurbishment Area.

This decision made it possible to refurbish nearly **500 homes** and replace another 1,000. This was supported by a socio-educational process, with the participation of the population.

It was important to define the criteria for determining which residents would be entitled to new housing and which would not in advance, since the actions involved expropriation.

Given the construction pathologies found in the original buildings, demolition and construction of new dwellings was unavoidable in the first phases. These buildings were of the type included in the municipal by-laws for the area for an open block multi-family residential use. They are eight-storey buildings with sixteen flats per floor, with a central covered area, with natural light, into which the communal areas open.

RESULTS

The results of the project were assessed using the methodology developed by the Department of Urban and Regional Planning of the **School of Architecture of the Technical University of Madrid** (UPM) as part of the Strategy for designing and evaluating integrated urban regeneration plans and programmes, within the framework of the 2013-2015 National R+D+i Plan.

This methodology made it possible to analyse the situation before and after the actions, taking the following aspects into account:

- Urban Design and Local Environment: the project included a major **improvement of the public space**, which positively and directly affected the urban landscape, its comprehensibility and safety. The operations carried out mainly removed leftover spaces resulting from an obsolete previous urban design. The proposal improved the relationship of the ground floors with the public environment by introducing new tertiary uses, which provided more diversity and complexity. However, it did not envisage operations linked to improving the energy efficiency of urban-scale installations.

- Building: as the work involved renovation in several phases, the new buildings **complied with the requirements of the Technical Building Code** (TBC), so the architectural scheme (materials, construction systems, building safety, habitability requirements, etc.) were satisfactory. The energy rating of buildings could be improved, although some of them had achieved the optimum rating. In fact, one of the new buildings won the 2009 Progreso Awards in the "Urban Planning and Housing" category of the Fundación Para el Desarrollo de los Pueblos de Andalucía (Regional Government of Andalusia and Andalusian Federation of Municipalities and Provinces (FAMP)) and was a finalist in the 1st AVS Awards in 2008, in the "Best Performance in Urban Revitalization" category, and in 2010, at the 2nd AVS Awards, it was again a finalist for social action in the Socio-Community Intervention category. With regard to the refurbishment of existing buildings, it also meant an improvement in terms of construction systems, pathologies detected and the energy efficiency of the building envelope.

Fig. 1. Coat of arms of Granada City Council.

Fig. 2. Definition of the area.

Fig. 3. Demolition of buildings covered by the action.

Fig. 4. Work in the Santa Adela neighbourhood.

Fig. 5. Work in the Santa Adela neighbourhood.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG8 GUARANTEE ACCESS TO HOUSING

8.2 Ensure access to housing, particularly for the most vulnerable groups.

8.1 Promote the existence of suitable affordable housing stock.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.
2.2 Ensure functional complexity and diversity of uses.
2.5 Promote urban regeneration.
2.6 Improve the quality and sustainability of buildings.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

- **Socio-economic** aspects: the neighbourhood had a solid social and institutional network, with resources and a great deal of experience, which made it possible for all of the actors involved in these types of complex processes to work together on a continuous basis. Although no improvement in the economic development of the area was envisaged, the social structure was maintained thanks to the relocation system implemented, which did not allow for a change in the economic profile towards more heterogeneous models, although this would take place once the first phase of relocation of the original resident population had been completed.

This intervention has resulted in **adequate living space** that is more in line with current standards and has improved the residential structure and coexistence. The system proposed under the expropriation act made it possible to reduce, and almost eliminate, the problems of occupation and empty dwellings in the area, and the gentrification processes associated with this type of project.

PROCEDURE

The historic demand of the residents and groups in the Zaidín neighbourhood for public works in the Santa Adela area was carried out by defining an Area of Urban Transformation and Improvement called ATM-2 Santa Adela in the Granada General Urban Development Plan, which was finally approved in 2001.

One of the first measures taken was to open a **Technical Information and Advice Office** in Santa Adela in March 2004, in the centre of the neighbourhood, which was in direct contact with the neighbourhood.

The public action was planned in the General Urban Development Plan of 2001, and launched in October 2003, by commissioning the technical documents that would allow the Special Plan to be implemented and by defining the area covered by pre-emption and first refusal, with the aim of ensuring municipal intervention and preventing speculation.

The first phase started in 2004 and ended in 2007 with the delivery of the new homes to the residents. The second phase was launched in 2006 and, after demolition, development and building works, was completed in 2010. The third phase was launched in 2018 and is scheduled to be tendered in June 2022.

REGULATORY FRAMEWORK

The typical profile of the resident population is low-income. The grants for the project came from European funds and from the three administrations involved in the project: state, regional and local, as well as funds from the Integrated Sustainable Urban Development Strategy (EDUSI by its Spanish acronym). The City Council carried out the first and second phases, building 149 new homes in the first phase and 257 homes in the second phase. The collaboration of the Regional Government of Andalusia was requested for the third phase through the State Housing Plan and the works are expected to be put out to tender in June 2022.

The rehousing programme that went with the reform plan, and which was recognised as an innovative practice, involved paying for residents to be moved and rehoused, offering them a choice of three options: (1) live in rented accommodation near Santa Adela, managed by the technical office, (2) provide a financial amount to the owners to manage their own relocation or (3) move to live with relatives during the renovation, and benefit from the relocation assistance programme..

This relocation programme made it possible to carry out the works and **relocate residents in the same areas,** which avoided them having to move away, thereby disengaging the population during the process, and ensured neighbourhood participation in social programmes (which were compulsory after the expropriation agreement was signed).

The Regeneration Programme made it possible to adapt buildings and the interior of public homes, redevelop their common spaces and, where necessary, demolish dilapidated residential buildings and replace them with new ones.

ASSESSMENT

LESSONS LEARNED

The creation of the Santa Adela Technical Information and Advice Office in the neighbourhood itself, from the start of the process, allowed residents to resolve their problems and municipal technicians on the ground to learn in detail about each of their specific needs.

The aim was to achieve the **participation of the population** affected throughout the process, through technical and social support from the outset, thereby making sure that there was continuity, follow-up and a real link with them.

In addition, a works monitoring committee was set up, made up of residents of the neighbourhood, social workers and technicians responsible for the works, and monitoring also took place through the Advisory Council, surveys, a citizen participation forum and public briefings.

Moreover, the social stimulus programmes and grants included experiences associated with raising social awareness, carrying out activities linked to the historic memory of the place, programmes aimed at assisting groups with special difficulties by strengthening **support networks,** monitoring social cases and intercultural mediation. They were also aimed at improving economic development and employment opportunities, collaboration and volunteer networks through programmes focused on supporting business and trade activities, collaborating with the Zaidín Women's Network and coordinating entities, proposing social programmes such as sheltered housing for the elderly, social housing and rental programmes, and creating new facilities.

GOVERNANCE AND TRANSFERABILITY

Urban regeneration in the Santa Adela neighbourhood was one of the most **representative at a national level** and was recognised as being innovative and exemplary by the Polytechnic University of Madrid in its study "Innovative management and funding formulas for neighbourhood regeneration actions", making it a good example of action for other neighbourhoods of a similar nature.

As in other similar actions, the role of the City Council as the driving force behind the action and the neighbourhood platform are worth mentioning, as is the collaboration of the Andalusian Regional Government and the General Administration. The structuring of funding by drawing on funds from different administrations should also be highlighted.

SUSTAINABILITY

The action was notable for its commitment to environmental, economic and social sustainability criteria, as evidenced by the physical improvement of housing and the effective use of public spaces, **accessibility and habitabilit**y, and measures related to mobility, energy saving and cogeneration of energy, as well as waste collection and technical innovations (materials and equipment), among others.

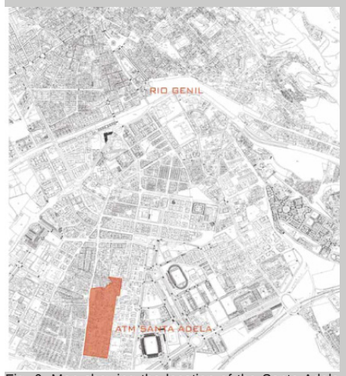


Fig. 6. Map showing the location of the Santa Adela neighbourhood.


Fig. 7. Results.


Fig. 8. Results.


Fig. 9. Results.


Fig. 10. Mural in one of the neighbourhood courtyards.

DIGITAL ERA

9 STRATEGIC GOAL LEAD AND PROMOTE DIGITAL INNOVATION

SPECIFIC GOALS

9.1. PROMOTE THE KNOWLEDGE SOCIETY AND MAKE PROGRESS TOWARDS DEVELOPING SMART CITIES

- Missions Project, Las Naves. Valencia.
- Zaragoza City of Knowledge.

9.2. PROMOTE E-GOVERNMENT AND BRIDGE THE DIGITAL DIVIDE

- Smart village, Ansó.
- Rivas smart city.

DATA

LOCATION
Valencia, Spain.

ACTORS
· Valenci City Council.
· Valencian Regional Government,
· Spanish Government.
· European Commission.
· Las Naves, the centre for social and urban innovation.
· Florida University, Valencia.
· University of Valencia.
· Polytechnic University of Valencia. Fundació Horta Sud and Innowa-the natural (r)evolution.

DATES
· March 2019: Approval of the "Mission-oriented ideas" proposal.
· April - September 2019: Workshops, dialogues and debates on city models.
· 2020: Search for alliances and support.
· May 2020: Approval of the Missions Valencia 2030 strategic framework.
· 2021: Promotion of citizen participation processes to choose missions.

AREA OF ACTION
City of Valencia, about 134.6 km².

SOURCES
Missions Valencia 2030 Project:
https://www.missionsvalencia.eu/?lang=es

RECOGNITION
OTAEX Award 2019 in the category of Urban Planning and Environment.

PHASE
In the process of implementation.

SUMMARY

In 2019, Valencia City Council launched the Missions Valencia 2030 project as a **governance model** for innovation based on specific objectives, called Missions, aimed at improving the lives of citizens.

This initiative is aimed at turning the city of Valencia into the "European Capital of Innovation" by being a healthier, more sustainable, sharing, entrepreneurial city. Valencia is committed to becoming a benchmark for Europe in terms of innovation within 10 years (by 2030) by involving all of its stakeholders: the public sector, academia and research centres, the private sector and civil society.

To achieve this, a range of horizons and targets have been identified, of which 6 were chosen for 2021.

OVERVIEW

OBJETIVES

As a general objective, the city council set itself the goal of governing **innovation** in the city of Valencia in a strategic, coordinated, cross-cutting manner, anticipating mission-oriented trends in Europe and carrying out the necessary organisational and instrumental transformations to promote it. It also proposed building and strengthening a set of local, regional, national and international alliances and networks focused on innovation, with people and organisations pursuing the same goals with the aim of ensuring that relationships forged create value for the city of Valencia and its inhabitants.

The city committed to pushing for and working towards applying to be one of the 100 **European cities** selected to be part of the European Mission entitled "100 climate-neutral cities by 2030 - by and for citizens". The approval of a mission to make Valencia a climate-neutral city is an opportunity for Valencia due to its impact on people's health, sustainability, ecological transition, adaptation to climate change, attracting investment, boosting carbon-neutral economic initiatives, creating jobs and boosting research and innovation.

More specifically, this mission would make it possible to take action in a wide range of sectors and disciplines: waste management, mobility, food, urban planning, lighting, industry, land and maritime transport, education, etc. It would also create innovative solutions to reduce the amount of waste, optimise the sustainable distribution of products and improve waste collection and sorting processes. Furthermore, the goal was to turn Valencia into an urban model of a city where green and blue infrastructure plays an important role in all areas (construction, urban planning, mobility, energy supply, resilience to climate change, etc.), and at all scales (buildings, streets, neighbourhoods, cities, metropolitan connections, etc.). Finally, the aim was to encourage the emergence of innovation projects from all sectors and activities that could demonstrate the impact associated with rational, high-quality, local consumption.

BACKGROUND

The Missions Valencia Plan took the previous situation in Valencia into account based on three main aspects.

Firstly, as a healthy city: in 2018, before this project was approved, the Regional Ministry of Universal Health and Public Health published a report on "Health Inequalities in the Valencian Community" which, in general terms, warned of the existing **health inequalities** in Valencia.

This was one of the many factors that prompted the creation of the Missions Valencia 2030 project from a health perspective.

Secondly, Valencia as a sustainable city: this deals with the great urban challenge faced by the major European cities in terms of sustainability – energy consumption, CO2 emissions, waste management, etc. Aware of this circumstance, Valencia City Council decided to support its 2030 horizon by **tackling this challenge.**

And finally, Valencia as a sharing city: in terms of the perception of loneliness as a serious social problem. Valencia is above the Spanish average for people over the age of 65 who confess to feeling **lonely.** This is one of many indicators that the city council took into account when identifying the need to promote innovations that would make Valencia a city with greater social cohesion, a more egalitarian city, and one that is more responsible towards its inhabitants.

DESCRIPTION

The Missions Valencia 2030 Project is a total urban innovation governance model. It is based on specific objectives, called "missions", which are intended to have a **positive impact** on improving the lives of the people who interact in the city of Valencia. To this end, it seeks to foster innovation with purpose, which will decide on specific missions for Valencia in 2030 in a joint, participatory manner.

The Missions Valencia 2030 Project proposes missions based around 5 strategies. (1) Govern innovation, (2) Create an innovative outlook and culture, (3) Promote social and urban innovation, (4) Strengthen innovation alliances and networks, and (5) Communicate the value of innovation in society.

With these aims in mind, the Missions Valencia 2030 Project uses missions to bridge the enormous gap between the major challenges facing humanity and the R&D&I projects that are being developed to solve them. These missions challenge research and innovation to make Valencia a city that is:

- Healthier, by aiming to improve people's health as the main focus of research and innovation.
- More sustainable, by looking after the health of the surroundings and environment in which the people of Valencia live and interact.
- More sharing, based on a firm commitment to leave no one behind and to reduce the social inequalities that exist.

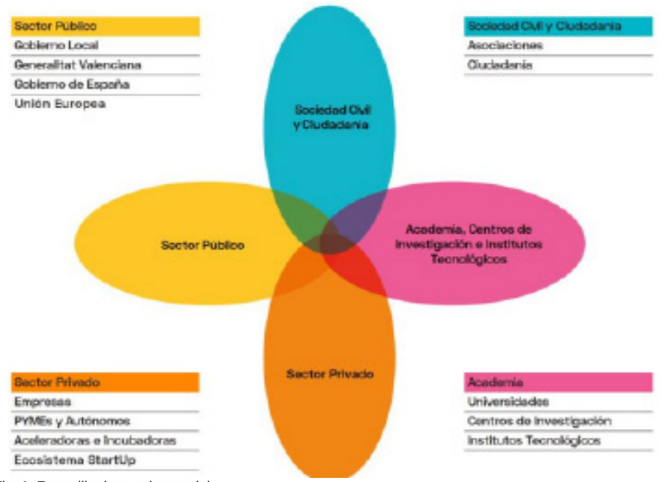


Fig. 1. Four-pillar innovation model

Fig. 2. Valencia City of Innovation Award.

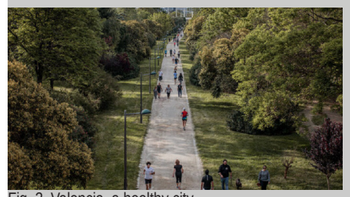


Fig. 3. Valencia, a healthy city.

Fig. 4. Valencia, a sustainable city.

Fig. 5. Valencia, a sharing city.

Fig. 6. Valencia, an entrepreneurial city.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.2 Ensure functional complexity and diversity of uses.
2.5 Promote urban regeneration.
2.6 Improve the quality and sustainability of buildings.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

- More entrepreneurial, by strengthening its productive fabric and promoting the processes for the full digital transformation of society, which will allow the city to be more resilient and overcome crisis scenarios more quickly.

The Missions Valencia 2030 initiative had its origins in the **analyses** and evaluations that the European Union has been carrying out since 2018, on how the great efforts made in European research and innovation up to 2020 have worked, in the interests of learning from them and formulating new public policies in this area towards 2030.

Each mission is made up of a set of research and innovation projects from the four legs of the innovation model, i.e. driven by Valencia City Council, universities and research centres, companies and freelancers, and civil society and collectives.

RESULTS

The main result was the definition of one of the 6 Missions that will guide the city's development until 2030.

The first to be finalised, in February 2021, was **Valencia Climate-Neutral City**. It was formulated as part of the Valencia 2030 Urban Strategy which, on the one hand, structured the cross-cutting coordination and roll-out of the work of various delegations and the local public sector, and, on the other, built the alliances, networks and public-private partnerships needed to drive the systemic innovations and transformations required for the success of the Valencia Climate-Neutral City mission.

This mission was aimed at learning how to **systematically transform** neighbourhoods in Valencia so as to be able to absorb 100% of the CO2 emissions generated. To this end, a total of thirty projects were included in this mission to be implemented over a number of years.

PROCEDURE

During the development process of this project, the following milestones when selecting possible missions for Valencia are worth mentioning and their subsequent dissemination:

On March 29, 2019, the Governing Board of Valencia City Council approved the proposal "Mission-oriented ideas. Challenges for Valencia. 2030" as a framework document for the Missions VLC2030 initiative to guide public efforts and start studies and work to further mission-oriented research and innovation in Valencia under the scope of European initiatives.

Between April and September 2019, workshops and debates were held and documented on the city models presented (healthy city, sustainable city and sharing city), involving references to the four pillars and led by Las Naves. The aim of this process was to identify the areas of importance for the city of Valencia on which to focus.

Valencia's set of 6 innovation missions for 2030 will be the focus of public research and innovation efforts and the alliances required for the city's innovative ecosystem to adhere to them will be structured. A wide-ranging, open **social communication** process will be initiated to explain the public value sought, and to get the maximum involvement, action and awareness of Valencian citizens and society about Missions Valencia 2030.

On June 12, 2020, the Governing Board approved the presentation of Valencia's candidacy for the European Capital of Innovation in 2020, with the Missions Valencia 2030 Project as an experiment with innovation models to mobilise the eco-innovation system and have an impact on people's lives.

REGULATORY FRAMEWORK

- Valencia General Urban Development Plan.

ASSESSMENT

LESSONS LEARNED

The following lessons can be drawn from the analyses and diagnoses carried out based on the **evaluation and experience** accumulated in deploying previous European research and innovation policies:

- Citizens do not perceive that R&D&I improves their lives.
- There is too much distance between humanity's challenges and R&D&I projects.
- By choosing sectors and technologies in advance, we rule out others.
- Key questions were omitted prior to innovating.
- Sometimes trends and fashions were followed.

Other lessons were also learned from the mid-term evaluation of Horizon 2020:

- Support cutting-edge innovation.
- Create greater impact through a mission-oriented approach and citizen participation.
- Strengthen international cooperation.
- Strengthen openness.
- Rationalise the funding landscape.
- Encourage participation.

GOVERNANCE AND TRANSFERABILITY

Valencia was recognised as one of the 6 best innovative cities in Europe, with a prize of 100,000 euros. It certainly raised the city's profile and could act as an urban model for the rest of the world's cities. Moreover, there are numerous face-to-face and online events where talks, conferences and debates are held on "Missions Valencia 2030: Mission-oriented research and innovation for Valencia (Horizon Europe)".

SUSTAINABILITY

The Missions Valencia project acts directly on the **three pillars** of sustainability from a cross-cutting perspective of governance and innovation. In relation to environmental sustainability, the aim is to foster the creation of innovative solutions that make it possible to achieve the commitments taken on in terms of reducing CO2 emissions and the consumption of renewable energies, without losing sight of the economic opportunity that innovation in this area could represent for the city.

In order to achieve social sustainability, the aim is also to promote innovative formulas that make it possible to understand the phenomenon of loneliness, by looking into its connotations and, fundamentally, its causes, in order to eradicate it at source. The aim is also to **raise awareness** in society, by highlighting these increasingly frequent situations through an intergenerational dialogue, in order to motivate a new model of coexistence. Moreover, the aim is to reduce general inequalities in society, focusing on unfair, avoidable differences between social groups, including specific groups such as people with functional diversity, in order to leave no one behind and to offer the **same level of opportunities** for progress and collective well-being.

Fig. 7. Presentation of the first mission.

Fig. 8. Valencia Missions 2030 Awards, prizes awarded to 37 innovative projects.

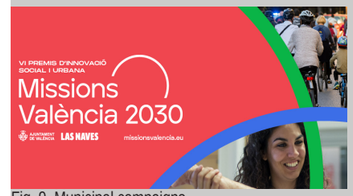


Fig. 9. Municipal campaigns.

Fig. 10. Poster for the 'Innovation Missions and Urban Agenda' event.

Fig. 11. The .0 Master Plan, included in the first mission presented, won first prize.

SUMMARY

Zaragoza City of Knowledge is a foundation committed to promoting and developing the knowledge society. This foundation, which promotes science, technology and art, has become a local benchmark. Thanks to its location in the Etopia Center, it has a solid infrastructure in which a number of scientific, cultural and artistic events take place throughout the year. This foundation takes the initiative when it comes to introducing the citizens of Zaragoza to new technologies and expanding popular knowledge.

Since it was founded in 2004, it has sought to **promote a city open to knowledge and learning**. The Zaragoza City of Knowledge Foundation strives to contribute to making Zaragoza a more innovative, creative, participative city, open to the new development expectations that digital technologies bring with them.

OVERVIEW

OBJETIVES

The objectives of the Zaragoza City of Knowledge Foundation are:

- To promote the development of the Knowledge Society in Zaragoza in all areas of civic life.

- To make Zaragoza an advanced city in terms of using **new information technologies**.

- To disseminate scientific culture and knowledge across all social sectors in Zaragoza, particularly to young people.

- To foster the spread of opportunities offered by new technologies to all citizens and to combat digital exclusion.

- To promote Zaragoza's role in the field of new digital culture and disseminate it to the general public.

- To support new entrepreneurial initiatives in the field of science and technology.

- To contribute to the **scientific and technological development** of Zaragoza, in areas that open up new opportunities for local companies and make it possible to improve the provision of municipal public services.

- To collaborate in achieving the strategic goals that Zaragoza City Council has set itself in terms of the information society.

- To incentivise the creation of locally produced content in electronic format and its distribution via the Internet and other channels.

- To carry out studies and research to understand the current situation and its evolution to the knowledge society and its implications for the city and its future development.

BACKGROUND

Zaragoza is one of the most important urban environments in Northern Spain. Its location, structure and urban complexity offer many possibilities for citizens. This is why it has become a magnet for people, talent and innovation that should be **much better exploited.**

DATA

LOCATION
Zaragoza, Aragón.

ACTORS
· Zaragoza City Council.
· Ibercaja Foundation.
· University of Zaragoza.
· San Jorge University.

DATES
· November 2004: creation of the Zaragoza City of Knowledge Foundation.
· 2013: inauguration of the "Etopia Center for Art & Technology.

AREA OF ACTION
City of Zaragoza.

SOURCES
Zaragoza City of Knowledge Foundation:
https://www.fundacionzcc.org/es/

PHASE
In progress.

DESCRIPTION

The Foundation is currently working to make Zaragoza a **city of knowledge**. It has set up the "Mediation Programme", which consists of a new methodology that encourages more direct work with citizens, and the creation of channels of communication between the different actors, projects, groups and spaces that coexist in a centre of this complexity. More specifically, it is carrying out 1**2 projects**, some of the most important of which are:

- European Artificial Intelligence Laboratory: a European network in which to work on the impact of artificial intelligence through culture. The project, which is co-funded by the European Union's Creative Europe programme, focuses on aspects that go beyond the technological and economic horizon to look at cultural, psychological, philosophical and spiritual aspects.

- ETOPIA_KIDS: Learning and experimentation for children in the fields of arts, technology and science. It started in the summer of 2013 with the first Etopia Kids urban camp, gaining immediate recognition for its innovative nature and social impact.

- ENTREPRENEURSHIP, EMPLOYMENT AND BUSINESS INNOVATION: Business innovation underpinned by digital creative industries.

- ENTER: Programme of shows and stage productions for Etopia.

- NOCTILUCA: Programme of artists invited to the Etopia Media Façade.

- HEDY LAMARR RESIDENCIES: Residency programme for women artists by invitation. In this programme, the Foundation's team selects a woman whose work or line of research falls within the lines of action of the Art and Technology Centre, and whose career and reputation could benefit from her time at Etopia, where she can develop a project involving a stay, producing work and giving back to the citizens of Saragossa.

- LA MISTURA: **Festival of remix culture** in the contemporary digital environment. The La Mistura festival reflects on remix culture and intellectual property in the contemporary digital environment. A forum for debate that aims to revisit the starting hypothesis of Remix Culture in view of the emergence of remixed cultural productions.

Fig. 1 Edificio Etopia.

FZC Fundación Zaragoza Conocimiento

Fig. 2. Zaragoza City of Knowledge Foundation.

PROYECTO - UTOPÍAS EDUCATIVAS

utopías edu
asociación de utopías educativas

Fig. 3. Utopías Educativas (Educational Utopias) project.

PROYECTO - LABORATORIO EUROPEO DE INTELIGENCIA ARTIFICIAL

AI LAB
European ARTificial Intelligence Lab

Fig. 4. European Artificial Intelligence Lab Project.

Fig. 5. 5th Call for Creative Screens of the Zaragoza City of Knowledge Foundation 2021.

Fig. 6. Poster for the "La Mistura" festival of remix culture in the contemporary digital environment.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

9.2 Promote e-government and bridge the digital divide.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

- UTOPÍAS EDUCATIVAS: an open forum for teachers carried out by teachers, for exchanging innovative experiences.

- CREATIVE SCREENS ETOPIA: Competition for the best projects for the Etopia Façade aimed at students. In this competition, a first prize and two second prizes are awarded to students from the Zaragoza School of Arts and Crafts, the CPA Salduie training centre (of the San Valero Group), the Huesca School of Arts and the Aragon School of Design, who develop works for the Etopia Art and Technology Centre's Media Façade, with the aim of promoting and facilitating access to this cutting-edge creative medium.

D&I SESSIONS: Forum in which to reflect on the most innovative ways, approaches and formats for explaining science. This meeting for professionals, experts, communicators, educators and institutions that work in the field of popularising science has quickly become one of the must-attend events on the national calendar. D+I Innovative Dissemination Sessions aim to introduce the public to science and improve the effectiveness of dissemination by using new tools to **surprise and excite**.

RESULTS

Throughout 2020, the Foundation managed to carry out a number of projects and initiatives focused on Zaragoza and promoting its culture and science. Several events were organised to further promote entrepreneurship, employment and business innovation. Wordcamp Zaragoza 2020 was held, with the aim of getting to know and learn what and who is behind Wordpress. The 4th Coordinadas Forum also took place in 2020 in an online format as part of Entrepreneurship Week in Aragon. This was aimed at **raising the visibility of women entrepreneurs**, promoting the activity of women entrepreneurs through a common platform, dealing with the training requirements for developing their businesses and setting up networks between women entrepreneurs.

DIWOKS (Do It With Other Kids) Workshops, aimed at young people between the ages of 14 and 18, were offered throughout the year to promote science and technology. These are spaces for teamwork, **participation and experimentation in the CESAR Laboratories** at Etopia. Another activity that took place was the "Open Digital Fabrication Thursdays and Fridays", open sessions with specialist staff who provided technical support and advice to people who came to the space (with 3D printing machines, an electronics area and an area with carpentry tools).

Finally, in a quest to promote contemporary culture in a digital context, the Enter project was held in the form of three events: "El tiempo por las nubes" by Teatro para Armar, "Buceando el cielo de Hipnótica", by Circo Teatro and "SHuSH", an audiovisual show by the young artist RRUCCULLA.

PROCEDURE

The Zaragoza City of Knowledge Foundation was set up in 2004 at the initiative of Zaragoza City Council, as a public-private project to promote the development of the Knowledge Society and the Digital Mile.

During its first ten years of existence, the Foundation focused mainly on **promoting technology-based entrepreneurial culture** in Zaragoza. During this time, the foundation, supported by Zaragoza City Council, designed and set up the municipal system of business incubators. Since 2011, this initiative has given a boost to many entrepreneurs and small businesses, effectively contributing to a healthier and more competitive local economy.

The turning point for the Foundation and for the promotion of knowledge in Zaragoza came in 2013. In that year, the "**Etopia Center for Art & Technology**" opened, and became the new headquarters of the Zaragoza City of Knowledge Foundation thanks to an agreement signed with Zaragoza City Council. It was designed as a global centre of innovation, creativity and entrepreneurship for the digital city and is a different, inspiring infrastructure in which the Foundation carries out all of its activities, providing enormous potential for the future.

ASSESSMENT

LESSONS LEARNED

The fruitful collaboration between the Foundation and its institutional, corporate and individual collaborators has ensured that this initiative has become a **driving force** for a more innovative, prosperous Zaragoza.

This initiative has invested in the **technological, scientific, cultural and entrepreneurial knowledge** of Zaragoza's citizens for more than two decades. In addition to making the city a knowledge engine, other lessons can be learned from this initiative. One of the things that should be highlighted is that organisations such as the Zaragoza City of Knowledge Foundation can become a useful and efficient instrument for attracting (national and European) funds. Another contribution made by initiatives such as this is the emergence of interesting collaborations between different social agents, private and public, and institutions to create a climate of innovation and entrepreneurship that drives the city itself.

GOVERNANCE AND TRANSFERABILITY

Citizen participation is one of the pillars that have determined the foundation's activities since it was set up. The Etopia centre hosts a number of courses, competitions, camps and events that seek to involve Zaragozan society in technological learning and creating new scientific and cultural content. At present, in addition to the City Council itself, the companies Telefónica, Ibercaja (which is the second vice president of the Board of Trustees) and Veolia are active trustees of the Foundation. Since July 2012, the two universities in Zaragoza have also been members of the Foundation's Board of Trustees: the University of Zaragoza and San Jorge University.

The Foundation is a not-for-profit public-private entity. 50% of the founding capital (30,000 euros) was provided by Zaragoza City Council and the rest by five private companies. The funding of the activities planned each year always comes mainly from private sources, with public funding (from the City Council or other grants and projects) representing on average one third of the Foundation's annual budget.

SUSTAINABILITY

An initiative like this, with what it offers the city of Zaragoza, demonstrates its usefulness in moving towards more sustainable urban environments. It acts as a pull for new entrepreneurs, and for consolidating solid scientific, artistic and creative communities within the city. A society that is more open to new technologies and a wider knowledge of science and the arts is a **society that is better prepared** to face the urban challenges of the future in a sustainable way. Moreover, one of the pillars on which many urban transformations will be based is the digital improvement of cities. The existence of organisations such as this one, which strive to **improve society's knowledge** of scientific, technological and cultural issues, put Zaragoza in a privileged position when it comes to facing the future.

Fig. 7. Façade of Etopia, the headquarters of the Zaragoza City of Knowledge Foundation.

Fig. 8. Inside the Etopia building.

Fig. 9. Access to one of the Etopia buildings

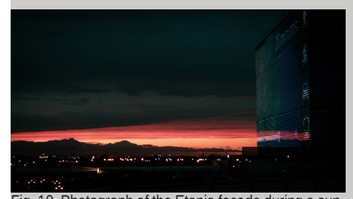


Fig. 10. Photograph of the Etopia façade during a sunset in Zaragoza.

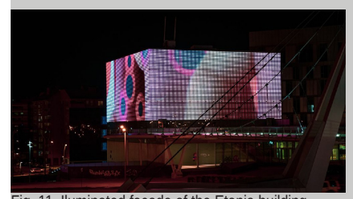


Fig. 11. Illuminated façade of the Etopia building.

DATA

LOCATION
Ansó, Aragón.

ACTORS
· Ansó Town Council.
· Huesca Provincial Council.
· Government of Aragon.
· European Union.
· Preparatory action on Smart Rural Areas in the 21st Century.
· Paisaje Transversal.

DATES
· 2019: Ansó drew up a "Population Attraction and Retention and Innovation Plan".
· April 2019: Ansó applied as a candidate for "Smart Rural 21".
· December 2019: Ansó was included in the European programme "Smart Rural 21".
· July 2020: Ansó started drawing up the Ansó Smart Village Strategy.
· September-October 2020: citizen participation process.

AREA OF ACTION
Municipality of Ansó (251 km²).

SOURCES
Smart Rural Ansó:
https://www.smartrural21.eu/villages/anso_es/

PHASE
In the implementation phase.

SUMMARY

The village of Ansó is located at the end of a valley of the same name at the westernmost end of the Aragonese Pyrenees. The natural characteristics of its surroundings (in an excellent state of conservation), coupled with the village's cultural and architectural wealth, meant that Ansó was declared an Asset of Cultural Interest in 2005. Despite its cultural and natural value, it faces the great challenge of **depopulation** and all the problems that this entails. Ansó Town Council (Huesca) and the Government of Aragon proposed the idea of developing an initiative to revitalise the municipality and turn the town into a renovated environment that is up to date with new technologies. This proposal was part of the European "**Smart Rural 21**" programme and explored various actions and ideas to turn Ansó into a technology hub with new, updated services capable of attracting a new population.

OVERVIEW

OBJETIVES

The aim of this project was to create the ideal conditions (in terms of technology, energy and human resources) to stabilise the population and attract new residents. This would improve the quality of life of the whole community and have a positive and long-lasting effect, among other things. The objective was to propose a set of conditions capable of **stabilising the town's population**. Specific lines of action were identified:

- Improve network connectivity, and install more developed, competent forms of internet connectivity and digital accessibility to attract teleworking, in line with new professional needs.

- Facilitate access to housing: this line of action was considered to be of paramount importance if the other actions were to be effective and successful.

- Encourage entrepreneurship: to promote the development of new forms of work in Ansó, making it easier for new settlers and locals to have a place to start up their own businesses.

- Have a positive impact on the energy transition: have a positive impact on the environment and adapt Ansó's energy model to a more sustainable one than the current one in order to supply municipal buildings and lighting in the town.

- Facilitate family/social development: think of technological and entrepreneurial development alongside work-life balance, community cohesion, educational innovation, improved access to the environment and digital dissemination.

BACKGROUND

In environmental terms, part of the municipality of Ansó is occupied by Western Valleys Natural Park and the Protected Landscape of Foz de Fago and Biniés. Traditionally, Ansó was always known for its sheep and cattle farming, forestry and trade across the border with France. Over the last few decades, this pattern of rural life has changed drastically and tourism has become the most important economic activity. In 2020, the municipality had a total of 386 inhabitants, down from about 500 in 2000. This **continuous, long-term** decline is causing the loss of many services, threatening the future existence of the town. If the current trend continues, there will come a time when it will no longer be possible to ensure accessibility to basic services such as health, education or administrative services, which will exacerbate the problem.

Although Ansó is located in a privileged natural environment, its location, in the interior of the Pyrenees mountain range, makes it difficult to access and tends to isolate it. The capacity for entrepreneurship and keeping businesses and trades running in such an environment is limited. In 2019, Ansó drew up a "Cross-cutting Strategy on Population Attraction and Retention and Innovation" with the aim of reversing this situation. The way to achieve this **reversal** was to create a "smart" development model, through actions that would move towards a more sustainable, technologically adapted future.

DESCRIPTION

The European "Preparatory Action on Smart Rural Areas in the 21st Century" (Smart Rural 21) project is a two-and-a-half-year plan launched by the European Commission (DG AGRI) with the aim of promoting and **boosting technological development** in rural areas across Europe. In 2020, Ansó Town Council applied to join this project, and was the only one of the 224 Spanish towns to do so. The approach taken by Ansó Town Council to join the "Smart Rural 21" programme can be summarised as tackling the town's problems from a **technological, integrated, interconnected and participatory** perspective. Therefore, the 'Smart' concept is not only related to its technological meaning linked to smart cities, but also to a way of tackling challenges from an integrated (incorporating environmental, social, economic, physical, etc. factors) and participatory (putting the inhabitants of Ansó and the needs of the new people that the town wants to attract first) perspective. In order to arrive at a well-structured plan, the first step was to identify the five specific lines of work.

Consequently, the following were defined to "improve connectivity": install optical fibres, install WiFi connection points and extend the mobile coverage network. To "facilitate access to housing": continue the "Neighbourhood Housing Promotion and Rental Assistance Programme", refurbish two municipal dwellings and build four starter homes. In terms of "promoting entrepreneurship": fit out a municipal space to create a coworking space, refurbish a municipal space to create multi-purpose buildings and promote entrepreneurial projects. In relation to the positive impact on the ecological transition: install renewable energies, improve waste management and implement the Environmental Services Appraisal project. Lastly, to "facilitate family/social development", proposals were made to facilitate a work-life balance, strengthen community involvement, help educational innovation, improve the management of and access to the environment and broaden the communication strategy.

Fig. 1 Image presenting Ansó's Smart Village strategy.

Fig. 2. Map of the municipality of Ansó showing its location in Spain.

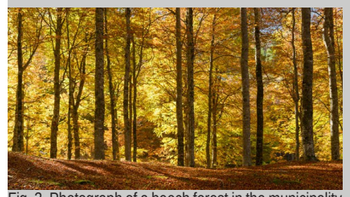


Fig. 3. Photograph of a beech forest in the municipality of Ansó.

Fig. 4. Graph showing the evolution of the population of Ansó between 2000 and 2020.

Fig. 5. Image used to present the Smart Village strategy to the public.

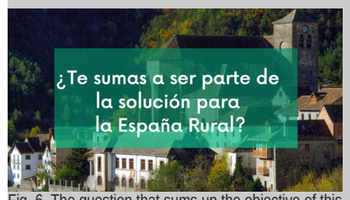


Fig. 6. The question that sums up the objective of this project.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.2 Promote e-government and bridge the digital divide.

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.3 Improve the overall quality and accessibility of public spaces.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

RESULTS

Although the Plan is still in force, several actions have already been carried out. A 100 MB **optical fibre** cable has already been installed throughout the town, designed to improve internet connectivity and facilitate teleworking, and the first electric car charging point has also been installed in the town. And in September 2020, work began on refurbishing a building to convert it into co-working offices with a positive social impact.

Since 2019, Ansó Town Council has been offering facilities to owners of unused housing and to people interested in moving to the municipality, thereby facilitating the rental process. So far, this has led to new residents settling in Ansó. Renovation and refurbishment of some of the municipal flats has also begun so that they can be put on the rental market.

In addition, since August 2020, the teaching community has set up an outdoor classroom to teach the school curriculum through project-based learning – designing, creating and caring for a small animal farm, a garden and installing renewable energy and irrigation systems.

Earlier that year, recycling and composting areas were installed throughout the town to provide better waste management.

PROCEDURE

In mid-2019, Ansó Town Council began to design the "Population Attraction and Retention and Innovation Plan", an initiative that sought to strike a balance between natural conservation and improving living conditions in order to turn Ansó into an environment that would attract people. The council noted the similarities between the principles of its plan and the guidelines in "**Smart Rural 2021**", and in mid-2019 submitted its application to join.

Therefore, a lot of the measures and actions that have been carried out since 2019 were in response to the strategies set out in the Population Attraction and Retention and Innovation Plan.

The smart village plan or strategy was drawn up by the town council in 2020. The Paisaje Transversal team provided advice and supported the process of creating the final Action Plan throughout the second half of the year through meetings, encounters and debates.

REGULATORY FRAMEWORK

The regulatory framework for implementing this good practice was mainly the Ansó General Urban Development Plan.

ASSESSMENT

LESSONS LEARNED

The selection and inclusion of Ansó in the **Smart Rural 21 programme** drove and contributed to identifying the most important lines of action that needed to be put in place in the municipality. This European support was of great help in motivating this project and consolidating a plan for the future in the form of the Smart Village of Ansó.

Thanks to this strategy, the municipality of Ansó now has a long-term plan, with a horizon set for 2030, which will allow it to tackle many of the town's challenges and problems and halt its demographic and socio-economic decline. A well thought-out **technological approach**, focusing on services for society and new possibilities for the future is a possible way forward that many other rural regions could replicate in order to address **demographic challenges**.

The "Smart Villages" strategy made it possible to go further and expand some of the contents of the plan itself, and to incorporate public participation more directly into it. The "Population Attraction and Retention and Innovation Plan" was the basis for the "Smart Villages" strategy, but it went a step further in terms of comprehensiveness, innovation, sustainability and participation.

GOVERNANCE AND TRANSFERABILITY

Before the inclusion of Ansó in the Smart Rural 21 Programme, the municipality had already received various forms of support and, after joining the European programme, this increased. For example, it was part of a pioneering national project called "Huesca Banda Ancha" (Huesca Broadband), through an ERDF grant in collaboration with Huesca Provincial Council and the General Directorate of Aragon (both bodies that manage the region in which Ansó is located).

It also received aid from Huesca Provincial Council's "**Housing Plan**", which provided the necessary funding to set up projects for the emancipation of young people and retaining and attracting new residents to rural areas in the province of Huesca, which made it possible to design and create four new homes, the financial cost of which was covered by the Plan.

Smart Village Ansó also benefited from the "Aragón Infoenergía" programme as part of the LEADER programme, which provided information support and the advice needed to implement the renewable energy actions that would be carried out.

An active, comprehensive **participation** process was carried out between September and October 2020 to draw up the document setting out the measures for Smart Village Ansó. Paisaje Transversal co-led a consultation meeting to discuss the ideas and interests of the inhabitants of Ansó in order to involve the whole local community in the SWOT analysis for Ansó. The proposals were included in the smart strategy action plan.

SOSTENIBILIDAD

El Ayuntamiento de Ansó le planta cara a pérdida de población desde la tecnología pero sin perder de vista el reto de la sostenibilidad. El modo de vida rural existente en Ansó presenta gran número de ventajas a nivel sostenible en comparación con otro urbano.

Proximidad, una economía más circular o el respeto al entorno natural, son valores cruciales para afrontar un futuro más sostenible. Todas estas son caracteristicas propias de entornos rurales y, por ello, en un futuro más sostenible los municipios como Ansó tienen mucho que aportar.

Si logra resolver el gran reto de la despoblación, o al menos modificar su tendencia, puede que entornos como Ansó se conviertan en ejemplos de modelos urbanos más sostenibles que difundir. Buscar en la **tecnología una herramienta** con la que combatir ese problema y potenciar las virtudes de los entornos rurales puede presentar nuevos horizontes tanto para la ruralidad como para la sostenibilidad.

Fig. 7. Photograph of Ansó.

Fig. 8. Icon of the European programme Smart Rural Areas in the 21st century.

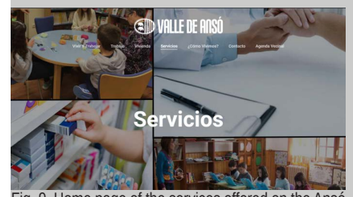


Fig. 9. Home page of the services offered on the Ansó Town Council website.

Fig. 10. Home page of the offer of employment grants available on the city council's website.

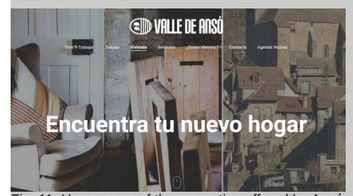


Fig. 11. Home page of the properties offered by Ansó on its official website

DATA

LOCATION
Rivas Vaciamadrid, Madrid, Spain.

ACTORS
· Rivas City Council.
· Head of the Telecommunications Department.
· FEMP.
· AENOR.
· FECYT.
· Spanish Government.

DATES
- 2004: Start of the project.
- 2021: End of the project.

AREA OF ACTION
67,38 km2.

SOURCES
Rivas Vaciamadrid City Council:
https://www.rivasciudad.es/ciudad-inteligente/

PHASE
Implemented.

SUMMARY

The city of Rivas-Vaciamadrid is carrying out various projects that have made it a benchmark for **innovation** and a model of sustainable development. Its policy of energy efficiency and CO2 reduction, embodied in the Rivas Zero Emissions Plan, the extensive deployment of optical fibre and Wi-Fi networks and the implementation and development of the Rivas 2020 Strategy, together with its significant commitment to making rational, intense use of Information and Communication Technologies (ICT) to improve effectiveness and efficiency in the management of public services, are clear examples of the potential it can achieve as a smart, innovative city and promoter of a sustainable socio-economic model.

Rivas has managed to improve **efficiency** in management, which has allowed it not only to save on communications costs but also to manage the energy consumption of all the devices connected to the network much more efficiently.

Rivas City Council decided to commit to the "Smart" development of the city in order to manage municipal resources more efficiently and effectively and to improve the quality of life of its citizens. It has been a part of the Spanish Network of Smart Cities (RECI by its Spanish acronym) since June 2012, as one of the 25 member cities, and leads the group on the environment, infrastructure and urban habitability.

OVERVIEW

OBJETIVES

The implementation of the **smart city** model is complex because it affects virtually all of the city's services. This requires a cross-cutting and integrated vision and involves changes to urban infrastructures and management models.

The objectives of the Rivas Smart initiative are:

- To make savings and improvements in efficiency and effectiveness in managing and providing services.

- To improve accessibility to municipal public services and to communicate with and get closer to citizens, and to promote the improvement and reuse of the city council's current systems.

- To reduce the city's carbon footprint.

- To promote transparent, universal access to data generated by public management for consultation and re-use by visitors, professionals and businesses.

- To promote **interoperability** and correlation between the different municipal services: lighting, irrigation, and mobility, among others.

BACKGROUND

Rivas is located 15.1 km from Madrid and covers an area of 67.4 km2. 70.8% of the city is part of a natural landscape.

It was destroyed during the civil war and was rebuilt by the Directorate General for Devastated Regions in 1954. It was developed with many limitations and had around 500 inhabitants by the end of the 1970s.

At the start of the next decade, the first buildings inhabited by cooperative members began to be built, and it was at this time that the demographic boom began to take off.

DESCRIPTION

The conversion of a city into a **smart city** requires a new management model adapted to the social reality in which public-private partnerships prevail. For Rivas, becoming a modern city involved working on technological modernisation in the short term and, to this end, they considered it necessary to implement policies that lead to sustainable models.

Rivas Vaciamadrid began its commitment to ICT in 2004, with the deployment of an optical fibre network and an ultra-fast multiservice IP network, on which the "Rivas Smart City" project was developed, including flagship initiatives in each of the six areas that Europe attributes to a Smart City: Environment, Mobility, Governance, Economy, People and Living.

In its commitment to the environment, the city council intends to pay special attention to a smart lighting system that allows public spaces to be illuminated with LED devices.

In the field of Smart **Mobility,** Rivas has traffic light control radars to ensure greater road safety and more prudent driving. Rivas also has a Sustainable Urban Mobility Plan (SUMP) with 11 public bicycle rental stations.

As part of the Smart Economy, Rivas promotes the knowledge economy based on creativity and innovation, with the potential to attract talent and investment.

To improve the area of Smart **Governance,** the city has an advanced Open Government portal, which is committed to building an innovative city council model to provide quality, efficient, collaborative services to its environment.

As part of its commitment to improving the field of Smart People, the city council set up the Casa de Asociaciones with flexible opening hours for groups that needed to use this space for their activities.

In the field of Smart Living, security and emergencies are managed through the Eurocop

Fig. 1. Image of the municipality of Rivas.

Fig. 2. Poster for the 4th Rivas Smart City Meeting

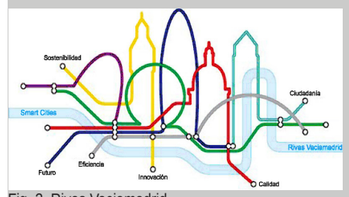


Fig. 3. Rivas Vaciamadrid.

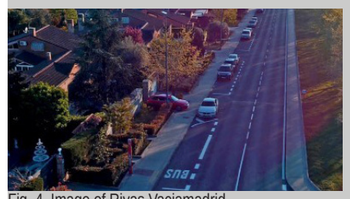


Fig. 4. Image of Rivas Vaciamadrid.

Fig. 5. Image of Rivas.

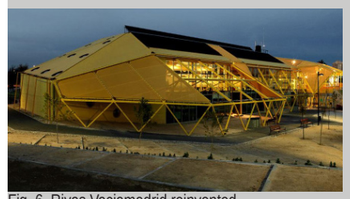


Fig. 6. Rivas Vaciamadrid reinvented.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.2 Promote e-government and bridge the digital divide.

9.1 Promote the knowledge society and make progress towards developing smart cities.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.2 Optimise and reduce water consumption.

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

Eurocop pilot system for data management and centralisation, which, among other things, makes it possible to connect certain information of interest to the police contained in the databases of the different police forces, and to exchange reports on their actions.

RESULTS

In the case of Rivas, the following results were achieved:

- Implementation of a telecommunications network throughout the municipality.

- Solutions to existing problems such as control and management, **consumption** analysis, theft of electrical wiring, management of the use of installations, etc.

- Extending the solution to other components of public roads, such as irrigation, information panels, WiFi, waste management, etc.

- Improved **analysis** of how facilities are used and Open Data model.

- Management of energy consumption in real time of public lighting installations.

- Scalable implementation of an IoT platform in the city that leads to net lighting savings and a reduction from 6.5 Gw in 10,000 lights to less than 4 Gw by replacing 7,000 lights with LED technology.

- Reduced consumption and improved lighting quality. The aim is also to stop emitting 990 tonnes of CO2 per year. Smart control and lighting levels in point-to-point management result in 56% cost savings, 65% energy savings, a reduction in crime and, therefore, improved liveability and 7,541 lights renewed, i.e. 82%.

PROCEDURE

The starting point in 2004 was the Rivas 21.10 **digital** project, which involved applying the Lisbon Strategy to the municipality and creating an optical fibre broadband network with 86 connected offices, WiFi mesh outside the city and inside municipal offices, rental of excess wireless network capacity to operators to boost broadband in the city, e-government, intense use of ICTs and boosting the information society by developing data processing centres.

The Municipal Strategy up to 2020 started in 2011. Rivas 21.20 digital is, in reality, a digital agenda for the city aimed at becoming a connected, smart city, with an open, transparent government, in which technology and green solutions are used to support citizens and sustainability.

REGULATORY FRAMEWORK

Following the ratification of the Kyoto Protocol by the European Union in 2002, Spain began to develop a regulatory framework to meet its commitments on reducing trends with regard to emissions, and a number of strategies that included actions to combat climate change through mitigation and adaptation.

Therefore, the Spanish Strategy for Climate Change and **Clean Energy** (EECCEL by its Spanish acronym) and the National Climate Change Adaptation Plan (PNACC by its Spanish acronym) served as a framework for implementing this good practice.

Similarly, a couple of years ago, Technical Committee 178 on the Standardisation of “Smart Cities” was set up by AENOR, which is helping to bring together concepts and generate standards for this new world, as is happening in other organisations, such as ISO 37120:2014 Sustainable development of community indicators for city services and quality of life.

ASSESSMENT

LESSONS LEARNED

Rivas is a clear example of what a sustainable smart city can be and is acting as a reference point for many other cities.

It is an example of how the use of technology is being implemented in the city’s daily life, and how the city is **sharing** experiences and projects with other municipalities across the country, making Sustainable Development Goal 17 a reality. This goal highlights the importance of building alliances and promoting methods of cooperation to allow all territories to comply with the 2030 Agenda through sharing knowledge and experiences.

GOVERNANCE AND TRANSFERABILITY

Rivas City Council decided to commit to the “Smart” development of the city in order to manage municipal resources more **efficiently** and effectively and to improve the quality of life of its citizens. Its membership of RECI since June 2012, as one of the 25 founding cities, in which it leads the group on environment, infrastructures and urban habitability, and its participation in the AENOR CTN 178 Standardisation Committee on “Smart Cities”, also leading the Subcommittee on Infrastructures is proof of its commitment.

The main promoter of the proposal is Rivas Vaciamadrid City Council, which was initially funded by the Rivas Vaciamadrid Sustainable Urban Development Strategy 2015-2022 (Rivas Vaciamadrid EDUSI by its Spanish acronym). The Rivas Vaciamadrid City Council’s website shows the projects that have been carried out, along with the latest news about the town, particularly about the ‘**smart city**’ and its new projects.

SUSTAINABILITY

There are many challenges facing Rivas when designing its future development, and to overcome them it is essential that the municipal government makes a firm commitment to sustainable urban planning that not only takes the environmental aspect into account, but also the economic and social aspects, which are as important or more important than the former.

For Rivas, the commitment to sustainable urban planning can be summed up in the concept of ‘Smart City’, the implementation of which is well advanced and which aims to make use of innovation and renewable energies in neighbourhood communities and public transport, but also in more everyday aspects, such as managing lighting in public spaces, traffic lights, traffic signs and the bicycle rental service.

In short, sustainable urban planning needs to resolve challenges such as ensuring that citizens have the necessary facilities and services as they begin to fill new urban developments with life, whether these be health centres or public schools. For this reason, the Rivas Smart City project is committed to innovation and technologies as a **cross-cutting** tool to achieve the goals of the 2030 Agenda and the Spanish Urban Agenda.

Fig. 7. Image of Rivas Vaciamadrid City Hall.

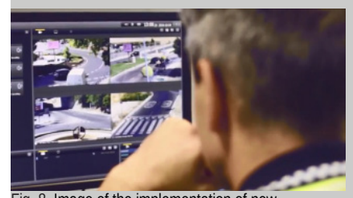


Fig. 8. Image of the implementation of new technologies.

Fig. 9. Image of the implementation of new technologies.

Fig. 10. Image of smart infrastructure in Rivas.

Fig. 11. Image of sensorisation and control devices in the Rivas lighting systems.

INSTRUMENTS AND GOVERNANCE

10 STRATEGIC GOAL IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

SPECIFIC GOALS

10.1. STRIVE FOR AN UP-TO-DATE, FLEXIBLE AND SIMPLIFIED PLANNING AND REGULATORY FRAMEWORK THAT ALSO IMPROVES MANAGEMENT.

- Spatial Planning Guidelines for the Basque Country.
- Law on sustainable spatial and urban planning.

10.2. ENSURE CITIZEN PARTICIPATION AND TRANSPARENCY AND PROMOTE MULTILEVEL GOVERNANCE

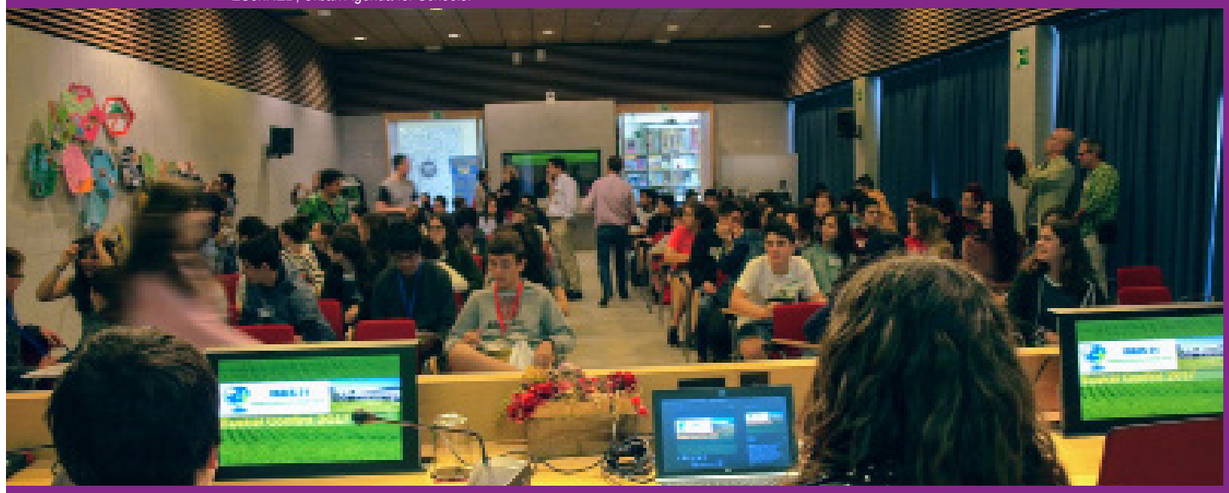
- Murcia Urban DNA.
- Alto Tajo Community of Municipalities Action Plan.

10.3. PROMOTE LOCAL TRAINING AND IMPROVE FUNDING.

- Recovery, Transformation and Resilience Plan.
- Atlantic Axis, cross-border: Spain-Portugal.

10.4. DESIGN AND IMPLEMENT TRAINING AND AWARENESS-RAISING CAMPAIGNS ON URBAN ISSUES TOGETHER WITH THE EXCHANGE AND DISSEMINATION OF KNOWLEDGE.

- Pamplona Urban Observatory.
- ESenRED, Urban Agenda for Schools.



DATA

LOCATION
Autonomous Community of the Basque Country.

ACTORS
· Department of the Environment.
· Spatial planning and housing.
· Jesús María Erquicia Olaciregui (Manager and coordinator of the team writing the guidelines).

DATES
· July 30, 2019: Final approval.
· July 27, 2015: Start of the revision procedure.

AREA OF ACTION
7.229,34 Km2.

SOURCES
Website of the SPGs:
https://www.euskadi.eus/directrices-de-ordenacion-territorial-dot/web01-a2lurral/es/

RECOGNITION
CSCAE Urban Planning Award 2020

PHASE
Completed.

SUMMARY

In 2019, the Spatial Planning Guidelines (SPGs) for the Basque Country will finally be approved in order to update the goals and strategies to the new contextual scenario facing the development of the regions, where issues such as citizen participation, the **gender perspective** and new forms of governance will be dealt with. The SPGs set out seven principles that underpin their preparation and implementation in order to achieve a sustainable, inclusive, vibrant, intelligent, balanced, interrelated, participatory territory.

OVERVIEW

OBJETIVES

The SPGs were drawn up based on an analysis of the state of affairs, an assessment of the positive aspects that have emerged, and an acceptance of the weaknesses identified, so that coherent objectives could be set and achieved by means of useful guidelines.

The SPGs were revised based on a number of guiding principles for adapting the territorial model to the new territorial challenges which, in short, highlight the **added value** of the revised territorial model compared to the territorial model based on the 1997 SPGs. The objectives of the revision of the SPGs were developed throughout the description of the proposed territorial model and are set out below:

- To incorporate green infrastructure and the enhancement of ecosystem services into the management of the physical environment.

- To raise the visibility of the rural habitat in land-use planning.

- To incorporate the transformation sites into the urban system.

- To optimise the use of artificialised land by promoting urban regeneration and mixed uses, and to prevent unrestricted growth by setting the perimeter of urban growth.

- To promote an agile, effective response to the land needs of new economic activities, primarily by regenerating, renovating and re-densifying existing land.

- To include **landscape management** through land-use planning instruments.

- To incorporate the concept of sustainable resource management: water, energy sovereignty, circular economy and connected self-sufficiency (raw material resources).

- To promote sustainable mobility and logistics by focusing on pedestrian and cycling mobility, multimodal public transport and optimising the combination of different modes of transport, in a time scenario in which high-speed train services will be available.

- To include novel issues in spatial planning considered to be of a cross-cutting nature such as universal accessibility, gender perspective, Basque, climate change, health and territorial interrelation.

- To promote good governance in managing public spatial planning policy, primarily through monitoring and evaluating plans, participation, and **administrative integration**.

BACKGROUND

In 1997, the Spatial Planning Guidelines for the Basque Country, the first spatial planning instrument for the entire autonomous community, were finally approved. As a follow-up to these, 14 Partial Spatial Plans and 10 Sectoral Spatial Plans have also ben drafted and approved, in what, as a whole, was the first generation of spatial planning.

Since then, over the years, **new issues and disciplinary approaches** have arisen that need to be taken into account in spatial planning: the challenge of climate change, urban regeneration, green infrastructure, landscape, the circular economy and mobility, among others. In addition, public participation has taken on another dimension, governance has been imposed on territorial government, and, finally, the management of territorial indicators has appeared as an element for measuring human action.

DESCRIPTION

The SPGs are based on an analysis of the context, both in terms of spatial planning and in terms of socio-economic and territorial frameworks. This analysis highlighted the conditions in the Basque Country, which has a rugged orography, a high settlement density, particularly along the Cantabrian coast, expected population stagnation and an ageing population. The aim is therefore to create an analysis which foresees an increase in the dependency rate, the tertiarisation of industry and the need to increase the rate of renewable energies. Also, it specified that, in view of this situation, **more investment in R&D** will be needed.

Against this background, there is also the challenge of climate change, which will exacerbate the impacts on the territory, the population, the natural environment and economic activities, especially in terms of rising sea levels, changes in rainfall patterns, temperatures, floods and heat waves, all of which will require a less vulnerable and more resilient territory that is able to cope with these situations. The SPGs set out a number of elements that define the territorial model:

- Physical environment and **green infrastructure**: this covers all of the undevelopable land in the Autonomous Community of the Basque Country, which accounts for 93% of the region. Green infrastructure is configured as a tool to recompose territorial fragmentation and reinforce ecosystem services.

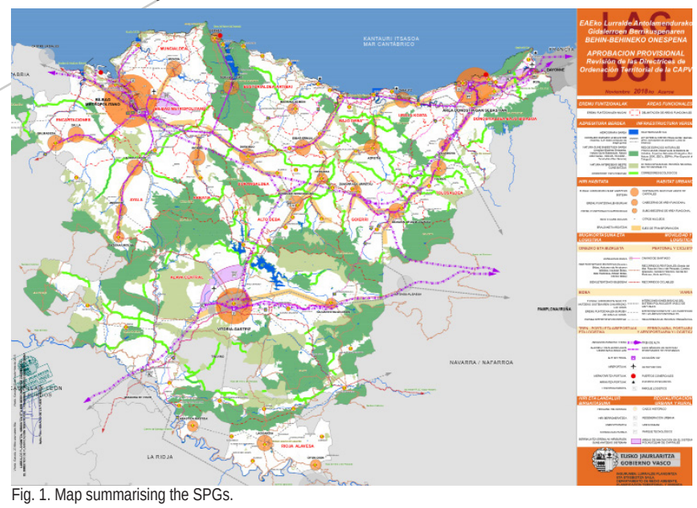


Fig. 1. Map summarising the SPGs.

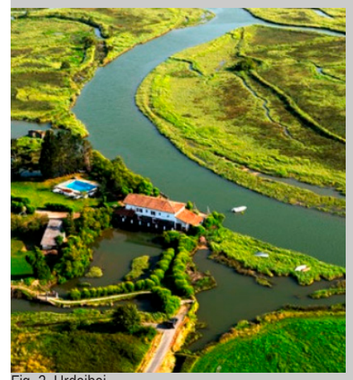


Fig. 2. Urdaibai.

Fig. 3. Territorial model with the old SPGs.

Fig. 4. Population density.

Fig. 5.Green infrastructure.

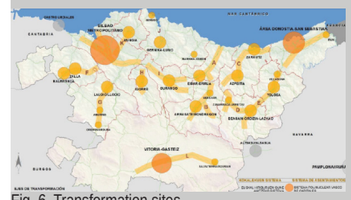


Fig. 6. Transformation sites.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

- The rural habitat: the aim is to preserve and promote the primary sector and improve public services so that the population's standard of living is on a par with that of the urban environment.

- The urban habitat: a firm commitment has been made to **urban regeneration,** with the "Urban Growth Perimeter" tool to limit urban sprawl and encourage better use of urban land.

- Landscape, cultural and natural heritage, tourism resources: the new vision of landscape as a tool for an integrated view of human action on the territory. Heritage (both cultural and natural) is a resource to be preserved. However, tourism must not have an impact that would upset the balance of the territory in which it takes place.

- Sustainable management of resources: this covers flooding, water supply and sanitation, energy efficiency and renewable energies, and the circular economy, in order to minimise external dependence and make the most of internal resources.

- Mobility and logistics: mobility as an integrated system beyond the material support; a model is proposed that ensures intermodality, promotes public transport, pedestrian and cycling mobility. As for logistics, an integrated freight transport system is proposed.

- **Cross-cutting issues and governance**: universal accessibility, gender perspective, climate change, health, Basque and territorial interrelationship. As far as governance is concerned, fostering a "culture of participation", taking indicators to support future decision-making, setting criteria for coordination between partial and sectoral territorial plans, and achieving administrative integration to avoid delays in processing plans.

RESULTS

Planning in the Basque Country that uses the Spatial Development Guidelines as a framework will implement the objectives and strategies proposed in the Guidelines. Since the SPGs were **finally approved**, the Laguardia Partial Spatial Plan (Rioja Alavesa) has been revised and will start in 2020, and the Partial Spatial Plan (PSP) for the Functional Area of Tolosa has been drawn up. Similarly, amendments have been made to existing SPGs, such as the SPG for the Partial Spatial Plan for Donostia-San Sebastián relating to determinations regarding landscape, among others. Likewise, sectoral spatial plans, general plans and other planning documents that will be drawn up in the future will implement the spatial guidelines.

PROCEDURE

In 2006, an internal process to revise the SPGs began and, in October 2010, the Governing Board decided to initiate the procedure for making non-substantial amendments to the SPGs, which paved the way for the presentation of the "Euskal Hiria Net, a new territorial strategy. Amendments to the SPGs as a result of their revision" proposal in February 2012. The non-substantial nature of the amendments was based on the fact that the proposal did not entail an alteration of the existing spatial model and that it considered it to be valid. This procedure for the non-substantial amendment of the SPGs followed its course, culminating in a public hearing and a public exhibition.

With the start of the Tenth Legislature and the approval of the new government programme, the Basque Government set out to undertake an in-depth process of revising the Spatial Planning Guidelines with a **comprehensive participatory approach** from the beginning to the end of the process. Among all the issues to be transferred from the non-substantial amendment procedure to the new SPG revision process, there was one that required special treatment: residential quantification. There was a clear **need to adapt** the residential quantification criteria in the existing SPGs and PSPs to the principles of sustainability and rational land use as soon as possible.

On July 27, 2015, the Governing Board of the Basque Government agreed to initiate the procedure to revise the Spatial Planning Guidelines for the Basque Country, approved by Decree 28/1997, of February 11. As a result, almost twenty years after they were approved, a process to revise the Guidelines has begun that will capitalise on the lessons learned from the experience acquired, respond to new challenges in spatial planning and, fundamentally, be built on the basis of a broad participatory process, involving both the various public institutions and the socio-economic and political actors and the general public. After initial approval in February 2018, the document was submitted for public consultation, provisional approval in November 2018, and final approval in July 2019.

REGULATORY FRAMEWORK

The bases of the new spatial strategy are in line with the **territorial challenge**s identified in the "2030 Agenda for Sustainable Development" approved by the United Nations General Assembly, in the 17 Sustainable Development Goals (SDGs) and in the "New Urban Agenda (HABITAT III)" approved in Quito, as well as in the "Territorial Agenda of the European Union 2020" and the "Pact of Amsterdam", mapping out a territory or spatial planning policy aimed at being a sustainable, inclusive, vibrant, intelligent, balanced, interrelated and participatory spatial strategy.

The legal support is provided by Law 4/1990 of May 31, on Spatial Planning in the Basque Country, which defined and implemented the different spatial planning concepts in 1990, which have been developed and perfected since the final approval of the Spatial Planning Guidelines in 1997, which are covered by the revision of the new 2019 SPGs.

ASSESSMENT

LESSONS LEARNED

It should be welcomed that the new SPGs are self-critical of the weaknesses identified so far. **New standards**, criteria and principles have been introduced in the SPGs for the coming decades. Consequently, the economic crisis joins the environmental crisis, the need for a sustainable model within the paradigm of the circular economy, necessary limits to the urban, economic, institutional and infrastructural spheres, gender and territorial equality, accessibility and correct management of the territory with respect to groups with other abilities, etc.

GOVERNANCE AND TRANSFERABILITY

Citizen participation from the start of the procedure was key to preparing the SPGs.

SUSTAINABILITY

Alongside the network structure, the **quality of the territorial elements** is the other key factor for the future. Natural, forest, agricultural, coastal and urban landscapes that express conditions of sustainability and quality of life make up a variety of environments that are decisive in terms of the attractiveness of the territory.

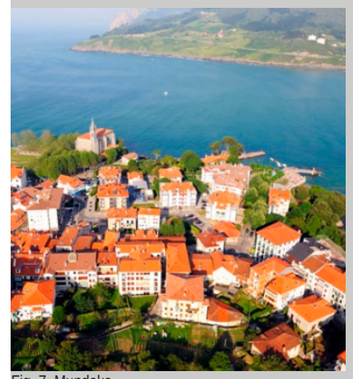


Fig. 7. Mundaka.

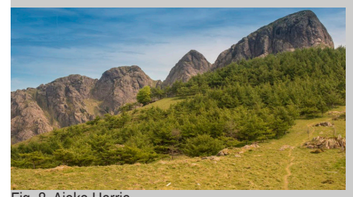


Fig. 8. Aiako Harria.

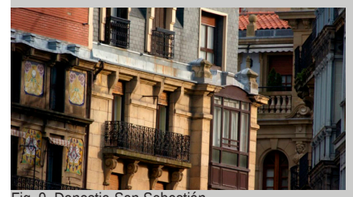


Fig. 9. Donostia-San Sebastián.


Fig. 10. Laguardia.


Fig. 11. Citizen participation event.

DATA

LOCATION
Extremadura.

ACTORS
· Regional Government of Extremadura.
· Assembly of Extremadura.
· Council of State.

DATES
· November 2017: Participatory round tables on the preliminary draft of the law.
· November 29, 2018: Approval of the Bill in Plenary Session No. 88 (PLEY-20).
· June 27, 2019: Entry into force of the Law on Spatial Planning and Sustainable Urban Development in Extremadura (LOTUS).

AREA OF ACTION
Extremadura, with a surface area of approximately 41,633 km^2.

SOURCES
Territorial Information System of Extremadura:
http://sitex.gobex.es/SITEX/pages/lotus

PHASE
Implemented.

SUMMARY

On December 27, 2018, the announced reform of Law 15/2001, of December 14, on Land and Spatial Planning in Extremadura (LSOTEX by its Spanish acronym) was published in Official Journal of Extremadura no. 250, which, after several amendments, was ineffective in responding to the problems brought to light by the economic and financial crisis of recent years and difficult to apply in a region with a very low population density, as evidenced by the data on the execution of urban development plans in accordance with the aforementioned regulation, with the new Law 11/2018, of December 21, on sustainable land and urban development in Extremadura (LOTUS by its Spanish acronym) coming into force.

This new Spatial and Urban Planning Law, which is being implemented in the context of globalised policies, aims to help Extremadura move towards **more sustainable** cities as its main goal. Consequently, it refers to inspirational criteria aligned with the 2030 Sustainable Development Agenda adopted by the UN General Assembly in 2015, and with the rest of the international goals.

It is a law that seeks a **balance** between rural and urban aspects, the green and circular economies and sustainable development in order to achieve an updated, flexible and simplified regulatory and planning framework that improves management, ensures citizen participation and transparency and fosters multilevel governance.

The LOTUS insists on the inclusion of cross-cutting criteria to promote urban **regeneration** and renovation, favouring actions that enhance the value of the built heritage and the renovation of areas with vacant buildings as opposed to new development processes.

The Law was promoted by the Regional Government of Extremadura and approved by both the Assembly of Extremadura and the Council of State and has had the collaboration of various federations and technical offices to offer different views when drafting the law.

OVERVIEW

OBJETIVES

The objectives on which any spatial and urban planning action must be based, and which the LOTUS aims to achieve, are as follows:

- The sustainable social, environmental and economic development of the municipalities of Extremadura, with the ultimate aim of maintaining and improving the quality of life of their inhabitants.

- The rational, balanced development of uses and activities in the territory, ensuring diversity and maximum use of the land as a non-renewable natural resource, as well as the protection of the environment and cultural heritage.

- The social cohesion of Extremadura, taking into account the predominance of the rural world, the historical conditions of its socio-economic development and its low population.

- **Equal opportunities** for men and women, without any discrimination against people with disabilities or for any personal or social reason or circumstance being able to prevail from a spatial planning point of view.

- Ensuring that spatial and urban planning is carried out in accordance with the needs of society.

- Preventing land speculation and ensuring the availability of land for urban development uses.

BACKGROUND

The current regional legislation in force (until 2019) –Law 15/2001, of December 14, on Land and Spatial Planning in Extremadura– posed not only a problem due to the context of the **economic crisis**, but also a structural problem in terms of addressing Extremadura's territorial reality of dispersed, sparsely populated settlements, in which rural areas make up the majority of the territory.

The new law aims to integrate urban planning into the broader framework of spatial planning and to modernise the regional legal framework by adapting its content to the needs of Extremadura and to the new **social and economic realities**.

DESCRIPTION

The purpose of this law is the spatial and urban planning of land for its rational use, in accordance with its social function, in the Autonomous Community of Extremadura. The name of the law is already a declaration of intent.

Its own nomenclature, Sustainable Spatial and Urban Planning in Extremadura, clearly shows that it starts from the larger element, the fabric on which our population centres are defined, the spatial organisation and structuring, until it reaches the smaller but no less important element, urban development. The Law not only treats land as a driving force of our economy, as a value, but also recognises its characteristics of sustainability, giving land, subsoil, forest cover and even sky the protection they need. Consequently, the Law aims to fundamentally protect the way of life of the people of Extremadura, who have traditionally lived in harmony and balance with their environment, taking care of the necessary link between people and the land they inhabit.

Moreover, the law also aims to simplify management, thinking primarily about the smaller municipalities, which account for 70% of the territory.

The **guidelines** addressed by the regulatory text are citizen participation, inclusive, sustainable urban planning, sustainable mobility, the green and circular economies, harmony with environmental procedures, coordination of administrations, municipal autonomy, competition, transparency and electronic processing.

The Law on Sustainable Spatial and Urban Planning in Extremadura is structured into eight headings and, in turn, these are organised into two main areas, that of spatial planning,

Fig. 1. Book of participation.

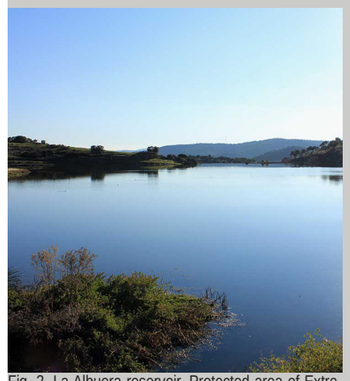


Fig. 2. La Albuera reservoir. Protected area of Extremadura.

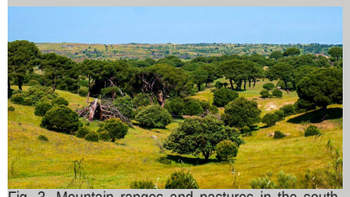


Fig. 3. Mountain ranges and pastures in the south. Ecological corridor in mountain areas.


Fig. 4. El Capricho de Cotrina. Historic sites.


Fig. 5. Alanage Castle. World Heritage Sites.


Fig. 6. Vegas del Guadiana Corridor. Ecological corridor in mountain areas.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

which covers all the supra-municipal planning instruments developed in Articles 13 to 43 of the Law, and urban planning instruments, which covers all the planning instruments at a municipal level, developed in Articles 44 to 56.

RESULTS

As of today, the Law has been in force since December 2018. Since then, the Villuerca-Ibores-Jara Spatial Plan, the Valle del Jerte Spatial Plan and the La Serena Spatial Plan have been approved or are in the process of being drafted.

For Extremadura, the drafting of this type of plan means that the municipalities in one or more communities of municipalities are asked to consider the future they want for their territory. It is necessary to go beyond the strictly municipal view that they tend to have, and to define and shape a **spatial model** for the future of their territory in the Plan, in coordination and consensus with the rest of the institutions that have competences over that territory, and the different social actors and citizens.

PROCEDURE

After identifying both **economic and structural problems** arising from the economic crisis, it was decided to revise the law in force at the time, Law 15/2001 of December 14, with a view to drafting a new law.

In November 2017, participatory round tables began with the aim of preparing and drafting the bill. In total, four participatory round tables were convened: “Urban planning and management”, “Spatial planning”, “Urban planning licences and discipline” and “Cross-cutting urban planning” (on November 10, 14, 15 and 17, respectively). Following these meetings, a Preliminary Draft was produced which was submitted for the opinion of the Council of State (Document CE-D-2018-343) on July 12, 2018.

The Bill was published in DOAE (Official Journal of the Assembly of Extremadura) No. 733, on July 26, 2018, thereby opening the period for submitting amendments from that date until September 3, 2018. The debate on the opinion of the Committee on the Environment and Rural Affairs, Agricultural Policies, Territory, Local Administration and the Interior, Town Planning and Transport took place on November 23, 2018, where the text submitted to the vote of the Plenary, which was the same as the original text of the Draft Bill, was finally approved in Plenary Session No. 88, on November 29, 2018.

Thereafter, it was published in DOE (Official Gazette of Extremadura) No. 250 on December 27, 2018 and in BOE (Official State Gazette) No. 35, on February 9, 2019. Finally, the Law on Spatial Planning and Sustainable Urban Development is due to enter into force on June 27, 2019.

REGULATORY FRAMEWORK

The legal and material scope of this Law, and the regulatory framework that has emanated from state legislation, is as follows:

- Legislative Royal Decree 7/2015, of October 30, approving the Revised Text of the Law on Land and Urban Rehabilitation.
- Law 21/2013 of December 9, 2013, on Environmental Assessment.
- Law 19/2013 of December 9 on Transparency, Access to Public Information and Good Governance.
- Law 39/2015 of October 1, on Common Administrative Procedure of Public Administrations.
- Law 40/2015, of October 1, on the Legal System governing the Public Sector.

ASSESSMENT

LESSONS LEARNED

Among the lessons learned is the role of regulation as an indispensable instrument for sustainable, integrated, coordinated urban and territorial policies. It is also worth highlighting its role in making planning management and its application throughout the territory **more agile and flexible** in order to contribute, from a local level, to achieving global goals.

This Law was presented as the Urban Agenda for the Autonomous Community of Extremadura and raised many of the objectives and inspiring principles of the Spanish Urban Agenda and other international agreements to the status of legislation.

GOVERNANCE AND TRANSFERABILITY

In order to carry out and draft this plan, human resources support came from institutions, federations and technical teams such as the Extremadura Technical Accessibility Office (OTAEX by its Spanish acronym), the Extremadura Academy of Public Safety (ASPEX by its Spanish acronym), the Extremadura Women’s Institute (IMEX by its Spanish acronym), the Extremadura Regional Business Confederation (CREEX by its Spanish acronym) and the Extremadura Federation of Municipalities and Provinces (FEMPEX by its Spanish acronym). They all took part in the participatory round tables convened to draft the Bill.

It is a law that introduces innovative, inspiring concepts and elements into the more traditional regulations, and could be **transferred** to other regional regulations as tools for solving common problems.

SUSTAINABILITY

The Law sets out specific criteria for spatial and urban planning that are aimed at meeting the challenges of social, environmental and economic sustainability in the Autonomous Community. Sustainability in this law is based on aligning this Autonomous Community with the 2020 climate change targets, and being a **model region** in terms of having a positive ecological footprint.

In order to comply with the provisions of this law regarding territorial sustainability, the environment and social cohesion, planning instruments must observe the following criteria, among others:

- Urban growth will prioritise the quality of incomplete urban fabrics and encourage urban regeneration and renovation over the processes of creating new urban developments and extending urban centres.
- They will establish the means to prevent, offset or mitigate negative impacts due to light, air, noise and waste pollution.
- The recovery of natural watercourses and their protection areas.
- The treatment of urban waste water.
- The integration of **valuable natural landscape elements** into the urban landscape.
- Promoting the quality and functionality of public spaces and facilities, so that priority is given to the criteria of proximity to users and access by means of sustainable mobility when establishing their location.
- The integration of compatible uses in the urban environment with housing will be encouraged in order to achieve diverse uses and greater social cohesion and integration where universal accessibility measures are generalised.
- Where noise easement areas of major transport infrastructure are occupied, screens made of living plant material should be provided to reduce noise outside inhabited areas to below the immission limits set.

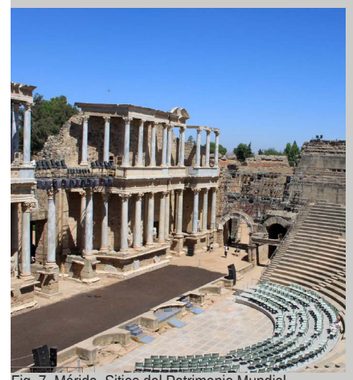


Fig. 7. Mérida. Sitios del Patrimonio Mundial.

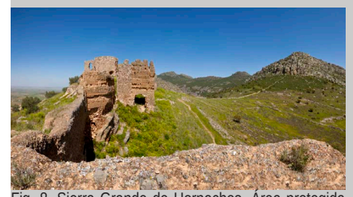


Fig. 8. Sierra Grande de Hornachos. Área protegida de Extremadura.

Fig. 9. Hoyos del Espino. Conjuntos históricos.

Fig. 10. Viaducto de Guadalupe. Sitios del Patrimonio Mundial.

Fig. 11. Yacimiento Protohistórico de La Mata. Conjuntos históricos y área protegida.

DATA

LOCATION
City of Murcia, Murcia.

ACTORS
· Murcia City Council.
· University of Murcia.
· Neighbourhood associations, commercial associations and other groups.

DATES
· April 2017: Urban DNA starts work in the Santa Eulalia neighbourhood.
· June 2018: Urban DNA starts work in the El Carmen and La Paz neighbourhoods.

AREA OF ACTION
Santa Eulalia, El Carmen anad La Paz neighbourhoods.

SOURCES
Murcia Urban DNA:
https://adnmurcia.es/

RECOGNITION
2017: URBACT Good Practices Label.

PHASE
In the implementation phase

SUMMARY

Urban DNA is an initiative carried out by Murcia City Council with the aim of **renewing and revitalising** social life in the city's neighbourhoods. This programme proposes an alternative model of action to improve Murcian neighbourhoods by means of various actions.

Consequently, Urban DNA will turn neighbourhoods into the basic unit of action in which to promote their own identity, foster social cohesion and boost economic activity. Each neighbourhood is thus seen as a setting where history, ecology, art, health, tourism and industry are dealt with in a cross-cutting manner, while always taking the existing reality into account in order to boost the life of the city.

In 2017, in order to implement this intervention model and test its effectiveness, the Santa Eulalia neighbourhood was selected as the first place it would be applied.

The historical, social and cultural importance of this neighbourhood in the city of Murcia was the ideal context in which to test this proposal as a pilot project. Since then, the Urban DNA project has been implemented in the Murcian neighbourhood of El Carmen.

OVERVIEW

OBJETIVES

As explained in the document presenting the project, the aim of the Murcia City Council is to "**shake up the neighbourhoods** of Murcia and their residents. Revitalise the city's neighbourhoods in order to breathe new life into them and enhance their personality: their DNA".

Therefore, it could be said that the main objective was to implement small and medium-sized urban actions, based on citizen participation, in order to improve the life of neighbourhoods and the well-being of their residents. The various secondary objectives that make it possible to achieve the main objective include the following:

- Ensure active participation in the governance and management of the neighbourhoods in which the action was carried out on the basis of residents sharing a vision to improve the quality of life in their neighbourhood.

- Facilitate citizen participation and increase trust of residents of the neighbourhoods where the project was implemented, thereby creating added value for the neighbourhood action.

- Ensure **gender equality** and reduce social, cultural and economic inequalities.

BACKGROUND

This new project, based around an innovative, novel intervention model, arose from the need, identified in the city's strategy, to revitalise life in the city's neighbourhoods and achieve a stronger, more interrelated society.

The Santa Eulalia neighbourhood, the one chosen to test this project, was ideal for several reasons. Firstly, it is a neighbourhood with one of the strongest identities in the whole municipality. Because it is one of the oldest in Murcia, it is historically and culturally very complex. At the same time, it is one of the most modern districts where innovation and tradition coexist. Older people and young university students live side by side and it is an area where some of the most modern shops can be found.

Moreover, from a historical point of view, it is one of the neighbourhoods that best symbolises the city's three cultures, because it was the site of the Synagogue, one of the most unique churches in Murcia (Santa Eulalia) and the Museum of the Arab Wall. Therefore, it has a very interesting social and commercial structure.

DESCRIPTION

Murcia City Council and the University of Murcia worked together to develop a neighbourhood intervention model based on three principles: creating an integrated, participatory, high-impact model. **Integrated** because they took as many factors that could determine the character of each Murcian neighbourhood as possible into account.

These included principles of urban sustainability, the smart city approach, the structure of the existing public spaces, the way in which the residents identified with their neighbourhood, their culture and the unique image of each neighbourhood, as well as reviewing historical heritage, mobility and carrying out a social analysis that might explain some of the neighbourhood's own structure.

Participatory because participation was the backbone of the model. It proved to be a key element of the project as participation was not only seen as a means, but also as an end. As a means because every action that was carried out was subject to citizen participation.

As an end, because this process was aimed at creating new social structures in the neighbourhood and **promoting the pre-existing ones.** Consequently, this model acted as a catalyst for creating new social activity in the neighbourhoods.

And of great impact because the actions needed to have a great impact on the life in each neighbourhood in order to have a real effect on the city of Murcia. To achieve this impact, it was necessary to define the time frame, scope and objectives of the actions. The Santa Eulalia neighbourhood was chosen as a pilot project for this planning.

The purpose of all this was to work with **residents themselves**, so that they themselves could develop the proposals and solutions required by the neighbourhood through their ideas and needs.

Fig. 1 The neighbourhood of Santa Eulalia in Murcia, showing the actions defined, which acted as a pilot test for carrying out Urban DNA.

Fig. 2. Meeting between neighbours on one of Urban DNA's actions.

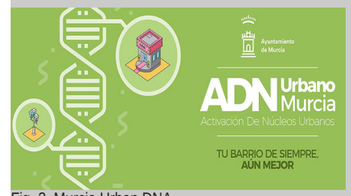


Fig. 3. Murcia Urban DNA.

Fig. 4. Urban landmark in the Santa Eulalia neighbourhood promoted by Urban DNA.

Fig. 5. Urban DNA proposal for action.

Fig. 6. Photograph of the church of Santa Eulalia

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.1 Strive for an up-to-date, flexible and simplified planning and regulatory framework that also improves management.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

PROCEDURE

On May 4, 2020, Murcia declared an emergency for carrying out actions. **4 phases** were defined for carrying out the Urban DNA project:

Phase 1: identification. After compiling documentation, carrying out a historical analysis of the neighbourhood, defining the area of action and carrying out a SWOT analysis, a preliminary report was produced setting out the specific objectives to be achieved in each neighbourhood. This document was then submitted to the neighbourhood participation process to amend and incorporate possible contributions from residents. This was identified as a key step, as it defines the actions that will finally be carried out in the neighbourhood.

Phase 2: mobilisation. Once the actions had been defined, the neighbourhood groups were mobilised, and those that contribute to the life of the neighbourhood were identified. The City Council supported their mobilisation through consultancy. Once the actions were clear and the actors in the neighbourhood had been mobilised, sheets were drawn up with specific actions to be carried out so that they could be planned and implemented.

Phase 3: “shaking up”. This phase is when specific measures and actions were implemented. Special emphasis was placed on encouraging the participation of residents and meetings between the various social groups in the neighbourhood.

Phase 4: future outlook. Murcia City Council handed over the responsibility and task of maintaining and developing the projects to the residents of the neighbourhood (groups and associations). To this end, it was important to ensure that the neighbourhood meeting points used in the previous phases did not disappear. Consequently, routines and pretexts needed to be set up in order to maintain the relationship between neighbours and carry it forward into the future.

An area of almost 190,000 square metres was defined in the specific case of Santa Eulalia. Although this neighbourhood covers an area of 80,000 square metres in administrative terms, it was decided to expand the area of action, incorporating adjacent areas of the neighbourhoods of San Lorenzo and San Juan. A number of activities were carried out to get closer to the residents of Santa Eulalia, to find out the needs of the neighbourhood and to reach a consensus on what needed to be improved.

As a result, a **number of participatory** meetings, children’s activities, neighbourhood mappings and meetings with university students, families and older people were held. Meetings and colloquiums (the so-called ‘Agoras’ were also held in the Plaza de Santa Eulalia on various topics: urban quality, smart parks and neighbourhoods, tourism, commerce and hospitality, social welfare and culture. As a result of this process, more than 3,000 contributions were submitted on changes to the neighbourhood to enhance its DNA. It concluded with hundreds of actions taken during the “shaking up” phase. The sum of all of these actions succeeded in making Santa Eulalia a more complex neighbourhood with stronger **social relations.** This is what ensured the success of this initiative, among other things, and what made it possible to transfer this experience to other neighbourhoods with greater certainty.

RESULTS

Urban DNA carried out a pilot test in the neighbourhood of El Carmen. To this end, it set out specific strategies to encourage the involvement of the neighbourhood’s residents. The pilot project resulted in the definition of four phases: participation, social mobilisation, urban shake-up and future outlook. Throughout 2019, Urban DNA managed to carry out more than 25 actions in the El Carmen neighbourhood, ranging from improving accessibility to creating artistic murals, improving children’s areas and installing trees and landscaping. The results were so successful that it was decided to replicate the method in other neighbourhoods in the city of Murcia.

ASSESSMENT

LESSONS LEARNED

Urban DNA is an alternative model for action in neighbourhoods that opens the door to other ways of transforming urban realities. If carried out properly, this project will show the transformative power of **individuals** in the city.

Tackling neighbourhood concerns and initiatives reveals tangible and intangible urban manifestations that promote identity differences in each neighbourhood, which in turn foster social cohesion, thereby driving and stimulating a new form of economic recovery.

The main beneficiaries of the project were the residents themselves, who became the real driving force behind the transformation of the neighbourhood. Through their participation in the different phases, they managed to design the neighbourhood in which they wanted to live, creating new spaces for coexistence, parks and gardens more adapted to their needs, a cleaner, more beautiful neighbourhood, and a safer neighbourhood.

GOVERNANCE AND TRANSFERABILITY

The Urban DNA project set out a model for action in neighbourhoods based on a methodology of spatial observation that applied tools at different stages to identify and apply the knowledge generated, based on a constantly evolving spatial design that could be replicated in many different contexts and in which citizen participation is a necessary cross-cutting element in each of its phases.

After the feasibility of the project was demonstrated in the Santa Eulalia neighbourhood, several other neighbourhoods and regions tried to replicate the initiative. Conecta DNA, developed jointly with Municipal Councils to promote the growth of the districts by creating a sense of belonging.

The Urban DNA initiative came about in the framework of a **European project funded** by ERDF 2014-2020, which focused on how to involve citizens in managing the public affairs that affected their daily lives through social tools and digital platforms. An interdisciplinary team made up of architects, journalists, political scientists, experts in design, communication, European programmes, etc. was involved in implementing it.

SUSTAINABILITY

The Urban DNA initiative is sustainable in many ways. In a financial sense, this is mainly because implementing it does not require additional economic investment, but is subject to the coordination of both existing funding and the actions to be carried out by the different municipal services and publicly-owned companies. Moreover, the implementation of this methodology is not only able to bring about a change and improvement in technical management, but may also be able to promote a change in the **economic planning** of municipal spending.

Consequently, as a result of the process, Murcia City Council has created a new way of planning by accounting centre by integrated project, and not only by municipal service. But perhaps what is more important as far as sustainability is concerned is that, due to its nature, the **durability** of this action is assured over time without the need for constant institutional maintenance. The sustainability of this action is assured by relying on the neighbourhood and the ties and relationships that were established, and by ensuring the continuity of the actions.

Fig. 7. Proposal for the urban regeneration of a street in the Santa Eulalia neighbourhood.

Fig. 8. Participation area set up by Murcia City Urban DNA.

Fig. 9. Proposal for urban regeneration in Santa Eulalia.

Fig. 10. Photograph of a street market. Another of the Urban DNA proposals.

Fig. 11. Photograph of the Santa Eulalia allotment with residents and municipal workers.

DATA

LOCATION
Alto Tajo Community of Municipalities, Castile & León.

ACTORS
· Alto Tajo Community of Municipalities, Town Councils of: Arbeteta, Armallones, El Recuenco, Peñalén, Peralveche, Poveda de la Sierra, Villanueva de Alcorón, and Zaorejas.
· Guadalajara Provincial Council and the Regional Government of Castilla-La Mancha.
· Associations related to the community of municipalities, from cultural associations to pensioners', youth and tourist associations.
· Support and coordination of Repueblo.

DATES
· 2020: Start of the initiative.

AREA OF ACTION
Alto Tajo Community of Municipalities.

SOURCES
Alto Tajo Community of Municipalities, Urban Agenda
https://pueblosaltotajo.es/agenda-urbana/

PHASE
In progress.

SUMMARY

The Alto Tajo Urban Agenda is a **Horizon 2030** action plan that contains specific actions to improve the economic, social and environmental situation of the Alto Tajo Community of Municipalities, made up of 8 town councils and 10 towns.

This Urban Agenda is a specific example of partnerships and governance in rural Spain. The purpose of the Agenda is to redirect the future of the region in order to anticipate and adapt to the social and cultural changes that will occur in the future, rethinking the future of the region and its strategic positioning in its environment.

It is committed to citizen and private initiative leading innovation and the creation of added value, in partnership with actors such as public administrations. The aim is to give territories a green, innovative future by changing the **development** narrative and strategy.

OVERVIEW

OBJETIVES

The goal of this Agenda is to achieve concrete results to improve the lives of the inhabitants of Alto Tajo. The aim is to draw up actions that will help to achieve the following four points:

- Retain the young population.
- Create a favourable ecosystem for business start-ups.
- Attract new settlers.
- Care for the privileged natural setting in which it is located.

The Community of Municipalities was created with the aim of organising and providing services to the municipalities that make it up and their districts. Responsibility for achieving concrete actions falls on all actors through an innovative, cutting-edge model of **co-governance.**

BACKGROUND

The Alto Tajo is a predominantly rural and sparsely populated territory, with one of the lowest population densities in Europe, 1.66 inhabitants per km2, which is a hindrance to growth and development.

Although it is not far from Madrid, its location away from major infrastructures creates a competitive disadvantage compared to other territories.

It is a region with very little business and entrepreneurial initiative, which is a barrier to dynamism and attraction. 35% of young people between the ages of 18 and 30 who live outside the Community of Municipalities would return to Alto Tajo if they had a job or were able to telework.

More than 70% of the businesses that fail in the territory do so due to a lack of experience and training of the entrepreneurs. More than 60% of the income of the municipalities comes from hunting and hunting reserves.

The 8 municipalities, which have their own characteristics, share common patterns of low population density, geographic isolation, lack of a business fabric and limited variety of sources of income.

DESCRIPTION

The Upper Tagus Urban Agenda is the result of a **participatory process** involving various stakeholders in the territory, including municipal corporations, different associations, citizens and other administrations, such as Guadalajara Provincial Council, the Regional Government of Castilla-La Mancha and the Ministry of Transport, Mobility and the Urban Agenda.

The assessment is approached from an analysis and strategic planning perspective as a static analysis and the plan of action is approached from a dynamic planning perspective.

The plan of action aims to provide concrete solutions, called specific actions, which have been grouped into four main **strategic lines.** Each of them is in line with a number of the strategic goals of the Spanish Urban Agenda:

- **New governance**: Improved regional governance, with other administrations, with private entities and improved citizen participation. This line is carried out through 8 actions, which are as follows:

· Definition of new governance within the Community of Municipalities.
· Creation of an internal communication and information exchange.
· Plan to link up with companies for training the unemployed.
· Drafting of a joint Urban Development Plan for the Community of Municipalities.
· Development of a process for selecting private managers of public businesses.
· Promotion of the creation of a joint youth association in the Community of Municipalities.
· Plan to diversify municipal income away from dependence on hunting.
· Increased participation and particular importance in the Molina de Aragón-Alto Tajo Rural Development Association.

- **Improvement in services**: Improvement in services for the inhabitants of the territory, for potential settlers and for the future entrepreneurial ecosystem. There are eight other actions in this line:

· Creation and management of a mobile recycling point for the Community of Municipalities.
· Setting up a telemedicine service for inhabitants.
· Plan to promote housing for rent and sale.
· Creation of the "Alto Tajo" sports area in Villanueva de Alcorón.
· Restoration of the public bus system connecting Guadalajara and Madrid.
· Rural E-Car Sharing Plan of the Community of Municipalities.
· Creation of a space aimed at non-dependent older people
· Creation of a Senior Cohousing project.

Fig. 1. Alto Tajo, the only Community of Municipalities in Spain to win an Urban Agenda pilot project grant.


Fig. 2. Arbeteta Castle.


Fig. 3. El Hundido de Armallones hiking route.


Fig. 4. Aerial photograph of the municipality of El Recuenco.


Fig. 5. Municipality of Villar de Cobeta.


Fig. 6. Aerial photograph of the municipality of Huertapelayo.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

- Creation of a new tourism identity: creation of a regenerative **tourism brand** that supports the creation of businesses, the recovery of trades and enhances the value of heritage. Thirteen actions were taken into account to this end:

1. Identify all tourism, historical and heritage assets.
2. Create a tourism narrative for the Community of Municipalities.
3. Design, develop and implement a tourism and language training plan.
4. Create co-living in the former Guardia Civil barracks in El Recuenco.
5. Restore tourist accommodation and create a tourism excellence plan.
6. Care for and restore accesses to the river currently overcrowded with tourists.
7. Create an Alto Tajo cultural route. Working group 1.
8. Exploit the ganchera tradition for wedding celebrations. Working group 2.
9. Exploitation of gastronomic tourism based on truffles. Working group 3.
10. Become a Starlight destination. Working group 4.
11. Exploit the ornithological potential of the territory. Working group 5.
12. Revive the art of glazing and masonry. Working group 6.
13. Create a “rural Erasmus” in the region for university students.

- The **ecological transition:** Development of a plan aimed at economic recovery from a 0 carbon perspective, focused on the end of mining, and moving towards renewable energies. Four actions were carried out along this line:

1 Energy self-sufficiency plan, through photovoltaic energy, for the Community of Municipalities.
2 Installation of an electric car recharging point for the Community of Municipalities.
3 Sustainable forest management plan.
4 Fair transition plan for kaolin mining.

Practically all of the municipalities’ individual challenges will be tackled in a much more efficient, effective, sustainable way from the perspective of the Community of Municipalities. A review of the governance model is the key to achieving this. Generating new forms of funding, in a sustainable way and managing the territorial areas as a functional entity, without the need to create new legal or political entities, will allow Alto Tajo to obtain a strong position when dealing with demands and requests.

The Alto Tajo Community of Municipalities decided to become an example and inspiration for rural Spain, with a cutting-edge **strategic model** that is inclusive, creative and focused on the next generations. The model is aligned with the needs of current and potential inhabitants, with international agendas and a balance between growth and sustainability.

RESULTS

Drafting of the Agenda provided a great boost to the area, and its identification as a Spanish Urban Agenda pilot project encouraged the implementation of the actions proposed within the action plan, based on promoting partnerships and improving governance.

PROCEDURE

A methodology based on the Spanish Urban Agenda was created and adapted to the procedures that had been carried out for some time in relation to integration with the Alto Tajo territory. The first phase consisted of a situational analysis. This analysis led to the definition of four main strategic lines, which in turn were divided into **33 specific actions,** on which the Action Plan was based.

These specific actions were given a priority (from low to very urgent) and a cost associated with their solution. All of this works at four scales of influence: local, regional, national and European. Work is currently underway to disseminate and communicate the Agenda, its objectives and methodology.

REGULATORY FRAMEWORK

The main document that was used to draw up and implement this good practice is the Spanish Urban Agenda.

ASSESSMENT

LESSONS LEARNED

In the aftermath of the pandemic in 2020 and part of 2021, the opportunities and potential that **rural settings** can offer became clear. Building on the advantages and solutions that these environments can provide for urban citizens, this Agenda is an attempt to address the drawbacks of urban environments and turn them into new centres of life and community.

The search for a fulfilling life, surrounded by nature, as part of an active community, is the driving force for change for many people. The content of this Urban Agenda is flexible, dynamic and a catalyst for the municipalities’ own reflections and those of the other actors involved.

GOVERNANCE AND TRANSFERABILITY

RumboRural, the platform that generates positive impact projects, carried out the first “Alto Tajo Urban Agenda Tour”, from August 13 to 21, 2021, in collaboration with the Federation of Alto Tajo Associations and the Alto Tajo Community of Municipalities, with the aim of raising awareness of the Alto Tajo Urban Agenda in the different municipalities.

It was also an ideal opportunity to resolve any doubts that may have arisen among local residents about this strategic action plan with a 2030 horizon, which was chosen as a national pilot project by the Ministry.

Alto Tajo presented a **cross-cutting Urban Agenda** which is a real action plan for the next decade. It was ambitious, but real and achievable, the result of the will of everyone to turn the territory they live in into a prosperous place, that is ideal for living in and entrepreneurship. This makes this action an example for all those rural regions in Spain that have decided to fight against a future of depopulation that is gradually leading to their disappearance.

SUSTAINABILITY

The 33 actions presented in the Alto Tajo Agenda could specify and implement many of the principles of sustainable theory, be of a cross-cutting nature and be in line with the SDGs and the goals of the Spanish Urban Agenda.

The drive for new governance, aimed at improving social, economic and labour conditions in the region, was proposed in order to adapt to a new **social and environmental balance** that is more aware of the challenges facing humanity.

The improvement in services and search for a new tourism landscape were also planned, taking up the challenge of adapting the population’s activities to a new relationship between society, its environment and its own community. Bearing in mind that it is the municipalities themselves who will ultimately make the decisions, the Urban Agenda must make it possible for them to tackle present and future challenges, where the economic, social and environmental balance and its focus on the SDGs is compulsory and already included in each specific action of this Urban Agenda.

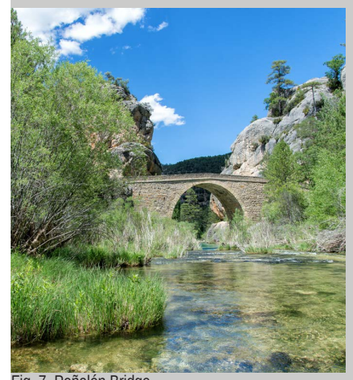


Fig. 7. Peñalén Bridge.

Fig. 8. Aerial photograph of Peralveche.

Fig. 9. Salto de Poveda viewing point.

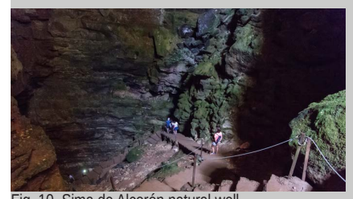


Fig. 10. Sima de Alcorón natural well.

Fig. 11. Views over the Tajo canyon from the Zaorejas viewing point.

SUMMARY

On June 21, 2020, the European Council approved the creation of the NextGenerationEU programme in response to the unprecedented crisis caused by the coronavirus. The programme aims to respond in a joint and coordinated manner to the consequences of the COVID-19 pandemic. The aim is to use these funds to make post-COVID-19 Europe greener, more digital and **more resilient** to changes and challenges in the future.

Europe sees the programme as a unique opportunity to emerge stronger from the pandemic, transform the economy and create opportunities and jobs.

In Spain, the programme is being implemented through the Recovery, Transformation and Resilience Plan, which is defined as a national project that requires the involvement of all economic and social actors, all levels of government and all public administration resources.

OVERVIEW

OBJETIVES

The objective of the Spanish Recovery, Transformation and Resilience Plan is to accelerate **economic and social recovery** after the COVID-19 crisis and to increase growth capacity in the medium and long term. Therefore, a number of structural reforms are planned, along with substantial investments, to tackle Spain's remaining challenges and to create the right conditions for these funds to be invested in the most efficient way with the greatest possible impact.

The Recovery and Resilience Mechanism (RRM) has six main strands:

1 Ecological transition.
2 Digital transformation.
3 **Smart**, sustainable, inclusive growth, incorporating elements such as economic cohesion, employment, productivity, competitiveness, research, innovation, a well-functioning internal market and strong SMEs.
4 The social and territorial cohesion of all of the peoples and territories of Europe.
5 Health, economic, social and institutional resilience, which will increase preparedness and capacity to respond to future crises.
6 Children and young people. The Regulation sets out the need for paying special attention to policies related to them, particularly education.

They are all aimed at restoring the growth potential of the Union's economies, fostering post-crisis job creation and promoting sustainable growth.

Each Member State has had to design a National Recovery and Resilience Plan to achieve these objectives, which should include the reforms and investment **projects** needed to meet these objectives, with the four aspects identified in the Annual Sustainable Growth Strategy acting as guiding principles: environmental sustainability, productivity, fairness and macroeconomic stability.

BACKGROUND

The COVID-19 outbreak that started in early 2020 changed the economic, social and budgetary outlook in the Union and globally, and requires an urgent and coordinated response at both a Union and national level to address the huge economic and social consequences for Member States, and the asymmetric effects.

Like the previous financial and economic crisis, the COVID-19 crisis showed that building strong, sustainable, resilient economies and financial and **social protection** systems, based on sound economic and social structures, can help Member States to respond more effectively in a fair and inclusive manner to shocks and to recover more quickly from such shocks.

Lack of resilience can also have negative spill-over effects due to shocks between Member States or within the Union as a whole, thereby hampering convergence and cohesion in the Union. Spending cuts in sectors such as education, culture, creative industries and healthcare may be counterproductive to a rapid recovery. The medium to long-term consequences of the COVID-19 crisis will depend primarily on how quickly Member States' economies and societies recover from the crisis, which in turn will depend on the budgetary room for manoeuvre available to Member States to take measures to mitigate the social and economic impact of the crisis, and on the resilience of their economies and social structures.

Sustainable, growth-friendly reforms and investments that tackle the structural weaknesses in the economies of the Member States and that strengthen resilience, increase productivity and lead to Member States becoming **more competitive** will therefore be essential when it comes to putting these economies back on track and reducing inequalities and divergences in the Union.

DESCRIPTION

EU Member States have had to prepare a National Recovery and Resilience Plan with an investment and reform programme in order to receive financial support under the European Recovery and Resilience Mechanism (RRM). In the case of Spain, we refer to the Recovery, Transformation and Resilience Plan (RTRP), which has been drawn up around four cross-cutting themes: ecological transition, digital transformation, territorial and social cohesion, and gender equality. With these **four cross-cutting** themes at the core, the Plan is structured around ten policy levers, which in turn are made up of 30 components or lines of action, both in terms of regulation and in terms of boosting investment. Similarly, each component will focus on a specific challenge or objective and include reforms and investments that contribute to achieving these objectives or overcoming the challenges. Intermediate goals and milestones, expected results, and number of beneficiaries need to be identified for all of these, together with detailed costs for each component, as monitoring and control indicators.

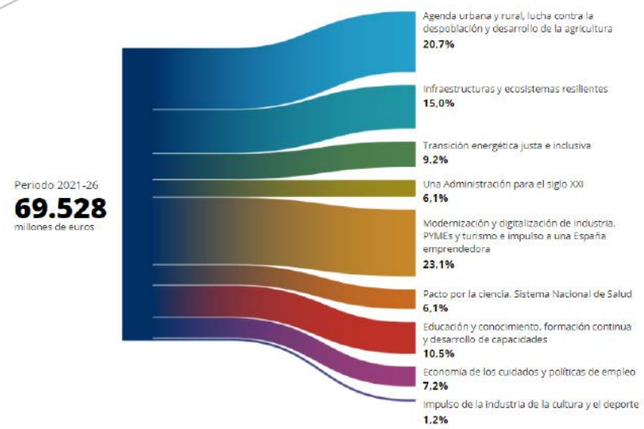


Fig. 1 2021-26 Period.

DATA

LOCATION
Spain.

ACTORS
· Public administrations and the private sector.

DATES
· February 2020 - December 2026.

AREA OF ACTION
National project.

SOURCES
Recovery, Transformation and Resilience Plan:
https://planderecuperacion.gob.es/

PHASE
In the process of implementation.

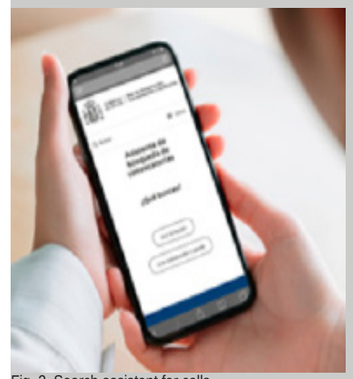


Fig. 2. Search assistant for calls.

Plan de Recuperación, Transformación y Resiliencia

Fig. 3. Logo of the Recovery, Transformation and Resilience Plan.

Financiado por la Unión Europea NextGenerationEU

Fig. 4. Funded by Next GenerationEU.

Fig. 5. Implementation report. December 2021.

Fig. 6. España puede. Recovery, Transformation and Resilience Plan.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

SG8 GUARANTEE ACCESS TO HOUSING

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

It is a clear roadmap that includes investments and a broad set of structural reforms that respond to specific recommendations made by European institutions and to the analyses carried out by administrations, social actors and civil society, gathered from sectoral conferences, social dialogue groups and expressions of interest, among other sources.

The Plan addresses the economic and social consequences of the pandemic and is aimed at speeding up the **green and digital transitions**, by contributing at least 37% of the budget to the climate target and at least 20% of the budget to digitalising the economy. Investment and reform measures are aimed at increasing the capacity for economic growth, gender equality and equal opportunities and need to propose strong measures to protect the Union's financial interests, particularly to prevent fraud, corruption, conflicts of interest and double financing.

The Commission has based the assessment of the National Recovery and Resilience Plans on transparent criteria. In particular, the contribution to effectively tackling the economic challenges identified and the recommendations made in recent years in the European Semester reports, whether they contain measures that effectively contribute to the green and digital transitions and to strengthening **growth potential**, job creation and the economic and social resilience of the Member State. All investments and reforms must respect the principle of not causing significant damage to the environment.

The RTRP also reflects the planned contribution to gender equality and equal opportunities for all and should seek to build close cooperation between the Commission and the Member States throughout the process.

RESULTS

Reforms and investments under the Mechanism should also contribute to increasing the Union's resilience and reducing its dependence by diversifying key supply chains, which will strengthen the Union's strategic **autonomy** alongside an open economy. Reforms and investments under the Mechanism should also generate added value for Europe.

PROCEDURE

The decision to approve Spain's RTRP was taken by the College of Commissioners on June 16, 2021 and was approved by the EU's Economic and Financial Affairs Council (ECOFIN) on July 13, 2021, at which point Spain began to receive funds in the form agreed with the European Commission.

The calls through which investments will be allocated will be carried out in accordance with the framework of competences, meaning that some calls will be made by ministries, others by state-owned public companies, others by the autonomous communities and others by municipalities, which will also issue calls at a municipal level.

Among those that have already been published, the call for grants for drawing up pilot **projects for local action plans** for the Spanish Urban Agenda (Order TMA/957/2021 of September 7) is particularly relevant to this research.

REGULATORY FRAMEWORK

Regulation (EU) 2021/241 of the European Parliament and of the Council of February 12, 2021 setting out the Recovery and Resilience Mechanism and all implementing European and national legislation.

ASSESSMENT

LESSONS LEARNED

As the explanatory memorandum of the Regulation itself points out, past experience has shown that investments are often drastically scaled down during crises. Nevertheless, it is essential to support investment in this particular situation in order to accelerate recovery and strengthen long-term growth potential. A well-functioning internal market and investments in green and digital technologies, in innovation and research, in particular, in a **knowledge-based** economy, in the transition to clean energy and to promote energy efficiency in housing and other key sectors of the economy are important when it comes to achieving fair, inclusive, sustainable growth, contributing to job creation and achieving climate neutrality in the EU by 2050.

In addition, a mechanism should be set up to ensure the link between the Mechanism and good economic governance, which would allow the Commission to submit a proposal to the Council to suspend all or part of the commitments or payments under the Mechanism.

GOVERNANCE AND TRANSFERABILITY

Two financial instruments have been created as part of the NextGenerationEU initiative:

1. European Resilience and Recovery Mechanism (RRM): the Mechanism provides the 27 Member States with support, through direct transfers and loans, to increase public investments and undertake reforms that contribute to economic and employment recovery and are geared towards tackling the main post-COVID economic and social challenges. €672.5 billion are earmarked to support reforms and investments undertaken by EU countries from February 2020. Through this mechanism, Spain will have access to a total of 140 billion euros between 2021 and 2026, of which around 70 billion will be in the form of transfers.

2. Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU) this is a new €47.5 billion initiative that continues and expands on the crisis response and remediation measures implemented through the Coronavirus Response Investment Initiative and the Coronavirus Response Investment Initiative Plus. These resources will be implemented through the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Fund for European Aid to the Most Deprived (FEAD).

SUSTAINABILITY

The Plan takes the **European Green Deal** into account as Europe's strategy for sustainable growth and the importance of combating climate change in line with the Union's commitments to implement the Paris Agreement and achieve the UN Sustainable Development Goals. In fact, the Mechanism should contribute to integrating climate action and environmental sustainability and to achieving the overall target of allocating 30% of Union budget expenditure to supporting climate objectives. This should represent an amount of at least 37% of the total allocation of the recovery and resilience plan based on the monitoring methodology for climate action set out in an Annex to this Regulation. The Mechanism should also finance activities that fully respect the EU's climate and environmental standards and priorities and the principle of "**do no significant harm**" as defined in Article 17 of Regulation (EU) 2020/852 of the European Parliament and of the Council.

Fig. 7. PERTE for Renewable Energy. Strategic Project.

Fig. 8. DUS 5000 Programme.

Fig. 9. MOVES III Programme.

Fig. 10. Energy renovation of buildings.

Fig. 11. AgroInnpulso.

DATA

LOCATION
Galicia and North Portugal.

ACTORS
· Eixo Atlántico and the municipalities that make it up.

DATES
· 1992: creation.
· 2014: Urban Agenda.

AREA OF ACTION
39 municipalities in the Galicia-North Portugal Euroregion.

SOURCES
Interreg Spain - Portugal:
https://www.eixoatlantico.com/es/secretaria-general/agenda-urbana

PHASE
In the process of implementation.

SUMMARY

In accordance with its Statutes, the Eixo Atlántico (Atlantic Axis) of the Northwest Iberian Peninsula is a cross-border association governed by public law, made up of 39 municipalities and local government bodies that make up the urban system of the Galicia – North Portugal Euroregion. It is defined as an inter-state **Euroregion area,** the philosophy of which follows European Union guidelines. Its territorial scope covers the regional area occupied by the municipalities and areas of influence of each of its constituent entities. It is a non-profit organisation dedicated to supporting initiatives that promote cross-border cooperation and acts as a liaison with Europe.

Among the many and varied actions and projects that the Eixo Atlántico promotes and fosters within the framework of the EU Urban Agenda, in 2014 the Eixo Atlántico started working on an Urban Agenda for the Urban System of the Euroregion, the first cross-border agenda in the EU, which was finally presented in March 2018. This Urban Agenda, which was **the first** cross-border agenda, was approached as a coordinated urban development strategy for all the cities in the Euroregion, so that they all moved forward –although each at their own pace based on their own priorities– in the same direction, creating synergies and complementary aspects to make it possible to develop the Galicia-North territory as a whole.

OVERVIEW

OBJETIVES

The main purpose of the Eixo Atlántico is the economic, social, cultural, technological and scientific development of the cities and regions that make it up. It is a cross-border association made up of the main cities and entities in Galicia and the northern region of Portugal, the aim of which is to promote economic, social and cultural cohesion, mainly by structuring a **common territory** and linking it to Europe.

On March 15, 2018, the Urban Agenda Action Plan for the towns and cities in the Eixo Atlántico was presented as one of the actions based on cooperation and improved governance that they had been carrying out. This Action Plan was devised as a reference framework with valid instruments for fulfilling the objectives defined in it and, without being binding, it sought to guide public authorities and civil society in their decision-making. Its overall objectives were:

- To achieve polycentric, balanced territorial development. To this end, it proposed tackling the growing disparity between the coast and the interior area of the Euroregion, from a polycentric perspective, taking small and medium-sized towns and cities into account.

- To ensure global competitiveness based on a strong local economy. The opportunities of globalisation need to be seized by consolidating strong foundations of endogenous development by identifying the best strategy for smart specialisation.

- To promote low-carbon urban ecosystems that minimise the consumption of natural resources. The sustainability of growth and urban well-being depends on the efficient use of natural resources, and local production and consumption.

- To promote inclusive, tolerant, democratic urban communities. A balance needs to be struck between defending one's own identity and multicultural openness to universal values. In addition, a sense of community is key to overcoming problems arising from generational, cultural and economic differences.

- To define city model(s) for the coming decades. The relationship between **urban centres** and their environment, the organisation, structure and functioning of local administrations, their competences and the financial resources required, and their brand image need to be rethought.

BACKGROUND

The Galicia-North Portugal Euroregion is the most dynamic and stable Euroregion in Europe, which contributes to it functioning well as the third urban area in the Iberian Peninsula, but its development as a Euroregion poses a number of problems and difficulties, which we want to tackle through collaboration, by seeking synergies and at a Euroregional level. These include problems of mobility, such as shortcomings in the **rail network** and coordination between ports and airports, or difficulties in the field of industrial policy, such as asymmetric productive land use. All of these issues were part of the Urban Agenda debate, as a result of which the Eixo Atlántico proposed guidelines for coordinated operations for developing the Euroregion over the next 20 years.

DESCRIPTION

This Euroregional area is made up of the following towns, **cities and entities**: A Coruña; Amarante; Barcelos; Braga; Bragança; Carballo; Culleredo; Lugo Provincial Council; Ourense Provincial Council; Ferrol; Gondomar; Guimarães; Lalín; Lugo; Macedo de Cavaleiros; Maia; Matosinhos; Mirandela; Monforte de Lemos; Narón; O Barco de Valdeorras; O Carballiño; Ourense; Peso da Régua; Pontevedra; Ponteareas; Porto; Póvoa de Varzim; Ribeira; Santa Maria da Feira; Santiago de Compostela; Sarria; Valongo; Viana do Castelo; Vila Nova de Famalicão; Vila Nova de Gaia;Vila Real; Vilagarcía de Arousa and Vigo

These towns, cities and entities are aware of the real causes of their problems and aim to be the real drivers of development in the regional area in which they are located, which will have certain similar socio-economic and cultural realities. In this context, the Urban Agenda was structured as an Urban System in the Euroregion and approached as a coordinated urban development strategy for all the cities in the Euroregion, so that they all moved forward –although each at their own pace based on their own priorities– in the same direction, creating synergies and complementary aspects to make it possible to develop the Galicia-North territory as a whole.

The Urban Agenda Action Plan was structured around **four strategic priorities** that reflect and differentiate the five main themes set out in the Urban Agenda:

1. Organised urban system: the new territory; (1) Internal territorial cohesion in the Euroregion; (2) Functional urban areas: the planning matrix of the new territory;

Fig. 1 Launch forum, March 15, 2018.

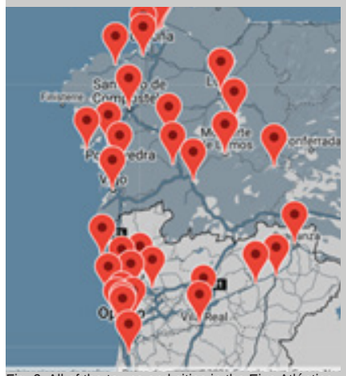


Fig. 2. All of the towns and cities in the Eixo Atlántico.

Fig. 3. Logo of the Eixo Atlántico.

Fig. 4. Forums and seminars.

Fig. 5. Interreg Spain-Portugal logo.

Fig. 6. Eixo Atlántico projects.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.3 Promote local training and improve funding.

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

SG8 GUARANTEE ACCESS TO HOUSING

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

(3) Urban planning for attractive, sustainable, inclusive towns and cities (4) Internal urban mobility and external connectivity and (5) New models for access to urban services.

2. **Competitive towns and cities**: growth and employment; (1) Employment and skills for employment in the local economy; (2) Innovation and digitalisation; (3) Energy; (4) Education and talent; (5) Culture and creative territories; (6) Tourism; (7) The maritime dimension; (8) Rural economy and traditional products and (9) Territorial and urban marketing.

3. Green towns and cities: the challenge of sustainability; (1) Optimising urban metabolic flows (energy, water, materials); (2) Achieving energy sufficiency: the energy transition; (3) Rational land use: reversing the artificialisation of land; and (4) Creating a healthy, high quality urban space.

4. Inclusive, participatory towns city: new society (1) Demography, health, social policy and inclusion; (2) Multiculturalism, interculturalism and cultural education; (3) Structural, functional and legal security; (4) Comprehensive urban revitalisation programmes; (5) Housing and (6) Communication policies.

5. **Efficient municipalities**: new local administrations (relational local entities); (1) Democratic governance: leadership and drive for an integrated urban development strategy; (2) Administrative efficiency and transparency: one administration to manage the strategy; (3) Funding: adequacy, transparency and financial autonomy; and (4) Networking and lobbying structures: cooperating and agreeing.

The actions carried out by the Eixo Atlantico also include projects such as EPICAH, which was geared towards promoting the improvement of cross-border cooperation policies and instruments as tools for developing and protecting cultural and natural heritage. (www.interregeurope.eu); EURE, which was aimed at improving support to European urban areas to make them more resource efficient, including circular economy principles as a cross-cutting priority of integrated urban policies and ensuring proper environmental management; C3D-Cities: Cohesion, Cooperation and Development, which was a multi-regional project carried out by the Eixo Atlántico (Spanish and Portuguese) and the Association of The Duero Riverside Muncipalities–AIMRD, aimed at contributing to developing towns and cities on the Spanish-Portuguese border by promoting cross-border cooperation in various strategic areas, with a view to improving the cohesion of the area of cooperation; and MC2-Critical Mass and Cooperation, which was also carried out by the Eixo Atlántico (Spanish and Portuguese) and the Association of The Duero Riverside Muncipalities–AIMRD, aimed at implementing the Eixo Atlántico Urban Agenda and cooperation as an instrument of Euroregional development by **coordinating policies** and promoting active citizenship.

RESULTS

The Eixo Atlántico is a non-profit association dedicated to supporting initiatives that promote cross-border cooperation. In this regard, it carries out actions that promote collaboration and interrelationships between all the municipalities that make it up, ranging from cooperation and improving governance, to promoting culture, sport and training, and providing technical advice and public services to municipalities and citizens and designing and managing European projects.

More specifically, the results achieved include drawing up and approving the Urban Agenda and the Action Plan as a territorial strategy, and actions that are beginning to be implemented within this framework. These include drawing up a Sustainable Urban Mobility Plan that avoids drawing up 35 separate plans and that provides coherence and **structures the relationship** between all of the towns and cities and their functional areas, while taking the particular features of each municipality into account.

The Atlantic Eixo also promoted the preparation of a Cohesion Map of the urban system in its territory based on data collected in all the towns and cities, their neighbourhoods and peri-urban parishes. The works are currently in the tendering phase. As far as the goals of the Urban Agenda Action Plan are concerned, each one of them sets out the expected results in concrete terms.

PROCEDURE

The Porto Declaration (April 1, 1992) was the founding document of the Eixo Atlántico. **Three stages** have taken place since then: the foundation stage (1992-1999) with the two cities that initiated the constitution of the Eixo: Porto and Vigo, acting as Presidents; the consolidation stage (2000-2006), which included amendments to the Articles of Association in 2002 to create the General Secretariat, which has management powers, powers of representation and signing contracts and agreements with third parties, as well as all those delegated to it by the President and the Executive Committee, to strengthen the Secretariat, with the establishment of Coordinators in Porto and Vigo; and the international projection stage, which is still ongoing today.

REGULATORY FRAMEWORK

The Eixo Atlántico was legally constituted based on the Framework Convention on cross-border cooperation between territorial communities or authorities published in the Official Journal of the European Communities of October 16, 1990, which entered into force on November 25 of the same year.

This Framework Convention determined the conditions for setting up **cross-border associations** governed by private law.

ASSESSMENT

LESSONS LEARNED

Working through town and city networks has proven to be a good way of tackling major objectives by **consolidating small territorial, economic, political and demographic spaces**, making it possible to generate and use economies of scale and agglomeration, and develop cutting-edge infrastructures and activities. The aim was also to become part of an international system that would provide access to and use of a growing volume of information and sharing of experiences and technologies, in addition to obtaining leadership roles and involvement, through the networks, in higher level action areas.

GOVERNANCE AND TRANSFERABILITY

The Eixo Atlantico is an example of collaboration and governance that could easily be replicated in other areas, regardless of whether they are cross-border or not, as a working methodology based on functional areas with common interests. In accordance with its Articles of Association, Eixo is funded by dues paid by its members, grants from public bodies, donations, legacies and aid of any kind which the Association may receive; grants from national and international bodies to cover the cost of services; loans, bank credit and other similar financial instruments, where legally permissible, and funding under Community programmes.

SUSTAINABILITY

In general, Eixo's activity, and its Urban Agenda in particular, is a benchmark for work and methodology for achieving greater **sustainability of the territory** from an environmental, economic and social perspective.

Fig. 7. Eixo Atlántico urban system.

EURE
Interreg Europe
European Union
European Regional Development Fund
Fig. 8. Eixo Atlántico projects.

Xogos do Eixo Atlántico
Fig. 9. Xogos de Eixo Atlántico.

CAPITAL DA CULTURA EIXO ATLÁNTICO
Fig. 10. Eixo Atlántico capital of culture.

axencia de ecoloxía urbana
agência de ecologia urbana
do eixo atlântico
Fig. 11. Axencia de ecoloxía urbana.

SUMMARY

The Pamplona Urban Observatory is an instrument for continuously analysing and assessing the reality of the city, the aim of which is to provide social, economic and institutional actors, and the general public, with an updated vision of the urban environment as an exercise in transparency and information exchange.

It is also a **governance tool** aimed at analysing the city and providing useful information to support and guide public decision-making and strategic planning.

OVERVIEW

OBJETIVES

The Pamplona Urban Observatory has the following objectives:

- To offer social, economic and institutional actors, and citizens in general, **an overall, up-to-date vision** of the environment of the city of Pamplona and its neighbourhoods, as a tool for transparency and exchanging knowledge.

- To guide and support decision-making and the implementation of strategic actions in the city, based on the value of data and information.

- To be a tool for evaluating and monitoring compliance with the indicators for the different policies and **strategies of the city** of Pamplona, mainly the 2030 Agenda and the Pamplona 2030 Urban Agenda Strategy.

BACKGROUND

The preparation of the Pamplona 2030 Urban Agenda Strategy and the commitments undertaken with the international Urban Agendas and the Spanish Urban Agenda highlighted the priority need for direct, up-to-date information based on statistical data that will not only make it possible for Pamplona to respond to the information requirements of other administrations, but also to structure its own policies and monitor them.

Although the city council had this information before the Observatory was created, its systematisation and publication represent a fundamental advance in transparency.

DESCRIPTION

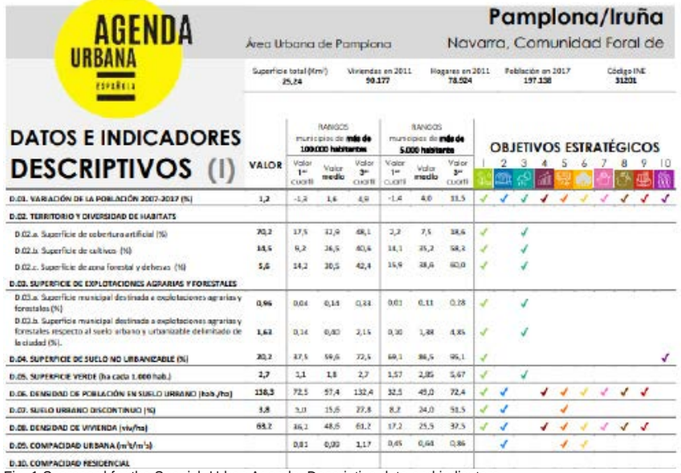
The Observatory draws on the city council's own data sources and, in some cases, those of other institutions. It is a repository where information on the city of Pamplona is collected and disseminated. It is structured in 10 thematic blocks and contains approximately **200 indicators**, in some cases broken down by neighbourhood. Data and indicators on the following topics can be found in these blocks:

1 Population and demographics: this shows the demographic situation, evolution and basic demographic indicators of Pamplona and its neighbourhoods. It includes data and graphs such as the population pyramid, evolution of the population from 1997 to 2021, evolution of the birth rate, death rate and population growth since 1975, evolution of migration since 2001, evolution of the population of Pamplona since 1877, annual growth rate, population by country of growth, marriage rate, child percentage, youth percentage, ageing index, trend index and dependency ratio.

2 Social welfare and housing: In this area, there are **socio-economic data** such as average net income per person, average net income per household, poverty risk rate and the Gini index, as well as data such as the number of children and families cared for in the child and family care programme. The wage gap between migrants and natives, guaranteed income per neighbourhood and per 100 inhabitants, and extraordinary economic aid are also covered. As far as data on housing is concerned, there are data on the average price per m2 in Pamplona and its neighbourhoods, difficulty in accessing housing, housing characteristics and type of housing (main, second or empty).

3 **Urban economy, trade and tourism**: there are four data blocks in this section. The first block, the wage structure, includes data such as the average gross annual wage per person per neighbourhood, and the wage gap between men and women by neighbourhood. The second block, the labour market, contains data such as registered unemployment by sex and age, distribution of registered unemployment by sector, municipal labour force statistics and social security registrations by sector of activity. The third block, commerce, includes data such as business tax by neighbourhood and the number of premises available by neighbourhood. And the fourth block, tourism, covers data such as hotel establishments, rooms, occupancy by beds, employment, number of passengers at Pamplona airport and passengers arriving and departing on conventional long-distance trains.

4 Environment, energy and mobility: this is organised in five blocks, namely mobility, climate change, energy model, waste collection and land use. Data related to urban mobility include the number of urban transport passengers, average journey time to work, percentage of journeys to work on foot, number of bicycle parking spaces, km of cycling infrastructure, km of cycling infrastructure by neighbourhood and vehicle fleet (cars, motorbikes, vans and lorries, buses and industrial tractors). Data on climate change include air quality, sustainability indicators by neighbourhood and adaptive capacity indicators by neighbourhood. Data on the energy model include **energy consumption**, energy demand by administrations and public services, emissions, cost (euros) and CO2 emissions prevented by using renewable energies. Data on waste collection takes the amount of paper and cardboard collected and the number of yellow and blue containers into account. And lastly, land use, there are data on the continuous and discontinuous residential urban fabric, industrial, commercial, public, military and private units, urban green areas, sports and leisure facilities, agricultural and natural areas.


AGENDA URBANA ESPAÑOLA

Área Urbana de Pamplona — Pamplona/Iruña, Navarra, Comunidad Foral de

DATOS E INDICADORES DESCRIPTIVOS (I)	VALOR	RANGOS municipios de más de 100.000 habitantes: Valor 1er CUARTIL	Valor medio	Valor 3er CUARTIL	RANGOS municipios de más de 5.000 habitantes: Valor 1er CUARTIL	Valor medio	Valor 3er CUARTIL	OBJETIVOS ESTRATÉGICOS 1 2 3 4 5 6 7 8 9 10
Superficie total (Km²) 25,24								
Viviendas en 2011 50.177								
Hogares en 2011 78.524								
Población en 2017 197.138								
Código INE 31201								
D.01. VARIACIÓN DE LA POBLACIÓN 2007-2017 (%)	1,2	-1,8	1,6	4,9	-1,4	4,0	11,5	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D.02. TERRITORIO Y DIVERSIDAD DE HABITATS								
D.02.a. Superficie de cobertura artificial (%)	20,2	17,5	32,9	68,1	2,2	7,5	38,6	✓ ✓
D.02.b. Superficie de cultivos (%)	14,5	6,2	16,5	40,6	14,1	25,2	58,2	✓ ✓
D.02.c. Superficie de zona forestal y dehesas (%)	5,6	14,2	30,5	42,4	15,9	28,6	60,0	✓ ✓
D.03. SUPERFICIE DE EXPLOTACIONES AGRARIAS Y FORESTALES								
D.03.a. Superficie municipal destinada a explotaciones agrarias y forestales (%)	0,46	0,04	0,14	0,33	0,01	0,11	0,28	✓ ✓
D.03.b. Superficie municipal destinada a explotaciones agrarias y forestales respecto al suelo urbano y urbanizable delimitado de la ciudad (%).	1,61	0,14	0,80	2,15	0,30	1,88	4,85	✓ ✓
D.04. SUPERFICIE DE SUELO NO URBANIZABLE (%)	20,2	17,5	59,6	72,5	69,1	86,5	95,1	✓ ✓
D.05. SUPERFICIE VERDE (ha cada 1.000 hab.)	2,7	1,1	1,8	2,7	1,57	2,85	5,67	✓ ✓
D.06. DENSIDAD DE POBLACIÓN EN SUELO URBANO (hab./ha)	158,3	72,5	97,4	132,4	32,5	49,0	72,4	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D.07. SUELO URBANO DISCONTINUO (%)	5,8	3,0	15,6	27,8	8,2	24,0	51,5	✓ ✓ ✓
D.08. DENSIDAD DE VIVIENDA (viv/ha)	65,2	36,2	48,6	61,2	17,2	25,5	37,5	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D.09. COMPACIDAD URBANA (m²t/m²s)		0,81	0,90	1,17	0,45	0,64	0,86	✓ ✓ ✓ ✓
D.10. COMPACIDAD RESIDENCIAL								

Fig. 1 Scorecard for the Spanish Urban Agenda. Descriptive data and indicators.

DATA

LOCATION
Pamplona, Navarre.

ACTORS
· Pamplona City Council, Strategic Office.

DATES
· 2020: Under development.

AREA OF ACTION
The scope of application is the city of Pamplona, but it extends its information to other European cities.

SOURCES
Pamplona Urban Observatory:
https://www.pamplona.es/la-ciudad/observatorio-urbano

PHASE
Under development.

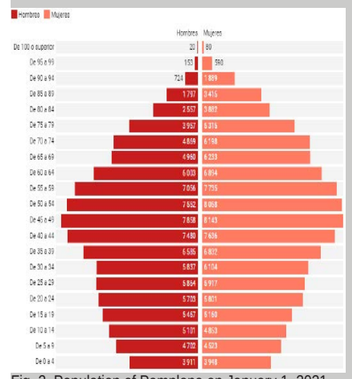


Fig. 2. Population of Pamplona on January 1, 2021.

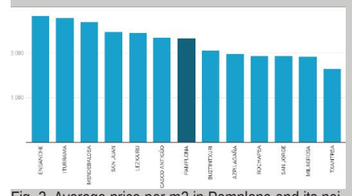


Fig. 3. Average price per m2 in Pamplona and its neighbourhoods.

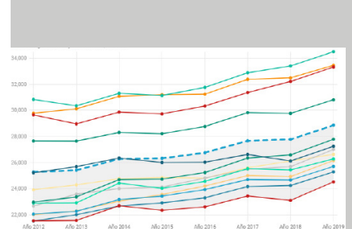


Fig. 4. Average gross annual salary per person and neighbourhood.

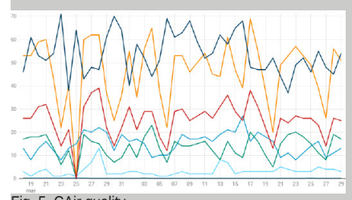


Fig. 5. CAir quality.

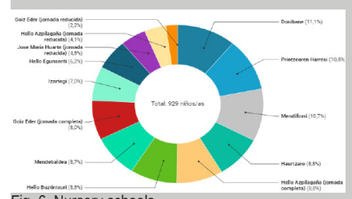


Fig. 6. Nursery schools.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

5 **Culture and education**: as far as culture is concerned, it consists of data such as the programmes carried out by the city council in 2019, activities in public areas, book loans in the library network in 2019, users registered in the library network and the number of people using the Civivox network in 2019. As regards education, data are collected on the level of studies, higher education, enrolments at different institutions and grants.

6 Public safety and coexistence: data such as crime, drug arrests, traffic offences and accidents are taken into account.

The Observatory also includes a "System of Indicators on the Pamplona 2030 Urban Agenda Strategy", which includes data relating to achieving the strategic objectives organised around the 5 dimensions, with monitoring through surveys and reports. Moreover, the Observatory includes a **comparison of Pamplona** against 88 major European cities on the quality of life and social welfare in "Pamplona on the Eurobarometer" across 21 different topics, which are;

- Living in the city.
- Life as a citizen.
- The environment.
- Finding a job.
- Family financial situation.
- The presence of foreigners.
- The integration of foreigners.
- Housing.
- Public services.
- Public administrations.
- Security.
- Citizens.
- Urban transport.
- Health services.
- Sports facilities.
- Cultural spaces.
- Streets and buildings in neighbourhoods.
- Public spaces.
- Green spaces.
- Local commerce.
- The education network.

The last two sections are devoted to the results of the local elections held since 1979 and to Pamplona City Council's own studies on the **social reality** of the city, ranging from analyses of the needs of the elderly to a survey on empowering young people and citizens' perceptions of the socio-economic consequences of COVID-19.

RESULTS

The Observatory, which has been available on the city council website since June 2021, is one of the instruments provided for in the framework of the Pamplona 2030 Urban Agenda Strategy and includes indicators associated with each of its Strategic Goals, which will be updated periodically to provide a continuous picture of the **evolution and development** of the city of Pamplona in terms of the general objectives pursued by the 2030 Strategy.

PROCEDURE

The Pamplona City Observatory is included in the Scorecard of the Pamplona 2030 Urban Agenda Strategy, which is currently being drawn up, and was officially presented in June 2021.

The Pamplona 2030 Urban Agenda Strategy is the **strategic document** which will help move the city towards the desired city model by executing, implementing and developing a series of Strategic Projects within the framework of the International Agendas and the Spanish Urban Agenda.

In this context, the Observatory's approach involves updating it on a regular basis in order to provide a continuous picture of the evolution and development of the city of Pamplona in relation to each of the general objectives pursued by the 2030 Strategy.

REGULATORY FRAMEWORK

The framework of the 2030 Agenda, International Urban Agendas, the Spanish Urban Agenda and the Pamplona 2030 Urban Agenda Strategy, from which it arose.

ASSESSMENT

LESSONS LEARNED

Carrying out any policy that aims to be **strategic and cross-cutting** requires having a set of urban indicators to produce valid, homogeneous information to analyse the performance of the different actions and check that the proposed strategic objectives are being fulfilled.

The Pamplona Urban Observatory responds to this technical, practical need for the internal management of the city council, but it also makes all of the information available to all potential stakeholders and the general public as an exercise in transparency and information exchange.

GOVERNANCE AND TRANSFERABILITY

The need for information to adopt **public policies** and to monitor and evaluate them is widespread in all municipalities in Spain, irrespective of their size or population.

Many cities already have Urban Observatories with the same objectives as Pamplona, although its link with the City's Urban Agenda, its accessibility by citizens and interest in the information available means that the tool, its design and content can be replicated by other city councils with the same purpose and interest.

The creation, development and maintenance of the Observatory is one of the competences of the city's Strategic Office, which is responsible for promoting, managing and coordinating cross-cutting municipal strategies, plans, programmes and projects that affect several municipal areas, and for analysing forecasts on the social reality of the city and its transformations as a way of improving decision-making.

SUSTAINABILITY

As a tool at the service of a comprehensive, **cross-cutting, integrated** Urban Strategy, the sustainability of the Observatory is directly linked to the sustainability of the objectives and policies to which it contributes. It is fully aligned with the goals of the 2030 Agenda and the Spanish Urban Agenda.

Fig. 7. Studies carried out by Pamplona City Council. Report on the focus groups of the young population of Pamplona.

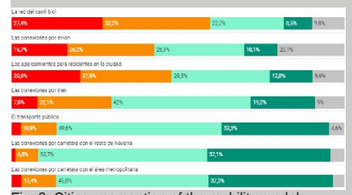


Fig. 8. Citizen perception of the mobility model.

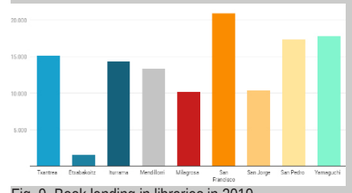


Fig. 9. Book lending in libraries in 2019.

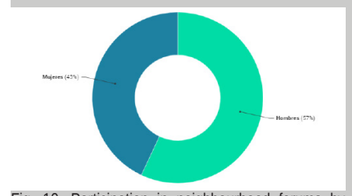


Fig. 10. Participation in neighbourhood forums by gender.

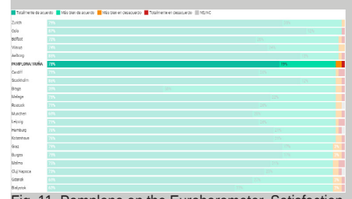


Fig. 11. Pamplona on the Eurobarometer. Satisfaction with living in the city.

DATA

LOCATION
Spain.

ACTORS
· Ministry for Ecological Transition and the Demographic Challenge.
· National Centre for Educational Innovation and Research (CNIIE by its Spanish acronym).
· National Centre for Environmental Education (CENEAM by its Spanish acronym).
· Involvement of Autonomous Communities.
· Involvement of schools.

DATES
· 2009. The initiative started with the collaboration and support of CENEAM.
· 2012: It was given the name ESenRED.
· 2012. It had the collaboration and support of the CNIIE.
· 2014. ESenRES-CNIIE collaboration agreement signed.

AREA OF ACTION
The whole country.

SOURCES
Ministry for Ecological Transition and the Demographic Challenge:
https://www.miteco.gob.es/es/ceneam/recursos/

RECOGNITION
ESenRED was nominated for the UNESCO-Japan Prize for Education for Sustainable Development in 2021.

PHASE
In the implementation phase.

SUMMARY

ESenRED (School Networks for Sustainability) is a national network of sustainable non-university education centres promoted by public administrations (Autonomous Communities, local councils, provincial councils, etc.).

ESenRED is a **structure of networks** with common interests and goals, which was set up as a community of practices in which all of its members can act and take responsibility on an equal footing, thereby creating a cooperative network. ESenRED promotes change and progress in the networks, providing a way in which to practice shared responsibility, whereby people representing each network can contribute in different roles, resulting in distributed, shared leadership.

Significant changes brought about by education on the environment in schools require a balanced mix of encouragement, support and demand, together with a planned strategy to facilitate them. ESenRED is a good option for integrating efforts, resources and joint plans.

OVERVIEW

OBJETIVES

In order to create an **agile, functional, sustainable network** model linked to practices carried out in educational centres that takes student learning as the focal point of the whole process, ESenRED's objectives are as follows:

- To facilitate meetings, sharing, collaboration and dissemination between the different networks on actions, resources, materials and ideas.

- To promote reflection, evaluation and innovation on one's own practices in order to collectively build knowledge on models of reference.

- To develop common or shared projects via networks that are looking towards permanently improving students' learning competences, by playing an active role, as well as permanently improving the professional competences of the teaching staff.

- To build contacts, relationships and get involved in common sustainability-related projects with other international school networks.

BACKGROUND

There seems to be little doubt that dealing with **environmental** issues at school will have influenced the culture of sustainability among citizens, in particular the younger ones.

But the topic of Education for Sustainable Development (EDS) in schools has not had the critical reflection and further development it merited. As a result, the **transversality** that schools needed so desperately to be more closely linked to the society to which they belonged, for which they would have been so grateful when it came to creating a culture of sustainability, was not achieved.

In order to do so, it was necessary to take a leap forward, which involved trying to get closer to reality. To do this required a recognition of the factors that facilitated or hindered ESD in schools in Spain and then develop a number of proposals for action in line with the SDG Learning Objectives proposed by UNESCO in 2017 and the Education for Sustainable Development Roadmap also proposed by UNESCO in 2014, which had already been partly described in a reference work published by UNESCO in 2012 called L'éducation pour le développement durable (Education for Sustainable Development).

DESCRIPTION

ESenRED is a structure of networks with common interests and goals, which was set up as a **community of practices** in which all of its members can act and take responsibility on an equal footing, thereby creating a cooperative network.

ESenRED promotes change and progress in the networks, providing a way in which to practice shared responsibility, whereby people representing each network can contribute in different roles, resulting in **distributed, shared leadership.**

Significant changes brought about by education on the environment in schools require a balanced mix of encouragement, support and demand, together with a planned strategy to facilitate them. ESenRED is a good option for integrating efforts, resources and joint plans.

Each of the networks that make up ESenRED offers:

- Merging the perspectives of different regional Departments of Education and the Environment, with the aim of integrating them into the day-to-day dynamics of schools.

- A framework for increasing the effectiveness and efficiency of **education policies** in terms of innovation, evaluation, quality and sustainability.

- A place for strengthening students' level of competence, their training on social and ethical values, cooperative work and socialisation, autonomy and entrepreneurship, and the assumption of individual and collective responsibilities and commitments.

The goal is to improve local and global environments through the work in the different networks and, to this end, the challenges are:

- Consolidating the work carried out to date and bringing as many Autonomous Communities together as possible.

Fig. 1. Facts about the Youth Conference.

Fig. 2. Image of an EsenRED event.

ES en RED

Fig. 3. ESenRED logo

Fig. 4. 4th International Youth Conference (CONFINT) (Alcázar, 2018).

Fig. 5. Provincial CONFINT, Albacete.

Fig. 6. Programa Centres Ecoambientals del Govern de les Illes Balears (Eco-environmental Centres Programme) promoted by the Government of the Balearic Islands).

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

10.2 Ensure citizen participation and transparency and promote multilevel governance.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.2 Reduce greenhouse gas emissions.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

4.4 Reduce waste and promote its recycling.

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.2 Strive for equal opportunities from a perspective of gender, age and disability.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Promote the knowledge society and make progress towards developing smart cities.

- Creating **synergies**, intercommunication, research, evaluation, quality criteria and new projects between the different Spanish networks and to enhance the experiences of each network through these exchanges.

- Providing young people with places for research, reflection and action, where they feel they are involved, through CONFINT (International Youth Conference, held every two years) and Youth Encounters (held every two years, in years when there is no CONFINT).

- Creating a network of young people who take responsibility and action for the environment and who communicate through **new technologies** and specific forums such as CONFINT or similar.

RESULTS

The following programmes and networks are currently involved or have shown interest in getting involved:

- School Agenda 21-Horizon 2030, Albacete.
- Aldea Programme, Andalusía.
- Red de Escuelas por el reciclaje (Schools for Recycling Network) in Asturias
- Ceuta.
- Extremadura.
- Centros Educativos hacia la Sostenibilidad (Schools for Sustainability) in La Rioja.
- CRIF Las Acacias Madrid.
- Centros por la Sostenibilidad)Schools for Sustainability) in the Valencian Community.
- Educar hoy por un Madrid más sostenible (Educating today for a more sustainable Madrid) - Madrid City Council.
- Escuelas Sostenibles (Sustainable Schools) in Palencia.
- IRAES.
- Programa de centres ecoambientals (Eco-environmental Centres Programme) in the Balearic Islands.
- Red de Escuelas Sostenibles (Sustainable Schools Network) in Navarre.
- redECOS (Canary Islands).
- XESC-Xarxa d'escoles per la sostenibilitat.

As of 2020, the numbers for ESenRED were as follows:

- 4,562 centres.
- 1,690,000 students taking part.
- 110,000 teachers involved.

Other initiatives that have been achieved so far include the following:

- Creation of a Blog in March 2011.
- Participation in CONFINT since 2010 (International Youth Conference).
- Creation of a Seminar.
- Creation of a Symposium.
- Creation of 'Acción 5 de Junio' (Action on June 5).

PROCEDURE

In 2009, ESenRED started working with and receiving support from CENEAM and, in 2012, with CNIIE, with whom a collaboration agreement was signed in 2014.

From the moment it was created, autonomous communities could be integrated into the programme by including and contributing their **schools network for networked sustainability.**

REGULATORY FRAMEWORK

The ESenRED framework is based on the Millennium Development Goals (MDGs 2005-2015) and the Sustainable Development Goals (SDGs 2015). This good practice has led to documents and proposals aimed at achieving **more sustainable schools.**

ASSESSMENT

GOVERNANCE AND TRANSFERABILITY

The **transferability** of this good practice is a fundamental aspect of it, which is why the initiatives to disseminate this activity include the following:

- Creation of the ESenRED blog in 2011, updating the link in November 2016.

- Holding the ESenRED Seminar since 2010, with the 11th edition taking place in December 2020 with more than 400 participants.

- Holding the first CONFINT (Youth Conference: Let's Take Care of the Planet) in 2010, in which 600 young people from 47 countries, 8 from ESenRED, took part.

- The European CONFINT has been held three times to date:

· 2012: Brussels, Committee of the Regions. 11 countries, 70 young people, 12 from ESenRED.
· 2014: Brussels. Committee of the Regions. 12 countries, 87 young people, 16 from ESenRED.
· 2018. Lisbon. Cascais Cultural Centre. 10 countries, 67 young people, 14 from ESenRED.

- The Spanish CONFINT has been held four times to date:

· 2012: Vitoria, 5 networks, 101 young people.
· 2014: Barcelona, 10 networks, 121 young people.
· 2016: Logroño, 11 networks, 119 young people.
· 2018: Alcaraz (Albacete). 9 networks, 120 young people.

The ESenRED Teachers' Symposium has been held six times since 2015. The many resources that ESenRED offers to the education community include the following: Padlet for ESenRED schools in the wake of **COP25;** Youtube Channel; Twitter; Symposium.

Different systems have been proposed for funding the network:

- LIFE funds. LIFE European Mink is an example of collaboration between institutions, bearing in mind that environmental education projects are also welcomed.

- MEC, CENIIE, Ministry for Energy Transition: One of the ministries is considered to be the most likely entity from which to seek funding.

- The K2 line of Erasmus Plus: this requires the involvement of at least 3 countries. One of the partners must lead the project, in which case it would be necessary to make ESenRED a legal entity, or for a ministry to take on this role.

SUSTAINABILITY

Sustainability is key to the activity of this good practice as it is its raison d'être, as its name suggests. **Sustainability** is pursued in two ways: by managing schools and through the content and activities taught to pupils.

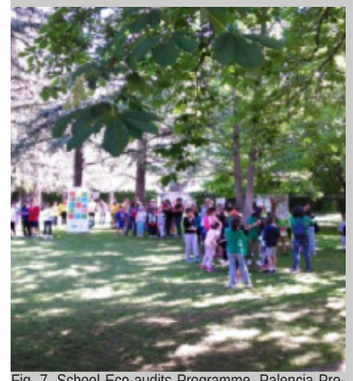


Fig. 7. School Eco-audits Programme, Palencia Provincial Council.

Fig. 8. Recognition of Schools for Sustainability, Government of La Rioja

Fig. 9. La Rioja Schools Environmental Conference

Fig. 10. School Agenda 21 Programme, Government of the Basque Country.

Fig. 11. Euskal CONFINT.

EXEMPLARY BEST PRACTICES

SPECIFIC GOALS

1.3. IMPROVE GREEN AND BLUE INFRASTRUCTURES AND LINK THEM TO THE NATURAL CONTEXT.
· A. Vitoria green belt.

2.1. DEFINE AN URBAN MODEL THAT PROMOTES COMPACTNESS, URBAN BALANCE AND THE PROVISION OF BASIC SERVICES.
· B. 22@ Barcelona Programme.

2.2. ENSURE FUNCTIONAL COMPLEXITY AND DIVERSITY OF USES.
· C. Bilbao Ría 2000.

2.4. IMPROVE THE URBAN ENVIRONMENT AND REDUCE POLLUTION.
· D. Madrid Río Plan.

6.1. REDUCE THE RISK OF POVERTY AND SOCIAL EXCLUSION IN DISADVANTAGED URBAN ENVIRONMENTS.
· E. Santa Coloma de Gramanet Conservation and Restoration Area.

7.1. STRIVE FOR LOCAL PRODUCTIVITY, JOB CREATION AND THE DYNAMISATION AND DIVERSIFICATION OF ECONOMIC ACTIVITY.
· F. Restoration of the Old Town in Santiago de Compostela.

DATA

LOCATION
Vitoria-Gasteiz, Basque Country.

ACTORS
· Vitoria-Gasteiz City Council.
· Environmental Studies Centre (CEA).
· Municipal Department of Territory and Climate Action.
· Ministry for the Environment.
· European Union.

DATES
· 1992: Start of the first recovery project.
· 1999: The Green Belt is included in the General Development Plan.
· 2012: Completion of the development and signposting of the Green Belt Route.

AREA OF ACTION
Peri-urban areas of Vitoria-Gasteiz (833 hectares).

DATES
Vitoria-Gasteiz Environmental Studies Centre.

RECOGNITION
'Best' Good Practice, at the 3rd Dubai International Best Practices Awards (2000).
'Best' Good Practice, at the 10th Dubai International Best Practices Awards (2014).

PHASE
In the implementation phase

SUMMARY

At the start of the 1990s, Vitoria-Gasteiz City Council carried out a number of actions in the peri-urban area to improve the environment on the **outskirts** of the city. Over the decades, these actions have become a belt that defines and has shaped the city of Vitoria-Gasteiz. The resulting scheme is a 'Green Belt' consisting of several large parks interconnected via a number of different connecting features and spaces, ranging from tree-lined hedgerows and stretches of riverbanks.

The Green Belt is an example of an urban and peri-urban initiative for conserving and improving biodiversity, eco-efficiency and economy of resources, adapting to the landscape and functionality for public use that has been achieved over 30 years, through specific measures ranging from environmental regeneration to promoting allotments for rent and creating interpretation centres. It is a municipal-scale project that has socially, environmentally and economically boosted the city of Vitoria-Gasteiz.

OVERVIEW

OBJETIVES

In order to provide a comprehensive solution to the peripheral spaces affected by the problems characteristic of urban-industrial fringe areas, several specific objectives were defined for the project. Through the use of specific actions, the project focused, in some cases, on creating new **green spaces** and, in others, on **rehabilitating** degraded areas or areas of low environmental or social quality. One of the specific objectives was to promote the conservation of natural values and biodiversity in the urban periphery. It also focused on satisfying the public's demand for open-air leisure areas, thereby reducing the pressure on other natural spaces close to the city.

Another objective was to make use of the potential of local natural areas as an educational and interpretative resource. The ultimate aim of all this was to involve and educate citizens about caring for and conserving the natural heritage of Vitoria-Gasteiz, by giving this area its own unique identity.

BACKGROUND

The outskirts of Vitoria-Gasteiz were generally fairly run-down. In addition, due to previous actions on the river basins, flooding in the urban environment had started to become a recurring problem, resulting in high economic costs. In order to tackle this problem and recover peri-urban spaces, it was decided to undertake a large-scale project that would include the entire periphery of the city and provide a solution for both the most run-down and the most natural areas.

DESCRIPTION

The project began with the aim of creating a **network** of peri-urban green spaces that would form a continuous grid around the city. From the outset, environmental objectives to improve and promote biodiversity were intertwined with social objectives, in an attempt to enhance access from the city based on the ecosystem services that these peri-urban natural areas could provide to the city. In 1992, the Environmental Studies Centre (CEA by its Spanish acronym) of Vitoria-Gasteiz City Council carried out its first action, clearing an old gravel pit in Zabalgana to convert it into a park with a forest.

In 1999, the works were completed, and the park was created, marking the start of the physical implementation of the Vitoria-Gasteiz Green Belt. Work started in 1994 on recovering the Salburua wetland, a park that in 2002 was added to the **Natura 2000 Network** list as a Ramsar Wetland and SCI (Site of Community Interest).

It began as a project to restore the outskirts of Vitoria-Gasteiz, both from an environmental and social point of view and, thanks to the success of its projects, it became a municipal commitment that has continued for 30 years, resulting in the creation of a large natural perimeter for recreational use around the city. Now, the Green Belt is made up of a group of **peri-urban parks of high ecological and scenic value** strategically linked by eco-recreational corridors.

The Green Belt is renowned for its outstanding natural wealth. Forests, rivers, wetlands, meadows, hedgerows and riverbanks, and even a botanical garden, are a taste of the varied ecosystems that coexist in the Green Belt. From the point of view of public use, the Green Belt offers excellent possibilities for leisure, walking and outdoor activities. All of the parks have recreation areas, information panels and an extensive network of trails. The Green Belt can be easily accessed from any point in the city and can be covered in its entirety along a circular route of more than **30 km**.

The Green Belt is also an ideal place for carrying out environment-related education activities, thanks to its natural riches and the various facilities installed in its parks, such as the organic allotments, the bird observatories, the Ataria Interpretation Centre and the Casa de la Dehesa in Olarizu.

RESULTS

A large number of actions and projects have been carried out that were aimed at promoting the values of nature and encouraging the public to use the periurban parks, as well as improving connectivity between them and with the rest of the green areas and natural spaces in the vicinity.

This has succeeded in establishing a strong link between the citizens of Vitoria and the green environment surrounding the city. In addition to the route itself, 6 parks have been created with their own identities and characteristics: Armentia, Errekaleor y Las Neveras, Olarizu, Salburua, Zabalgana, and Zadorra. Specific actions have been carried out in each park, aimed at enhancing certain values and features and solving specific problems.

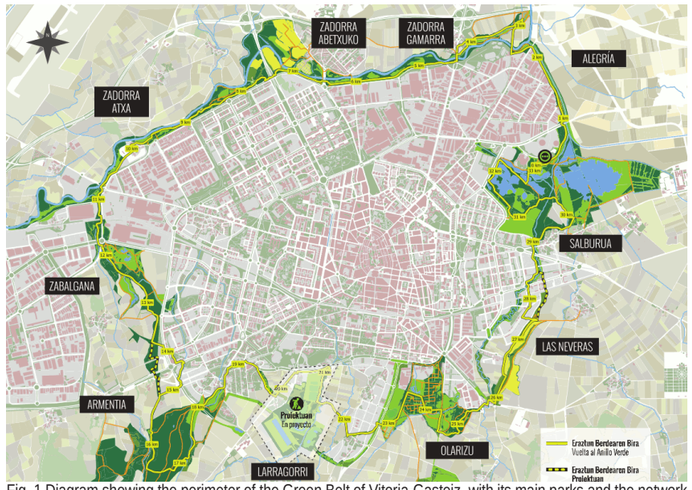


Fig. 1 Diagram showing the perimeter of the Green Belt of Vitoria-Gasteiz, with its main parks and the network linking them.

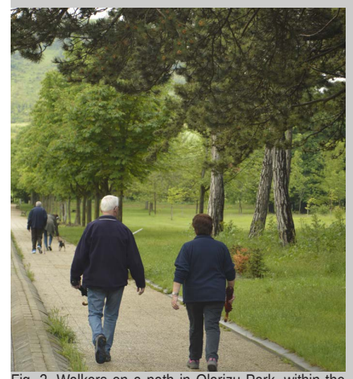


Fig. 2. Walkers on a path in Olarizu Park, within the Green Belt.

Fig. 3. Photograph of the Abetxuko allotments.

Fig. 4. Photograph of the Salburua wetlands.

Fig. 5. Aerial photograph of Vitoria-Gasteiz showing part of the Green Belt.

Fig. 6. Photograph of the Ataria building, the Saburua Wetlands Interpretation Centre.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.3 Improve green and blue infrastructures and link them to the natural context.

1.1 Plan land use in a way that is compatible with its territorial environment.

1.2 Preserve and improve natural and cultural heritage and protect the landscape.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

3.3 Improve resilience to climate change.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.3 Promote material cycles.

4.4 Reduce waste and promote its recycling.

SG5 ENHANCE PROXIMITY AND SUSTAINABLE MOBILITY

5.1 Promote cities of proximity.

5.2 Promote sustainable means of transport.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.4 Design and implement training and awareness-raising campaigns on urban issues, together with the exchange and dissemination of knowledge.

In some cases, joint solutions were undertaken to deal with several problems. This is what happened in the case of the Salburua wetlands and Zadorra Park, where **environmental recovery** work was linked to improving hydrological functionality.

PROCEDURE

The first action was carried out in 1992 and consisted of the ecological recovery of the Zabalgana gravel pit. After several years of minor actions in the peri-urban environment of Vitoria-Gasteiz, the first environmental education activities started in 1996 involving around 1,400 people. One year later, in 1997, Vitoria-Gasteiz City Council signed an agreement with the Alava Provincial Council to manage Armentia Park. In 1998, the Arcaute reservoir (Salburua) was restored as part of the Santo Tomás and Errekaleor river diversion project, with funding from the European Union. Also in 1998, the Olarizu allotments project got underway, based on converting an area previously occupied by agricultural holdings, degraded grasslands and uncontrolled dumping. Having already made an impact due to the scale of the projects carried out, in 1999 the Green Belt was included in the Vitoria-Gasteiz **General Urban Development Plan.**

In 2000, the Green Belt project and its continuation (2004) was selected as a Best Practice at the 3rd Dubai International Best Practices Awards, organised by the Spanish Committee on Habitat, for its contribution to "improving the living conditions of citizens from a sustainable development perspective". Two years later, in 2002, Salburua Park was designated a Wetland of International Importance by the Ramsar Convention due to its ecological quality. Moreover, also in 2002, the Green Belt was awarded funding by the Ebro Hydrographic Confederation to carry out the first phase of the project for the hydraulic adaptation and environmental restoration of the River Zadorra as it flows through Vitoria-Gasteiz. In 2004, in order to continue creating the Green Belt, the project to create walkways around the Green Belt was implemented and the first guidebook on walks in the area was published. Also in 2004, the Salburua and River Zadorra Wetlands were designated as Sites of Community Interest in the Natura 2000 **Network.**

In 2005, work was completed on creating a flood channel in Zadorra Park in Gamarra, to prevent flooding, and the environmental and social dimension of the Green Belt was consolidated in 2007 with the construction of the Salburua Wetlands Interpretation Centre, at **Ataria**, and the associated environmental education programme was set up. Projects to improve the peri-urban environment continued and, also in 2007, the Urarte (Abetxuko) allotments were restored in the River Zadorra park, as an alternative to the illegal allotments on the banks of the river. In 2008, funding was received from the Fundación Biodiversidad (Biodiversity Foundation) to install and update the information panels in the Green Belt parks. The INBIOS project to increase biodiversity in the Salburua wetlands was carried out between 2008 and 2009, with funding from the Fundación Biodiversidad.

In 2010, the European Forest Arboretum was completed and a year later, the Germplasm Bank went into operation, both in the Olarizu Botanical Garden. In 2012, the Green Belt Route was refurbished and signposted with a truly remarkable infrastructure. Between 2012 and 2016, the Roots of Tomorrow project to plant 250,000 trees and shrubs in the Green Belt was implemented with the collaboration of the public.

In 2015, the Salburua and River Zadorra Wetlands were designated as Special Areas of Conservation (SAC) in the Natura 2000 Network, and a Special Protection Area for Birds, in the case of the Salburua wetlands.

REGULATORY FRAMEWORK

The regulatory framework for creating the Vitoria Green Belt was mainly the Vitoria-Gasteiz General Urban Development Plan.

ASSESSMENT

LESSONS LEARNED

The main lesson learned was that there is a real possibility of changing the way we understand cities and their expansion, fostering **biodiversity** and environmental care without sacrificing urban needs. Moreover, what is most interesting is that this example shows that citizens can identify with and make a municipal initiative their own, an initiative which is also inseparable from the city itself. Through the Environmental Studies Centre, Vitoria-Gasteiz City Council managed to undertake a sound, sustained project that has brought identity and recognition to the city by promoting and caring for the natural environment and urban access to it.

GOVERNANCE AND TRANSFERABILITY

A number of initiatives were carried out to raise awareness about this project and ensure that citizens now recognise their place in the urban reality of Vitoria-Gasteiz, such as:

The "Adopt a tree and grow with it" campaign to raise the awareness of schoolchildren and the general public, aimed at promoting the conservation and improvement of native vegetation. More than 1,000 holm oaks have been planted every year through this programme. Ecological allotments for the elderly thanks to giving allotments to people over the age of 55 for organic cultivation. Informational exhibitions at the Centre for Environmental Studies, dealing with different environmental and sustainability topics (such as bioclimatic architecture, waste, fauna and ecology). The routes and guided tours include educational and recreational activities that allow visitors to discover its ecological, socio-economic and scenic values. The environmental restoration workshop schools carried out in different areas of the Green Belt. And specialist training courses: landscape and environmental planning, new technologies and the environment, sustainable urban planning, environmental monitors, bioclimatic architecture, etc.

The existence of the **Environmental Studies Centre** (CEA) of Vitoria-Gasteiz City Council has been a key factor in carrying out this project over such a long period of time. This department's team, led by Luis Andrés Orive, has carried out all of the projects that currently make up the Green Belt. The support of the town council, no matter which political party has been in power over the last 30 years, has also been fundamental to the continuity of the project.

SUSTAINABILITY

This project has enhanced biodiversity in the city, increased ecosystem services and integrated ecological and hydrological processes and flows into the urban fabric through proper planning and management. It has also created environments that are good for health, collective well-being and the general habitability of the city. Equally importantly, it has **raised the awareness** of Vitoria's citizens about the relationship between nature and society and, in particular, about the goods and **services provided by ecosystems**, including their economic valuation.

These are all compelling reasons why this project can be considered a prime example of integrated urban sustainability.

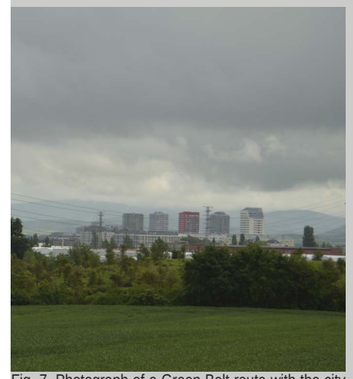


Fig. 7. Photograph of a Green Belt route with the city of Vitoria-Gasteiz in the background.

Fig. 8. Road in the Green Belt that connects the city with one of the nearby villages.

Fig. 9. Photograph of Armentia Park.

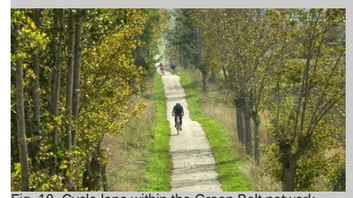


Fig. 10. Cycle lane within the Green Belt network.

Fig. 11. Photograph taken from Olarizu Park with Casa de la Dehesa de Olarizu in the background.

DATA

LOCATION
San Martin District, Barcelona.

ACTORS
· Barcelona City Council.
· Sociedad 22@ S.A.
· Federation of Neighbourhood Associations of Barcelona.
· Eix Pere IV neighbourhood round table.
· 22@Network Business Association.
· Poblenou Neighbourhood Association.
· University of Barcelona (UB).
· Technical University of Catalonia (UPC).
· Pompeu Fabra University (UPF).
· Open University of Catalonia (UOC).
· Foundation B_TEC Campus Diagonal Besòs.
· Consorci del Besòs.

DATES
· July 2000: Approval of the 22@ project through the revision of the Barcelona Metropolitan General Plan.
· November 2000: creation of the private municipal company 22@ BCN, S.A.U.
· 2017: Creation of a document that could guide the future transformation of Poblenou.
· 2018: The document "Towards a Poblenou with a more inclusive and sustainable 22@" was signed.

AREA OF ACTION
198.27 Ha = 115 blocks.

SOURCES
22@, A more inclusive and sustainable Poblenou:
https://ajuntament.barcelona.cat/ecologiaurbana/mpgm22@/es/

PHASE
In the implementation phase.

SUMMARY

The 22@Barcelona project is located in the former industrial neighbourhood of Poblenou, in the Sant Martí district. The 22@ Programme proposes **transforming** approximately 200 hectares of industrial land into an innovative production district, equipped with excellent infrastructures, offering more than three million square metres of modern, technological, flexible spaces in the centre of Barcelona to be used as a strategic hub for knowledge-intensive activities.

Following the approval of the modified Barcelona General Metropolitan Plan in 2000, the exclusivity of industrial use under the 1976 Plan was abolished and a new concept of productive space was created, with a commitment to complexity and a coexistence of uses. The new 22@ urban planning classification, which replaced the previous 22nd (industrial use), made it possible for technological uses, offices and auxiliary urban industry to coexist with housing, hotels, business-related rental flats, certain commercial uses, community facilities and facilities to support the productive system.

OVERVIEW

OBJETIVES

The objectives of this urban plan, which has a more general vision, are urban regeneration to revitalise the Poblenou neighbourhood, to promote and encourage the Urban Economy and to lead and promote digital innovation. In order to achieve these objectives, the plan is to build a mixed city by preserving the existing fabric, restructuring the neighbourhood and improving its **identity, culture and heritage**. Also, to promote emerging economic activities of an innovative, productive and creative nature and to improve environmental quality. And lastly, to improve management and governance.

BACKGROUND

Poblenou was a sector in the municipality of Sant Martí de Porvençals, which proved to be ideal for relocating factories. Its proximity to the city, a railway line, its proximity to the port and affordable land prices determined its development. As a result, in 1897 the municipality of Sant Martí de Pronvençals was added to Barcelona, along with other municipalities that are now known as districts of the city, thereby becoming an **industrial municipality** at the same time. Cotton and Indian fabric print factories were the main feature of Poblenou, which soon became known as "The Catalan Manchester", referring to the English city that played a leading role in the Industrial Revolution.

The 1970s marked the collapse of industrial activity in Poblenou and in the world. The 1976 General Metropolitan Plan, however, reaffirmed the industrial nature of the neighbourhood, classifying 74% of the m2 in Poblenou as industrial (Boixader 2004). The neighbourhood began a process of urban and social decline which, in the 1990s, was somehow reversed thanks to the Olympic Games. From that point on, the first neighbourhood campaigns started to demand subsidised housing and protection of assets, and the General Metropolitan Plan was modified.

DESCRIPTION

This project is **a new model for making a city.** The 22@ Project is a reinterpretation of the function of the pre-existing industrial fabric by means of a flexible and progressive transformation over time, while retaining the layout, streets and historical elements catalogued as heritage. The end result is a balance between what has been retained, what has been transformed and what has been replaced. The Project has transcended the low density nature of traditional industrial areas and opted for a dense, complex urban space, meaning that land can be used more efficiently, while at the same time contributing to interaction and the exchange of information between the various urban actors and to developing the economic sector.

Unlike the previous situation where 100% of the industrial land was privately owned, under the current urban plan 30% of the industrial land has become public land in order to create new green areas, facilities and social housing.

This option is a commitment to a high quality, compact, mixed, sustainable urban model that is more balanced, more hybrid, more ecologically efficient, more economically powerful and more cohesive.

In short, it proposed a model of a **compact, diverse city** which is committed to a mixed plan that provides social cohesion and more balanced, more sustainable urban and economic development, as opposed to a model specialising in industrial land use only.

As a result, productive activities coexist with research, lifelong learning and technology transfer centres, housing and commerce in a high quality environment that makes density compatible with a balanced provision of open spaces and facilities.

One of the characteristics of this project is the implementation of the most innovative sectors that are designated "@ activities". In 2019, the **Superblock model** was implemented in the Poblenou neighbourhood.

RESULTS

Unlike traditional urban plans, this project did not determine the end result of the transformation, i.e. it did not set out a detailed, precise planning of the territory, but promoted a gradual renovation adapted to the characteristics of each part of the territory by means of secondary planning.

The 22@ Project was designed to allow for a **gradual renovation** of the industrial areas and therefore has a flexible time frame. It is unfinished, but the data obtained during the years of development have been very encouraging (data up to September 2014):

- The neighbourhood has grown from 3,437 businesses in 2000 to 8,823 registered at the last census in 2015. Of the almost 4,500 companies set up in recent years, 47.3% are newly created and the rest are companies that have relocated from other neighbourhoods. 30% are dedicated to technology or knowledge. 93,000 people work in the 22@ district.

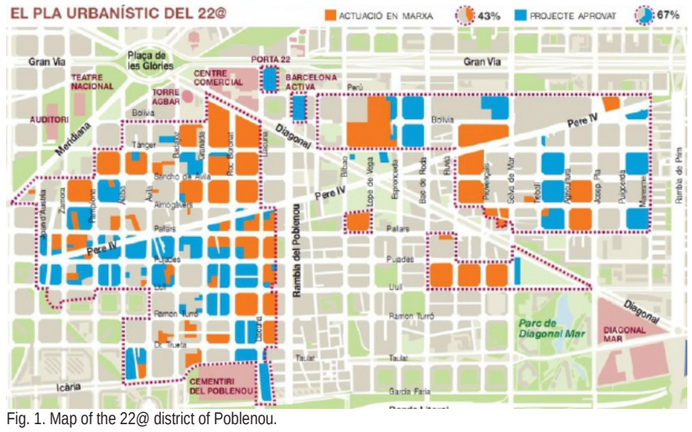


Fig. 1. Map of the 22@ district of Poblenou.

Fig. 2. Aerial view of Poblenou.

Fig. 3. State of completion of the Agbar Tower: September 2005.

Fig. 4. Special Infrastructure Plan in Poblenou.

Fig. 5. Urban development and heritage management.

Fig. 6. Axonometric projection of part of 22@ Poblenou

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the overall quality and accessibility of public spaces.

2.4 Improve the urban environment and reduce pollution.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

SG9 LEAD AND PROMOTE DIGITAL INNOVATION

9.1 Design and implement training and awareness-raising campaigns on urban issues together with the exchange and dissemination of knowledge.

9.2 Promote e-government and bridge the digital divide.

- In terms of urban transformation, more than 1,600 social housing units have been completed out of the 4,000 planned. 40,737 square metres of green area have been **developed** (out of a total of 114,000 m2) and 14,000 square metres of land for facilities (out of 145,000 m2) have been built, dedicated both to the productive fabric (e.g. the MediaTIC building) and to the neighbourhood (Llacuna school).

- In terms of the social transformation of the neighbourhood, the population of the Sant Martí district increased by 3.69% between 2007 and 2014, above the average for Barcelona.

In short, a new model for a technological city has been created, a pioneer in its own right in this field, which is becoming a benchmark for other cities that are seeking to convert and transform old disused industrial areas by promoting compactness, urban balance and the provision of services.

PROCEDURE

In 1998, the **first document** on "criteria, objectives and general planning solutions for renovating the industrial areas of Poblenou" was presented to the public. This document was then processed until its definitive approval in July 2000.

Between 2001 and 2003, the whole urban planning and management process began. In 2004, work began on installing the infrastructures and buildings. The peak of this phase occurred between 2005 and 2008, resulting in a more consolidated neighbourhood.

During the 20 years since the final approval of the MPGM22@ in 2000 and the beginning of the **transformation** of this area, around 68% of the land has been developed.

REGULATORY FRAMEWORK

The regulatory framework in force in Catalonia under which the different planning instruments have been drafted is as follows:

- Legislative Decree 1/2010, of August 3, approving the Revised Text of the Urban Planning Law of Catalonia.
- Law 18/2007 of December 28 on the right to housing.
- Decree Law 17/2019 of December 23, on urgent measures to improve access to housing.
- Decree 305/2006, of July 18, approving the Regulation of the Urban Planning Law.
- Legislative Royal Decre 7/2015, of October 30, approving the Revised Text of the Law on Land and Urban Rehabilitation.

This renovation process was also governed by three regulatory plans:

- The Modification of the General Metropolitan Plan (MPGM by its Spanish acronym).
- Special Infrastructure Plan (PEI by its Spanish acronym).
- The Modification of the Special Plan for the Historical and Artistic Architectural Heritage of the city of Barcelona, which added 68 new items of industrial heritage in Poblenou to the Heritage Catalogue of the city of Barcelona.

DERIVATIVE PLANS

In line with the desire to transform the territory in a flexible way, the 22@ Plan **provided for different secondary planning instruments** based on the size of the area to be transformed and the pre-existence of the site with an initiative that was both public and private.

ASSESSMENT

LESSONS LEARNED

One of the lessons learned was the implementation of citizen participation, involving the target population, which improved the impact of the results of the actions and their duration.

GOVERNANCE AND TRANSFERABILITY

In addition to the resources used to create the project and its implementation, there is also an initiative to manage the resources created by the operation of the neighbourhood due to its innovative and technological nature.

To this end, the company 22@ S.A. promotes the **circular economy** in the district, exchanging and reusing surplus resources from 22@. It is a shop –Scrap Store 22@– for the surplus resources of companies and organisations in the area, a place where companies can show and exchange materials that they have thrown away but which can be reused. It is an opportunity to create synergies between companies that will involve an economic production and consumption model.

The 22@ Programme was one of the first urban innovation districts in the world and, since then, innovation districts have spread all over the world.

22@ Barcelona is now a **benchmark model** for other neighbourhoods in the city and for many other cities that share the same desire to transform disused industrial areas and are committed to sectors that generate jobs and wealth in the territory through urban, economic and social transformation.

The model applied in Barcelona has been a source of inspiration for other cities around the world, giving it the added value of transferability to cities such as Rio de Janeiro, Boston (STARTHUB BOSTON), Istanbul, Medellin, New York, Cape Town and Cape Town.

SUSTAINABILITY

Sustainability can be found in all its perspectives: social, economic, environmental and urban.

As far as social sustainability is concerned, the aim was to **encourage the interrelationships** of different professionals and support for innovative projects (entrepreneurs), strengthening ties and increasing the participation of different actors: universities, companies, local governments, social, educational and cultural institutions.

As for economic sustainability, the aim was to create a scientific, technological and cultural platform to position Barcelona on an international level in these areas, thereby making it a dynamic, innovative city.

In order to achieve greater environmental sustainability, the aim was to strengthen the different urban renovation phases in land transformation operations, in those actions where it had been decided to maintain existing buildings and fabrics, in aspects related to configuring public spaces and in the forecasts for the new infrastructure plan.

As far as urban sustainability was concerned, the aim was to **recycle the obsolete industrial fabric** of Poblenou and create a compact, mixed, balanced model: combining productive spaces that coexist with social housing, public spaces, green areas and facilities.

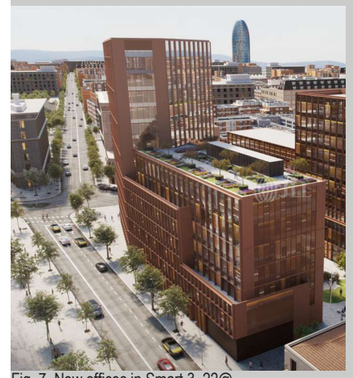


Fig. 7. New offices in Smart 3, 22@.

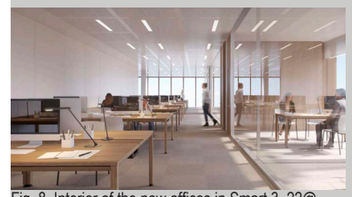


Fig. 8. Interior of the new offices in Smart 3, 22@.

Fig. 9. New residential buildings in 22@.

Fig. 10. Interior of lofts in 22@.

Fig. 11. Aerial view of the industrial neighbourhood of Poblenou. 20th century.

DATA

LOCATION
Bilbao, Basque Country.

ACTORS
· Basque Government and Bizkaia Provincial Council.
· Bilbao City Council and Barakaldo Town Council.
· Port Authority of Bilbao, Adif and SEPES (Entidad Pública Empresarial de Suelo).

DATES
· 1992: Bilbao Ría 2000 was created.
· 1994: the first major urban works started in Ametzola.
· 1995: the General Urban Development Plan was approved.
· 2011: the work in Abandoibarra was completed.

AREA OF ACTION
The area around the Nervión estuary as it flows through the metropolitan area of Bilbao.

SOURCES
Bilbao Ria 2000:
https://www.bilbaoria2000.org/

RECOGNITION
2002: Fundación Metrópoli Award.
2005: Award of Excellence from the International Society of City and Regional Planners (ISOCARP)
2007: BILBAO Ría 2000 voted Best Basque Company of 2006.
2010: Award of Excellence from ISOCARP.

SUMMARY

A major urban development started at the end of the 1980s to revitalise the metropolitan area of Bilbao. An extraordinary project was undertaken around the Estuary and the improvement of its infrastructures with the main objective of promoting a **new metropolitan** model in Bilbao. This process started at the beginning of the 1990s with the aim of lifting Metropolitan Bilbao out of its state of decline.

The urban changes carried out both in Bilbao and in the adjacent municipality of Barakaldo have transformed the urban landscape of the metropolitan area, solving many of the social, economic and cultural problems, as well as the general degradation that the area around the estuary had undergone for several decades. Actions such as building the Guggenheim Museum and restoring the Conference Centre and Music Hall have consolidated the new cultural identity of Bilbao. Others, such as the work carried out on railway infrastructures, the urban development of the docks, the Garellano Urban Renovation Plan and the new access network to the A-8 have significantly improved the metropolitan area.

OVERVIEW

OBJETIVES

The overall objective of this project was the **urban transformation** of Bilbao. It was a transformation of the city of Bilbao and the surrounding area that would create a new economic fabric driven by services, culture and new industries. To achieve this, a number of specific objectives were decisive, including:

The modernisation of Bilbao's industry and the promotion of other economic sectors to provide the metropolitan area of Bilbao with a complex, diverse economic system. In this regard, one of the specific objectives was to move a large part of the port activities to the exterior port. This also made it possible to plan the **regeneration of urban regions** and industrial areas in the metropolitan area that had become very run-down and dilapidated, such as the shipyards.

Therefore, another specific objective was to redevelop the areas occupied by shipyards, container yards and blast furnaces into promenades, parks, new residential neighbourhoods and business areas.

BACKGROUND

The growth process of the Bilbao metropolitan area, backed above all by the boom in heavy industry, took place to the detriment of the river environment in which the city is located. Industrial and port facilities occupied some of the best land on the banks of the estuary, and the urban centres had been forced to develop away from the estuary, on the slopes of the valley. Among other things, this led to the estuary, which ran adjacent to the population centres, becoming particularly run-down and vulnerable to urban degradation.

In the 1980s, structural changes in the economy affected Bilbao and its surroundings, gradually undermining its industrial fabric. The Abandoibarra area, where the Guggenheim Museum would be built after the Bilbao Ría 2000 project, reflected **Bilbao's past as an industrial port city.**

Other areas, such as the Ametzola sector, formed an area of about 110,000 m2 occupied by three railway stations that were a physical barrier between the different southern areas of Bilbao.

DESCRIPTION

Bilbao Ría 2000 acted as a driving force in the regeneration of Bilbao's metropolitan area. It managed this regeneration thanks to a number of actions focused around five large regions along the River Nervión. In 1994, work was carried out in the Ametzola area, on the underground stretches of two railway tracks, and building a total of 900 homes and a new park. In 1996 work began in the Abandoibarra sector, where a new urban area was planned along the river with a large expanse of green area and the creation of the Guggenheim. Action was also taken in the municipality of Barakaldo through the Urban-Galindo operation. It began in 1998 and involved reclaiming a large tract of land formerly occupied by the steel industry.

These were the main actions that Bilbao Ría 2000 used to try to shift Bilbao's centre of gravity towards the estuary, revitalising the urban area as a whole. In addition, the Port Expansion Project made it possible to increase mooring and warehousing capacity. The action also included modifying the **public transport model** that involved incorporating the Metro into Bilbao in 1995, and implementing the plan for various accesses to Bilbao, which provided the city with a complete ring road, thereby removing through traffic from the centre of Bilbao.

RESULTS

Many projects of a very diverse nature were carried out along the length of the Bilbao estuary. The Abandoibarra area, with an area of around 346,000 m2, was the site of a new business centre where a group of buildings was built (mainly for offices, but also for residential use), along with a leisure and commercial centre, a hotel, 700 new homes, the library of the University of Deusto and the Rector's Office of the University of the Basque Country. This was all set in an environment of almost 200,000 m2 of green areas and open spaces along the estuary. In addition, two major cultural investments were made: the Guggenheim Museum and the Conference and Music Centre.

This project transformed the area around Ametzola into a new residential area (900 homes, 150 of which were social housing) with a 36,000 m2 park and a large green area. Furthermore, a **complete regeneration** project was carried out on a neighbourhood in Barakaldo, 50% of which was funded by the European Union through the URBAN programme. An estimated 15,000 citizens benefited from this programme

Fig. 1 Photograph of part of Bilbao estuary.

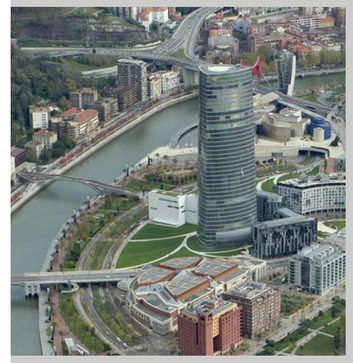


Fig. 2. Aerial photograph of the Abandoibarra area after the regeneration project had been completed.

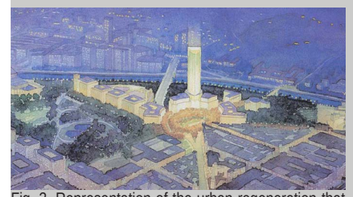


Fig. 3. Representation of the urban regeneration that was to be carried out in Abandoibarra.

Fig. 4. Bilbao Ría 2000 logo.

Fig. 5. Photograph of the Guggenheim Museum during the construction phase.

Fig. 6. Photograph of San Mamés metro station.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.2 Ensure functional complexity and diversity of uses.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.3 Improve resilience to climate change.

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

in Barakaldo, with an investment of 3.2 billion pesetas. In the end, the Galindo operation sought to convert the area into residential, leisure and business use, with space for 2,000 new homes and green areas. The new Galindo operation integrated Barakaldo into the metropolitan area of Bilbao, eliminating its status as a peripheral town.

PROCEDURE

The first steps were taken by Bilbao City Council, which had already set the General **Urban Development Plan** in motion, presenting the main guidelines in the 1989 Preliminary Plan, which was finally approved in 1995. The two largest urban areas (Abandoibarra and Ametzola) were located mostly on land owned by central government companies, a factor which made the process easier, bearing in mind that the Directorate General of the Ministry of Public Works and Transport was planning to coordinate actions in various Spanish cities.

Due to the large scale of the project undertaken in Bilbao, it was necessary to create a body to bring together the different inputs and coordinate all of the interests involved in regenerating Metropolitan Bilbao. This need was met by the company Bilbao Ría 2000, which was created at the end of 1992. It was created as a public limited company with public capital. 50% of the shares were held by the Central Administration and the other 50% by Basque Administrations (Basque Government 15%, Bizkaia Provincial Council 15%, Bilbao City Council 15% and Barakaldo Town Council 5%). It was supported by the European Union.

Bilbao Ría 2000 took on the **execution of the proposals** included in the Bilbao General Urban Development Plan related to urban planning, transport and environmental projects in run-down and industrial areas in decline and disuse. The infrastructure was developed after the land was transferred from the shareholders and owners and the land was reclassified by the city council.

The capital gain from the sale of these already developed plots to private developers was invested in actions of general interest (Southern rail branch (Variante sur ferroviaria), Bilbao la Vieja and Urban-Galindo in Barakaldo). Grants from the European Union were available in addition to this income. The most significant projcets undertaken include:

The **Bilbao Metro**, designed by the architect Norman Foster - the first line was operational in 1995 and substantially changed metropolitan mobility and opened the door to a new public transport system.

The construction of two bridges over the estuary, the Euskalduna bridge (Javier Manterola) and the Zubizuri footbridge (Santiago Calatrava), both in Bilbao city centre and inaugurated in 1997, which demonstrated the desire to strengthen communication between the two banks of the river, among other things.

The **extension of the exterior port** carried out by the Port Authority of Bilbao to improve port management, which also included a new railway freight station, making it possible to free up space for new urban uses.

Finally, the **Comprehensive Sanitation Plan**, managed by the Consorcio de Aguas, made it possible to create a new sewerage network, thereby avoiding any direct discharge of effluent or wastewater into the estuary.

Faced with a challenge of such magnitude, Bilbao City Council, Bizkaia Provincial Council, the Basque Government and the Central Government, as well as different bodies such as the Port Authority and companies linked to the administration such as Renfe, Feves and Sepes, all agreed on the need to create an special purpose company capable of managing the urban transformation of Bilbao.

Therefore, Bilbao Ría 2000 has had very strong political and social support from the beginning.

REGULATORY FRAMEWORK

The main regulatory framework for implementing Bilbao Ría 2000 was the Bilbao General Urban Development Plan.

ASSESSMENT

LESSONS LEARNED

One of the first conclusions that can be drawn from the work of Bilbao Ría 2000 is the danger, and at the same time the economic and employment opportunities that exist in many of the country's urban environments. Cities have, in many cases, become service sector centres, leaving former industrial sites abandoned or unused. The transformation of Bilbao is an **example of an opportunity** in this sense. The industrial, railway and port areas that became vacant after the activity ceased became areas with enormous urban potential.

In the specific case of Bilbao, many of these spaces were located in the very geographical centre of the conurbation. The transformation of these spaces, which still in part convey an image of social and economic degradation, represents a great opportunity for the future, as long as it is done correctly with criteria of quality and sustainability for transforming public space.

Moreover, the transformation of the Bilbao metropolitan area provides another important lesson: the ultimate motive behind urban transformation. Bilbao Ría 2000 had the expertise to come up with the right diagnosis for finding out what was really needed in the urban environment of Bilbao. This was to generate the necessary urban support for setting up a **new economic base**, different from the previous one, which, in one way or another, had run out of steam.

GOVERNANCE AND TRANSFERABILITY

This action would not have been possible without the existence of Bilbao Ría 2000. Thanks to their work, which is still ongoing today, it has been possible to bring continuity, meaning and order to a challenge as great as transforming the urban and economic model of a metropolitan area.

SUSTAINABILITY

Despite the fact that this action started more than two decades ago and that the social, economic and cultural context was not the same then as it is now, there are important lessons to be learned in terms of sustainability. The Bilbao metropolitan area, which today is renowned for the complexity, quality and diversity of its services, came into being thanks to the ideas and planning carried out almost three decades ago.

The value of the actions that have transformed **Bilbao's urban model** over the years is unquestionable, providing an example of how to renew a city by searching for new uses and functions for the urban environment itself. The Bilbao metropolitan area today is more sustainable than it was in the 1980s. That is due, in large part, to this long-term action.

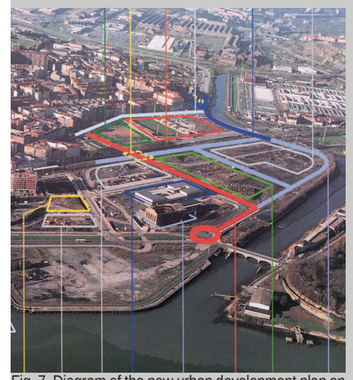


Fig. 7. Diagram of the new urban development plan on the banks of the River Nervión in Barakaldo.

Fig. 8. The new railway system proposed by Bilbao Ría 2000 to reorganise the southern line.

Fig. 9. Image that was used to represent an urban intervention in Barakaldo.

Fig. 10. Diagram of part of the urban development plan that was carried out in Abandoibarra.

Fig. 11. Photograph of the square in Barakaldo where several urban transformations were carried out.

DATA

LOCATION
Madrid, Spain.

ACTORS
· Madrid City Council.
· Department of Urban Planning and Housing.
· Coordination of Urban Planning.
· Directorate General for Urban Planning.

DATES
· 2003: Start of the work on the underground section of the M-30.
· 2011: Completion of work on the Madrid Río park.

AREA OF ACTION
6 km in length and 1,500,000 m².

BUDGET
370.000.000 euros.

SOURCES
Digital magazine, Urban Renewal Plan for the area around the River Manzanares in Madrid. Department of Urban and Regional Planning of the UPM:
http://urban-e.aq.upm.es/

PHASE
Implemented.

SUMMARY

Together with the work on the underground stretch of the M-30 and the renovation of the private area, this project was part of the Master Plan for the Urban Renewal of the area around the River Manzanares launched by Madrid City Council in 2003. Specifically, the intervention consisted of recovering the river corridor of the River Manzanares.

To this end, a comprehensive strategy was set out to carry out building work and work on private open spaces, as well as on the fabric of social and economic activities by means of an innovative proposal based on the sustainable refurbishment, **revitalisation** and renovation of buildings and the urban scene. The purpose of the project was to transform the relationship between the historic centre, the river and the surrounding districts.

OVERVIEW

OBJETIVES

The underlying principle of the project was to connect Madrid with the outer areas of great worth surrounding it (including Monte del Pardo to the north and the fertile cultivated plains to the south). The project's strategy was based on the conviction that it was possible to **connect the city** via the river.

The system of infrastructures and belts that enclosed the city made a continuous connection between the urban landscape and the natural environment impossible and not only rendered it unfit for any other use, but also environmentally degraded the surrounding environment with pollution, dirt and noise.

Therefore, by developing the proposal, the Manzanares River would become the connecting point between the two environments, by building a tree-lined corridor along its banks and installing various bridges and footbridges to link the neighbourhoods transversally and overcome the main traffic infrastructures that made contact impossible. This would recover the river for the city.

Citizen participation was another of the objectives taken into account.

BACKGROUND

Madrid Rio is a narrow strip of land of variable width that follows the River Manzanares linearly for more than **7 km.** Construction of the M-30 began in 1970. Its eastern part covered the land of the Abroñigal stream. In the west, it occupied the banks of the Manzanares. Work ended in 1974. It made the area completely unusable, in addition to the pollution and noise it caused.

In 2003, Madrid City Council decided to reverse this situation and implement a project to reconnect the river with the city centre, creating an underground stretch of motorway and restoring the natural landscape with green areas.

DESCRIPTION

The urban renewal plan for the area around the River Manzanares can be summarised in three main projects: the Calle 30 project, the Madrid Río project on public land and the urban renewal plan for the area around the River Manzanares on private land.

In 2003, Madrid City Council decided to launch an ambitious urban redevelopment project by creating a stretch of one of the city's main ring roads, the M30, **underground**. This urban transformation project was carried out by Madrid Calle 30, a joint venture company, attached to the Madrid City Council's Environment and Mobility Department.

In 2005, the city council launched an International **Ideas Competition** with the aim of obtaining proposals to plan and develop this great void, the Madrid Río project.

The idea was to plan a large urban park 7 km long and 1,500,000 m2 in area on both banks of the river. A comprehensive strategy was proposed In the recovered river corridor for carrying out building work and work on private open spaces and the fabric of social and economic activities, by means of an innovative proposal for the sustainable refurbishment, revitalisation and renovation of buildings and the **urban scene**, which would transform the relationship between the historic centre, the river and the neighbouring districts.

In the end, the winning proposal came from the team led by Ginés Garrido made up of a partnership of Madrid architectural firms –Burgos & Garrido, Porras & La Casta and Rubio & Álvarez-Sala– in collaboration with Dutch firm West 8. The proposal took the form of three landscape units or green areas:

Firstly, the corridor running along the right bank of the river. This was the main continuous structure running longitudinally through the entire park, known as the Salón de Pinos (Pine Tree Hall).

Secondly, the spectacular new setting definitively linking the historic centre, represented by the Royal Palace and the raised ledge of the city, with the largest park in Madrid, the Casa de Campo, covering more than 1,600 hectares.

Thirdly, the new Arganzuela Park complex was planned, including the Matadero contemporary creation centre.

The park represented the largest area of intensive landscaping on the left bank of the river, 33 hectares, and was designed as a large space from which the river had retreated, leaving its age-old mark. That is why it was organised with different intersecting lines, leaving spaces between them for different uses. The main road is the most direct and flattest.

RESULTS

The Madrid Calle 30 Project was an important initiative in terms of mobility throughout the metropolitan region, the quality of life of the people of Madrid and the economic **competitiveness** of the city, as well as the largest ecological rebalancing operation in the recent history of Madrid.

Fig. 1. Madrid Rio Action Plan.

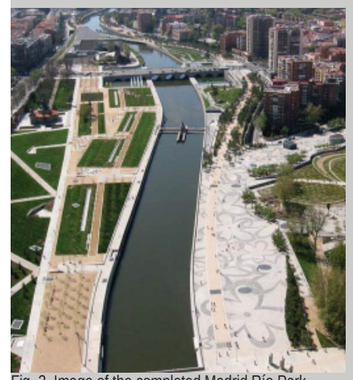


Fig. 2. Image of the completed Madrid Río Park.

Fig. 3. Image of the completed Madrid Río Park.

Fig. 4. Image of the completed Madrid Río Park.

Fig. 5. Image of the completed Madrid Río Park.

Fig. 6. Image of Madrid Río Park, Bridge of Toledo completed.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.4 Improve the urban environment and reduce pollution.

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the quality and accessibility of public spaces.

2.5 Promote urban regeneration.

SG1 PLAN LAND USE AND USE LAND RATIONALLY, CONSERVE IT AND PROTECT IT

1.1 Plan land use in a way that is compatible with its territorial environment.

1.3 Improve green and blue infrastructures and link them to the natural context.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.1 Adapt the territorial and urban model to the effects of climate change and make progress towards preventing it.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

The 5.77 hectares in which Madrid Río park is set feature cycle paths, 33 sports facilities for skating, skateboarding, climbing, 7-a-side and 11-a-side football, indoor football, paddle tennis, tennis, basketball and BMX cycling, 18 children's play areas, 3 bio-healthy circuits, 7 pétanque courts and 12 playgrounds.

In addition, in order to make it easier to spend time and enjoy the new park, 7,541 linear metres of benches, 14 drinking fountains, 337 bike racks and 3,523 lights were installed.

More specifically, the Madrid Río project involved **142 individual plans**, classified into five categories:

- Continuity measures, which were achieved through plans to facilitate accessibility, such as the Salón de Pinos and the renovation of Avenida de Portugal.

- Open spaces, for which plans were drawn up for reforestation and creating a tree canopy and designating protected areas.

- The river, where plans were drawn up to make the River Manzanares more accessible by means of bridges, footbridges, docks and landing stages.

- Urban services, implemented through plans to provide **facilities** and enable activities such as sports, educational programmes, cultural events and health services, and to renovate existing facilities.

- The walkways/trails, through plans to improve the communication network, provide new signage, provide greater pedestrian access via pavements and construct a cycle path throughout the park with pedestrian priority.

In short, this new green lung was a privileged point from which to look out over the city, from **five viewpoints**, and it provided a physical and conceptual continuity that did not previously exist between the city centre and the natural environment surrounding it.

PROCEDURE

Citizen participation was a key factor from the outset when it came to implementing all of the actions undertaken by the city council to carry out the Madrid Río project. Throughout the 2003-2007 legislature, the work to create the underground stretch and reform the M-30 required keeping an open channel of participation through a robust citizen help and information service, consisting of eleven information points installed in the different sections of the areas under construction all over Madrid, where more than ninety thousand queries were received. In September 2005, the Madrid Río Ideas Competition for Children and Young People was launched, and more than five thousand five hundred proposals were submitted by children and young people from Madrid. Many of the proposals were included in the final solution.

In 2007, a structure and methodology to provide citizens with information and encourage them to take part in the project was organised, in line with the **strategic importance** of the project for the city, particularly the districts in the southwest of Madrid. The city council accommodated it in the most satisfactory way for the preferences and needs of the citizens. A public exhibition was held. The exhibition included the other three public exhibition points of the Special Plan. During the public consultation period, 4,232 submissions were made, containing a total of 36,818 specific requests, relating to 227 different topics. The submissions were analysed in detail by the municipal services and the Madrid Río Arquitectos Asociados team.

REGULATORY FRAMEWORK

This practice was supported by a municipal plan called the Madrid Río Special Plan. This plan set out the regulation on uses and controls on possible buildings in the entire area of the project.

The Madrid Río project had a significant impact on the drafting of the city's new General Urban Development Plan, which is the main regulatory instrument for all of the city's municipal policies.

This holistic approach to transformation led to the need for a Special Plan as an urban planning tool to **regulate all of the uses** in this recovered public space. Among other things, this included acting as a channel for participation and a reference programme for the process, thereby making it possible to formally define the urban rehabilitation objective. This Special Plan was proposed with a time frame of four four-year periods in order to achieve all of its determinations.

ASSESSMENT

LESSONS LEARNED

As far as urban and territorial objectives were concerned, the main contribution of the Madrid Río project to the city was not only to incorporate a new 105-hectare park into the city, but also to connect other existing parks and green spaces to form a green corridor of more than 2,000 hectares, thereby spreading the environmental effects of the operation throughout the city and, at the same time, connecting the central and southern districts of the city in a **territorial rebalancing** operation.

In terms of public participation, citizen participation in decision-making on the fate of the city's spaces was shown to be very important, as was having an efficient organisation and a motivated, committed team. The implementation of Madrid Río has brought about a transformation in the way in which a part of the city relates to its surroundings. Where once an average of 200,000 cars drove through every day, today there is an extensive 11 kilometre green network which can be accessed by pedestrians, with neighbourhood buildings, urban parks, gardens and historical monuments, at the heart of which is the River Manzanares.

GOVERNANCE AND TRANSFERABILITY

The Madrid Río project is a well-known intervention due to its large scale and the fact that it entailed a complete renovation of the river environment. Although its replicability is complicated due to the particular circumstances involved, it is an international example of how to recover an **urban river** and integrate it into the city.

The main funding for the project, including the engineering work for the underground section of the motorway and the landscaping of the park, came from municipal resources. Only 6% of the total budget came from state resources and some of the projects were co-funded with EU resources.

The Directorate General for Special Projects was specifically created to manage this project along with some of the city's other flagship projects.

SUSTAINABILITY

The Madrid Rio project was a perfect example of an integrated urban policy with a clear impact on the three pillars of sustainability. From an environmental perspective, the recovery of the river, the creation of an extensive green area interconnected with other parks in the city and the work on the underground section of the M-30 **had a very significant impact** on the area and on the city as a whole, directly linked to an improvement in the quality of life of the city's residents.

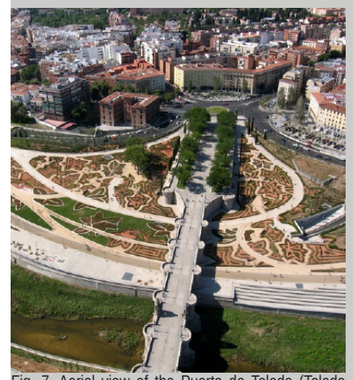


Fig. 7. Aerial view of the Puerta de Toledo (Toledo Gate), Madrid Río project.

Fig. 8. Image of Arganzuela Footbridge.

Fig. 9. Image of Madrid's urban beach.

Fig. 10. Image of the leisure areas in Madrid Río park.

Fig. 11. Image of Matadero Footbridge.

DATA

LOCATION
Santa Coloma de Gramanet, Barcelona.

ACTORS
· Santa Coloma de Gramanet City Council.
· Construction companies involved.

DATES
· 2013-2014 (preliminary phase).
· 2015-2018 (CRA 1, 2, 3 and 4).

AREA OF ACTION
13,6 Ha.

RECOGNITION
Selected as a Good Municipal Practice by the Federation of Municipalities of Catalonia (FMC) and the Fundació Carles Pi i Sunyer d'Estudis Autonòmics i Locals.

SOURCES
Santa Coloma de Gramanet City Council.
https://www.gramenet.cat/

PHASE
Phase 1 completed.

SUMMARY

The area of action is located in Santa Coloma de Gramanet, a municipality in the province of Barcelona, close to the Besòs River Park. The intervention in question consisted of **renovating an area** made up of 360 homes and 26 commercial premises, most of which were built between 1968 and 1974, years in which this area grew in a rapid, disorderly manner, leading to a number of urban planning problems.

One of the main objectives of the action was to improve the quality of life and health of the inhabitants of the neighbourhood, who were elderly, had low pensions and suffered from energy poverty due to a lack of energy efficiency.

To achieve this, a public intervention was required, which combined different phases that involved improving the comfort of the interior of the buildings, their identity and the urban landscape. This was backed up by a complex process of management and mediation between the local administration and the homeowners' associations in order to reach a consensus on funding and intervention.

OVERVIEW

OBJETIVES

The main objectives were to improve the comfort and quality of life of the inhabitants of the neighbourhood by renovating the existing building envelopes.

One of the most innovative aspects of the project was how it was **managed and funded** by Santa Coloma de Gramanet City Council.

BACKGROUND

The area grew rapidly and speculatively during the 1950s and 1960s. A garden city structure was transformed into dense multi-family housing, creating a number of urban planning problems, many of them unresolved.

This area is one of the areas with a **vulnerable population** and low-quality building types in the Barcelona Metropolitan Area.

As far as the Conservation and Rehabilitation Area is concerned, the buildings were mostly built between 1968-1974. Aspects related to hygiene, health and the environment were the most worrying, especially ith regard to damp.

The roofs, façades and party walls also had problems related to conservation and maintenance. Virtually all of the buildings had very low or no insulation in their building envelopes, resulting in condensation and **low energy efficiency**.

DESCRIPTION

The project consists of redeveloping an area made up of 32 buildings (26 multi-family buildings and 6 single-family buildings) which, in turn, are made up of 360 homes and 26 business premises. Given the vulnerability and degraded condition of the building, Santa Coloma de Gramanet City Council decided to lead the process of regenerating and managing each of the phases involved.

To start with, it contacted the residents in the area of action; it contracted and paid for inspections and projects (agreed with each homeowners' association); it managed the applications for subsidies; it signed urban development agreements with the associations; it mobilised the sector using the Conservation and Rehabilitation Area urban planning instrument (more specifically, the intervention described in this document is CRA1), taking on the role of acting Administration; it set up three different methods of payment of the urban planning fee (by Regulation); it jointly tendered all the works as public works (which meant significant savings) and was in charge of collecting the fees from the neighbours.

The strategy employed was based on **preliminary studies** of the initial condition of the building, and on preparing a dossier of information and data that showed the heritage and strong urban identity and built-up nature of this area of intervention.

As the body managing the intervention, Santa Coloma de Gramanet City Council applied the strategy of declaring it a Conservation and Rehabilitation Area, as well as declaring itself as the Acting Administration, thereby determining the obligation of the owners to assume the cost of the rehabilitation operations resulting from the buildings' deficiencies.

Once the urban manager had been designated, a call for **urban landscape tenders** was proposed to set the colour and compositional criteria to guide the work on the façades of the buildings, and the rehabilitation projects were put out to public tender on the basis of the documentation compiled in the study of previous data and the condition of the building, which included building assessment reports and energy efficiency certification.

RESULTS

The results achieved can be broken down into three scales of intervention:

- **The urban and territorial framework:** the proposal focused on rehabilitating the building envelopes, with a direct intervention on the built heritage, which directly affected the identity of the place, resulting in an improvement in urban perception and safety.

- **The urban design and social environment:** action has had an impact on reducing crime rates related to the subjective perception of safety in public areas.

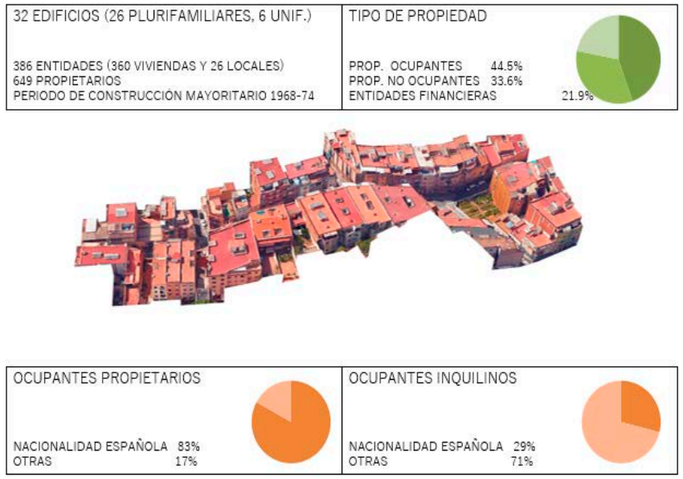


Fig. 1 Area of action and main data.

Fig. 2. Before and after photo of a refurbished building.

Fig. 3. Alzado, the winning tender proposal.

Fig. 4. Continuation of Alzado, the winning tender proposal.

Fig. 5. Area of action and urban context.

Fig. 6. Planning map. Classification of land as per the General Urban Development Plan.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG6 ENCOURAGE SOCIAL COHESION AND STRIVE FOR EQUALITY

6.1 Reduce the risk of poverty and social exclusion in disadvantaged urban environments.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.4 Improve the urban environment and reduce pollution.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG3 PREVENT AND REDUCE THE EFFECTS OF CLIMATE CHANGE AND IMPROVE RESILIENCE

3.2 Reduce greenhouse gas emissions.

SG4 MANAGE RESOURCES SUSTAINABLY AND PROMOTE THE CIRCULAR ECONOMY

4.1 Be more energy efficient and save energy.

SG10 IMPROVE INTERVENTION INSTRUMENTS AND GOVERNANCE

10.2 Ensure citizen participation and transparency and promote multilevel governance.

10.3 Promote local training and improve funding.

- **Building**: the rehabilitation of buildings focused mainly on improving and adapting the building envelopes.

As far as socio-economic aspects are concerned, the project included a detailed study on the socio-economic structure and was able to mobilise the area's social and institutional network through public and private resources. The support and assistance given to residents by the city council's technical staff throughout the entire process, via an interesting and innovative management and funding system, played an important role in the project.

PROCEDURE

The procedure consisted mainly of four phases, which were implemented in the following chronological order:

- The preliminary phase. consensus was sought from residents in order to **initiate the project.** This began in 2013 with the formulation of the proposal and continued in 2014 by getting the presidents of the residents' associations together to inform them about the inspections that needed to be carried out.

- The consultation phase: information was exchanged with residents at three levels. First, at a general level, from a monitoring committee made up of representatives of the residents' associations and the city council. Then, at a community level, through meetings with each of the residents' communities. And finally, at an individual level, through one-to-one meetings with homeowners.

- The preparation phase: this was made up of **three parallel processes**. Firstly, the approval and tendering of the project. Secondly, notification and call for tenders. And thirdly, the signing of the agreement through the Mediation Service.

- The implementation phase: this was estimated to take two years, during which monitoring was carried out in the same structure as the consultation phase.

REGULATORY FRAMEWORK

RELATED POLICY AND LEGISLATION

- Santa Coloma de Gramanet General Urban Development Plan.
- Barcelona Metropolitan Area's Law on Neighbourhoods.
- Barcelona Metropolitan Area's Proyecto de Convivencia (Coexistence Project).

SECONDARY PLANNING AND URBAN DEVELOPMENT

The Local Housing Plan 2017-2021 is a secondary planning document.

ASSESSMENT

LESSONS LEARNED

The lessons learned were about the importance of management, clearly defining the scope of action, and paying special attention to energy efficiency in buildings:

- Managing the action in **conjunction with the homeowners** improved planning from the point of view of inclusive participation in the project. Having the city council manage some of the procedures and technical issues such as land registry certificates, energy efficiency certificates, fees for technical building inspections (ITE by its Spanish acronym), etc., facilitated and encouraged the implementation of the project by citizens.

To this end, the creation of the Local Technical Office was key.

- Managing the funding by creating three **types of aid**, each of which was personalised to suit the circumstances and needs of each individual.

- The scope of work was considered essential for carrying out an exhaustive study of the current situation in order to define and plan the guidelines and actions to be carried out as closely as possible to reality.

- The **rehabilitation of buildings**, in terms of reducing energy demand, and therefore having a positive impact on reducing climate change.

GOVERNANCE AND TRANSFERABILITY

The actions carried out are an example for other municipalities that have urban areas integrated into the urban fabric with problems in their construction and accessibility solutions that could be improved. More than a few municipalities are facing this situation in some areas.

This experience was also shared at various forums, meetings and conferences dedicated to refurbishing buildings and urban regeneration.

The following resources were used, depending on their economic and human nature:

As far as economic resources were concerned, the intervention was supported by public funding from the regional budgets for rehabilitation and urban regeneration managed at a municipal level, and by municipal and private grants from the homeowners' associations.

As for human resources, the municipal administration was responsible for managing land registry certificates, energy efficiency certificates, fees for technical building inspections, as well as reporting to and mediation with homeowners' associations. The costs incurred by the city council were not charged to the expenditure for the intervention, but they were significant.

The creation from the outset of the process of the Local Technical Office in the neighbourhood –**Oficina Local Habitatge**– should also be mentioned. This was possible thanks to putting together a large multidisciplinary team of 18 people from the urban planning department (7), the personal services department (1), the internal and economic services department (4), the local technical office (2) and external staff under service contracts (4).

SUSTAINABILITY

The sustainability of the project was based primarily on the environmental and social aspects.

As fa as environmental sustainability was concerned, there were energy savings due to a reduction in the demand for energy.

On the social side, significant efforts were made to keep residents in their homes and **thus prevent gentrification.**

Economic sustainability also played a role in this action, as savings were reflected in benefits for the residents, whose homes were refurbished.

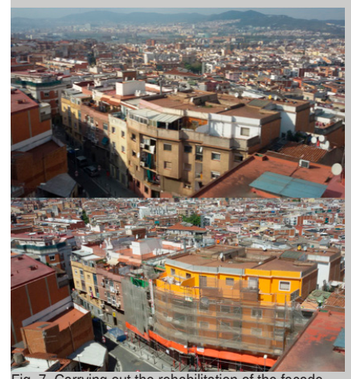


Fig. 7. Carrying out the rehabilitation of the façade.

Fig. 8. Rehabilitation of the façade and the end result.

Fig. 9. Refurbished building.

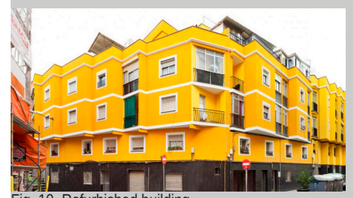


Fig. 10. Refurbished building.

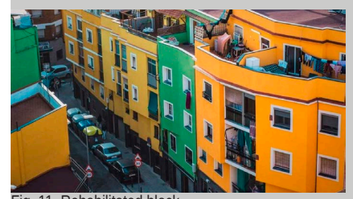


Fig. 11. Rehabilitated block.

DATA

LOCATION
Santiago de Compostela.

ACTORS
· Santiago de Compostela City Council.
· Santiago Consortium and the Ministry of Development.

DATES
· 1997: Definitive approval of the Special Plan for the Protection and Restoration of the Historic City.
· 1999: Special Plan for the River Sarela. Galeras Park.
· 2000: Improvements to Belvís and Simeón Parks. Central actions in the East and West corridors.

AREA OF ACTION
169.9 hectares. It includes the old enclosure within the walls and the old quarters.

RECOGNITION
· 1985: World Heritage Site.
· 1987: Declaration of the Way of St. James as the First European Cultural Route.
· 1992: Firenze Award.
· 1996: Europa Nostra Award.
· 1996: Gubbio Prize.
· 1998: European Urban Planning Award.
· 2002: UN-Habitat Best Practices Award
· 2002: Archival Award.
· 2005: World Heritage Cities Award

SOURCES
Cities For A More Sustainable Future:
http://habitat.aq.upm.es/bpes/onu02/bp205.html

PHASE
Implemented.

SUMMARY

Santiago de Compostela has been tackling the urban restoration and environmental regeneration of its **World Heritage**-listed historic city since the early 1990s. As part of a complex urban planning policy, urban regeneration focuses on two important issues in contemporary historic cities: the preservation of residential uses and the environmental regeneration of open spaces that have become marginalised. More than 650 actions have been undertaken with public aid to stimulate a widespread restoration process with demanding environmental and heritage criteria, leading to more than 400 private initiative actions.

The policy of recovering open spaces (more than 18 hectares of new parks) consolidated two green corridors that include public waterways, trees and vegetation, historic gardens and ethnographic elements. This all took place in a pilgrimage destination for millions of travellers, who, in addition to enjoying the heritage, also immerse themselves in a historic city with all its attributes, including the most fragile and valuable ones.

OVERVIEW

OBJETIVES

With the main objective of restoring the Old Town in Santiago, this project was approached with the aim of preserving the built heritage and the environment, restoring the homes of the resident population, consolidating urban activity by restoring the Old Town as a meeting place and improving it with functions to diversify the cultural, social and economic offer. As many as three main strategies or lines of action can be identified through which this objective was pursued:

- Focus on the **historic city**: promoting a large pedestrian infrastructure, a meeting place, a link between parts of the city. The key to this action was the elimination of road traffic with strict control over access, the creation of new pedestrian routes, and the compactness and continuity of urban growth.

- Give preference to residential use in the historic city. The respective strategies included the comprehensive restoration programme (1,270 buildings, 2,400 homes), and the improvement of facilities and green areas.

- Creating **green corridors** in the historic city: the parks in the West linking the university campuses, connected to the rural landscape and the parks in the East linking popular neighbourhoods close to the Way of St. James, such as recovering the riverbeds and their tributaries.

BACKGROUND

Symptoms of residential, demographic, functional and economic crisis were evident in the 1980s. This was compounded by the pressure of road traffic and the marginalisation of peripheral open spaces and the poorest urban fabrics. Restoration actions were primarily aimed at stabilising the **resident population**.

Some of the signs of crisis, such as 16% of housing units being vacant, and high urban rents, led people to leave the city. 40% of homes were in need of refurbishment.

DESCRIPTION

The measures that had the greatest impact on the project included the maintenance of pavements. Pedestrianisation was undertaken by the city council and was met with resistance from shopkeepers.

This was coupled with the construction of local car parks and improvements to the façades of 1,000 buildings. The measure consolidated the Old Town as a privileged place to stay and socialise. Private spaces were incorporated for public use backed up by environmental regeneration. These actions always conserve the type of materials linked to traditional uses: stone, 'chapacuña', cobblestones and green spaces.

The intervention also included **incorporating new spaces**. The primary objective of implementing the Special Plan was to recover degraded or privately used spaces in order to open them up for public use. Since 1994, successive municipal governments have combined the policy of restoring buildings with incorporating new spaces for public use. These actions include the recovery of the Plaza de Rodrigo de Padrón and San Fiz squares as areas for pedestrian use and opening the San Roque allotments, Bonaval Park and Belvís Park as parks for public use, the latter of which is still in the execution phase. Despite the scarcity of land (180 hectares in the historic area), 23 hectares have been allocated for new public parks. More than 80% of the existing 18 hectares have been completed, acquired or are in the execution phase, which makes the historic city a meeting place par excellence.

Finally, as regards the **refurbishment** of homes and other buildings, there was an average investment per home of 20,000 euros, an average grant of 35%, as well as free professional assistance and advice. The reintroduction of traditional materials and the introduction of compatible technologies has had to contend with entrenched habits and strong property interests.

RESULTS

Although this was a long-term project, which is still being implemented, the results of this initial phase, which concentrated a great deal of institutional, financial and managerial effort, can be evaluated:

- **Home improvement** was affordable for residents (20,000 euros per action). Abandonment of the area stopped with a cost-effective, efficient and heritage-friendly alternative.

- The trend towards the systematic destruction of the interiors of historic wooden architecture was reversed. Technologies and crafts were recovered and introduced to use and reuse low-energy materials.

Fig. 1. Map of the Old Town of Santiago de Compostela.

Fig. 2. Rúas das Hortas.

Fig. 3. Rúa do Vilar.

Fig. 4. Rúa Nova.

Fig. 5. Cathedral of Santiago de Compostela.

Fig. 6. Raxoi Palace.

STRATEGIC GOALS AND SPECIFIC GOALS RELATED

SG7 PROMOTE AND ENCOURAGE THE URBAN ECONOMY

7.1 Strive for local productivity, job creation and the dynamisation and diversification of economic activity.

7.2 Promote smart, sustainable, high quality tourism and key sectors of the local economy.

SG2 AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1 Define an urban model that promotes compactness, urban balance and the provision of basic services.

2.2 Ensure functional complexity and diversity of uses.

2.3 Improve the quality and accessibility of public spaces.

2.5 Promote urban regeneration.

2.6 Improve the quality and sustainability of buildings.

SG8 GUARANTEE ACCESS TO HOUSING

8.2 Ensure access to housing, particularly for the most vulnerable groups.

- A field of specialisation and employment emerged for small businesses, professionals and technicians.

- More than 80% of the green corridors were acquired. More than 15 hectares of parks are have either been built or are under construction. Socially and physically run-down spaces have been reintegrated into the city without losing their social and environmental nature.

- The historic city has been reunited with its natural surroundings. Now restored to pedestrian use, the historic centre can now show off its architectural quality to the full.

- A stable **inter-administrative cooperation body** was set up, based on consensus, creating synergies through coordination.

- It substantially improved the quality of the environment and life, with a painstaking urban transformation.

- Compostela has turned its urban regeneration project into a platform for internationalisation based on the value of cultural heritage and the environment for the benefit of citizens and social cohesion.

Finally, in Santiago, it has been possible to regain the trust of inhabitants by bringing them the **Rehabilitation Office**, a small public body at their service, where they can raise problems and find answers.

PROCEDURE

In 1995, the Rehabilitation Office launched the urban recovery strategy outlined in the Special Plan, implementing and coordinating the Restoration Programme, with two clear strategies: firstly, direct, personal, expert attention for users, for the conservation of heritage and for the **improvement of the conditions of their homes**. And secondly, training the actors involved (technicians and companies) to ensure the conservation of the historic city in the future.

The Office provided individuals with the technical assistance required for drawing up projects and managing and supervising construction work, archaeological assistance, the management of all administrative procedures, and contact with construction professionals and companies.

The interventions introduced minimal changes to homes, but all those necessary to ensure that they were fit for current use and to adapt their use to the needs of their users. The aid programmes for commercial premises was aimed at helping to improve installations, security and safety systems, and to adapt the characteristics of the environment.

Since 1997, there has been a small school, the **Restoration Classroom**, linked to the programmes managed by the Rehabilitation Office, which is a twice-yearly, eight-month training course for architects and quantity surveyors who want to take part in restoring the city.

REGULATORY FRAMEWORK

The main tools used were the General Urban Development Plan (first drafted in 1988, finally approved by resolution of the Regional Minister for Regional Planning and Public Works on December 16, 1989) and the Special Plan for the Protection and Restoration of the Historic City (first drafted in 1988 and approved in 1997).

The Municipal Office of the Historic City and Rehabilitation acted in the following areas, as defined in the current General Urban Development Plan:

- PE-1 Special Plan for the Protection and Restoration of the Historic City.
- PE-3 Special Master Plan for the development and restoration of the Way of St. James.
- PE-5 Special plan for improvements to and cleaning up of the River Sarela and its surroundings. (1st tranche).
- PE-5 bis Special plan for improvements to and cleaning up of the River Sarela and its surroundings (2nd tranche).
- PE-8 Special development plan for the University Campus.

ASSESSMENT

LESSONS LEARNED

The restoration of the Old Town in Santiago has extrapolated different experiences. One of them was the set of building restoration **criteria and techniques**, based on the use of low-cost materials. In addition, the link between the environment, restoration and pollution abatement processes was explored in greater depth.

The culture of restoration and urban and social regeneration is increasingly assured. Carrying out a comprehensive urban project with a high impact on the territory means that each action carried out with quality ensures and generates an added layer of credibility and transferability. This knowledge transfer is fundamental in changing the ways in which interventions are carried out in the city.

GOVERNANCE AND TRANSFERABILITY

The urban recovery of the Old Town in Santiago de Compostela was **widely publicised** both nationally and internationally, culminating in receiving the European Urban Planning Award in 1998 from the European Commission and the European Council of Town Planners for the Special Plan for the Protection and Restoration of the Old Town. The city is active in many forums, passing on its experience to other cities.

Several European cities have taken an interest in the specific experiences outlined here. The city took part as a donor partner in a European project as part of the Finestra Programme (Recite II) for sharing experiences of public-private partnerships with the Corsican city of Bastia, the Italian cities of Lecce and Perugia and the Italian region of Umbria. The experience of Compostela was shared through the World Heritage Cities Programme to different cities on the five continents.

SUSTAINABILITY

This project has helped to raise awareness that in order to move towards a more sustainable **urban future**, urban regeneration is highly beneficial. It stops residents leaving and preserves social diversity. The location of large urban parks and prestigious facilities integrates the segregated spaces in the environment.

On an environmental level, it is worth noting the consequences of implementing a **light restoration** method that aims to recover the functionality of any structure that allows it, that has reintroduced construction techniques and methods capable of prolonging the life of buildings, and that has rescued the reversibility of interventions on historic buildings, which should not be the last. Compostela has preserved the free, natural spaces that are connected to the dense city, a closeness to the rural environment, a legacy of the integration of the city into its territory.

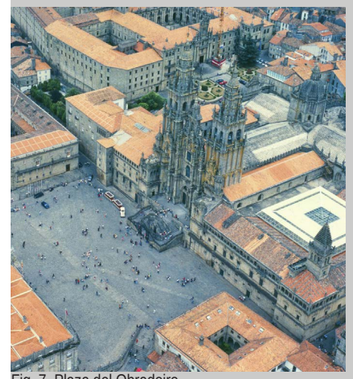


Fig. 7. Plaza del Obradoiro.

Fig. 8. Plaza de las Praterías.

Fig. 9. Church of San Fiz de Solovio.

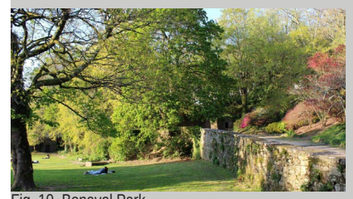


Fig. 10. Bonaval Park.

Fig. 11. Belvis Park.