

Urban renovation project of

Els Rajolars d'Oliva



Authorship: UTE Terrario Arquitectura

Luis Bernardo Vaamonde
Architect COAM col. 23737

Ignacio Burgos González
Architect COAM col. 23749

Ana Méndez Garzo
Architect COAM col. 23739

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PART I

INTERVENTION PROPOSALS

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BLOCK 1: FUNCTIONAL ENVIRONMENT



Els Rajolars productive and social

PROPOSED PROGRAM OF USES

Promote economic activity and meet the social needs of the immediate environment.

Els Rajolars Productive and Social is the strategic line that supports all proposals relating to the functional environment, i.e., the set of new uses to be implemented in the area to carry out its renovation. We find ourselves in an area whose characteristic use defined in the planning is residential, therefore, this proposal of uses will consist of qualifying this residential use according to the opportunities and conditioning factors detected and, on the other hand, defining the most suitable compatible uses for the objectives proposed (equipment, commerce, offices, leisure...). The aforementioned strategic line will be focused on two main objectives:

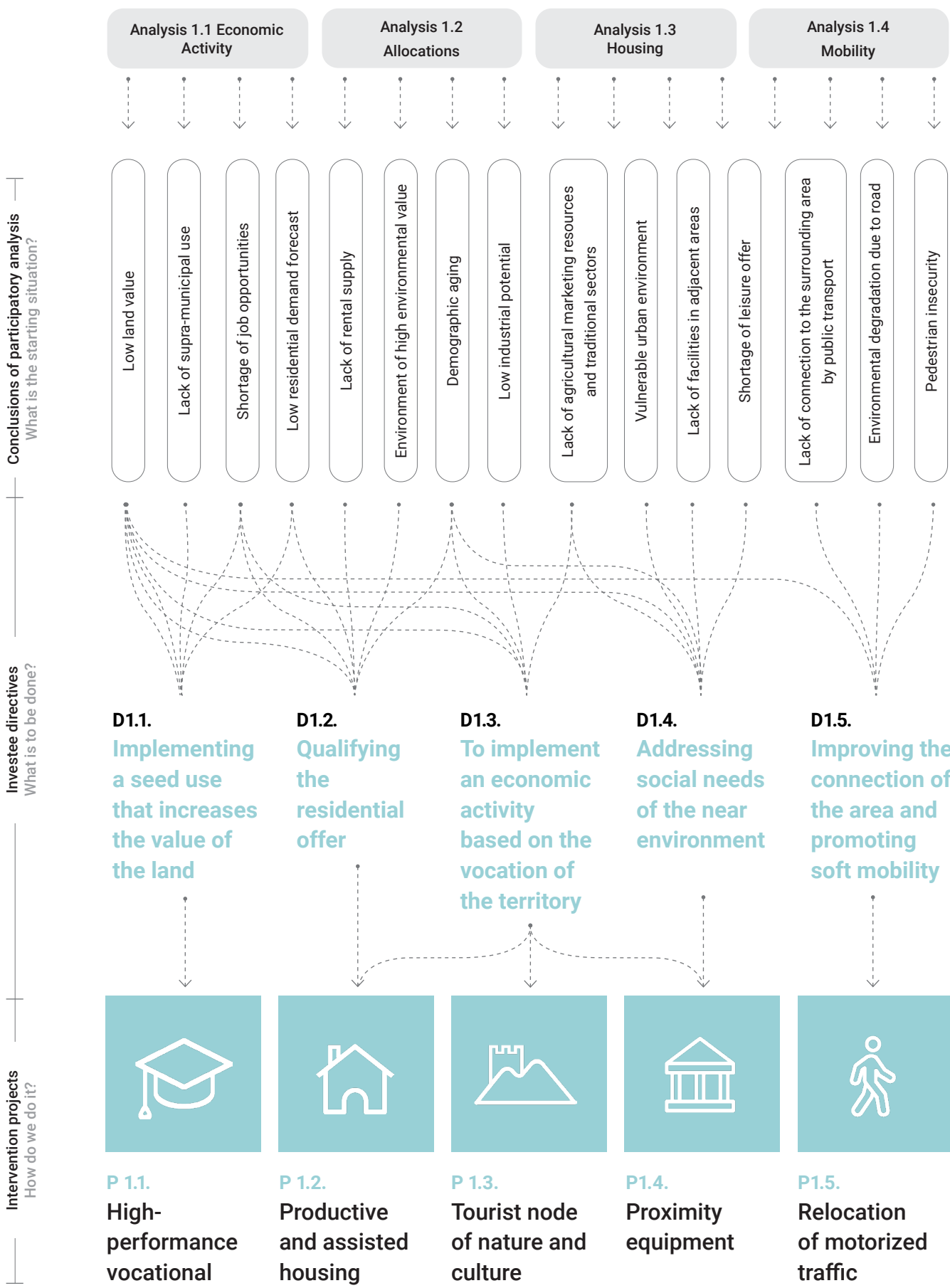
On the one hand, to ensure the presence of uses associated with economic activity, avoiding the creation of a mono-functional residential area and taking advantage of the opportunities offered by the area to become a new economic asset for the municipality. The starting point is the idea that the old relationship between productive and reproductive spaces that existed during the industrial boom of Els Rajolars can be recovered with a renewed character focused on the conciliation of work, the reduction of dependence on transport and quality of life. Encouraging the creation of multifunctional areas including economic activity in residential areas is a common goal of urban planning practice, as it allows for greater efficiency of land use, and facilitates the attraction of new population, private investment and the generation of local employment.

On the other hand, the proposed uses should also contribute to solving the social needs of the area and its immediate surroundings, especially those of the southern neighborhoods of the urban center, whose need for regeneration is recognized by

the Valencian Community¹. Contributing to the improvement of these degraded areas will not only improve the lives of their inhabitants, but will also increase the attractiveness and value of the rest of the neighborhoods in the urban area.

The aim is therefore to promote social cohesion and equity through adequate public facilities and spaces that improve environmental quality and promote interaction, complement the residential offer of Oliva according to the needs detected and expand the network of public health care services, in anticipation of a growing aging population. In addition, special attention should be paid to the environmental degradation caused by the transit of vehicles that currently cross the Paseo de Ladrillares, studying possible alternative routes.

¹ Viewer of Sensitive Urban Spaces of the Valencian Community (VEUS)



INVESTEES DIRECTIVES

D1.1. Implementing a seed use that increases the value of the area

Regulatory and strategic framework:

Territorial Diagnosis of La Safor. 2017. Polytechnic University of Valencia.

Territorial Strategy of the Generalitat Valenciana, Functional Area of La Safor. 2011. Generalitat Valenciana.

Valencian industry strategic plan 2018-2023.

The first of the guidelines that will govern the proposal of uses is based on the validation through the process of analysis of one of the initial needs raised by the Oliva City Council: the implementation of a high quality vocational training center.

The project is a supramunicipal performance that serves as an attractor pole to initiate the rest of the urban renewal process.

On the one hand, there is a real possibility of enhancing the role of Oliva as a functional center complementary to Gandía and Denia for the nearest municipalities and, on the other hand, vocational training adapted to the needs of the economic sectors with greater projection is a need unmet in much of the Spanish territory. This action, ideally accompanied by an improvement of the public transport connection with the nearby municipalities, will serve to attract the first workers, students and residents of the area, favoring the necessary increase in the value of the land that will attract private initiative.

D1.2. Qualifying the residential offer

Regulatory and strategic framework:

DL 1/2021 Law on Spatial Planning, Urbanism and Landscape Development

Territorial Strategy of the Valencian Community, Pla Habitat 20-30, Generalitat Valenciana

Royal Decree 233/2013, of April 5, 2013, which regulates the State Plan for the promotion of housing rental, building rehabilitation and regeneration. urban, 2013-2016

The low population growth forecast for the next 20 years will not be sufficient to serve as an engine for the creation of new urban developments. In a regulatory context that prioritizes urban renewal over land development, it is essential to ensure that the residential offer of Els Rajolars can stand out from that of other municipalities. The analysis carried out makes it clear that this area is the ideal place to attract new housing demand profiles whose needs cannot be satisfied with the built residential park.

With an increasingly aging population, people over 65 years of age may find added value in environments that allow them to maintain a daily activity beyond daily actions and prevent loneliness and generational isolation. On the other hand, itinerant professional profiles linked to teleworking may be attracted by the exceptional environmental and climatic conditions of the area to reside permanently.

D1.3. To implement an economic activity based on the vocation of the territory.

Regulatory and strategic framework:

Territorial Strategy of the Valencian Community, Objective 10, 11

Territorial Strategy of the Valencian Community, Functional Area of La Safor.

Global strategic plan for tourism in the Valencian Community 2010-2020.

As mentioned above, the implementation of uses that promote economic activity is one of the key aspects of the entire proposal. In order to determine the type of activity to be implemented, the capacities of the territory in which we are located must be taken into account.

According to the conclusions of the analysis carried out, one of the sectors with the greatest potential for development is cultural and environmental tourism. La Safor and Marina Alta have a large number of cultural and natural assets that, coordinated under the appropriate global tourism program, can position these regions as a national benchmark for tourism as an alternative to sun and beach.

In this context, Oliva, and more specifically Els Rajolars, have a privileged central position to serve as the nucleus of this tourist program from which to access each of the places to visit, in addition to being able to offer a cultural landscape in itself with the rehabilitation of its industrial heritage.

In addition to tourism, there are also other sectors with potential to favor the economic activity of Els Rajolars. The microclimate with lower humidity, the direct contact with nature and the urban center and the large amount of available land, make Els Rajolars an environment with a very high environmental quality, a quality that, as has been proven in the analysis carried out, has the capacity to attract digital workers with the freedom to choose their place of residence. With the appropriate promotional work and the

Els Rajolars can become a regional pole of attraction for remote digital work.

D1.4. Meeting the needs of the immediate environment

Regulatory and strategic framework:

DL 1/2021 Law on Spatial Planning, Urbanism and Landscape, Annex IV, and XII

Territorial Strategy of the Comunitat Valenciana, Objective 21

In order to respond to the social needs of the immediate surroundings of Els Rajolars detected in the analysis, it will be necessary to dimension the secondary network of facilities in the area to serve part of the population of these neighboring neighborhoods. With this task in mind, we will try to have an adequate amount of green areas and should take into account the specific needs of this area of the municipality to propose a series of public facilities of proximity that can respond to them.

In this way, the area will be able to become a meeting point for the southern area of the municipality, guaranteeing close access to all basic services, reducing the risk of social segregation and improving its urban activity to favor the emergence of local stores and businesses.

D1.5. Improving the connection of the area and promoting soft mobility

Regulatory and strategic framework:

Oliva Sustainable Urban Mobility Plan (PMUS)

Spanish Strategy for Urban and Local Sustainability (EESUL)

DL 1/2021 Law on Spatial Planning, Urbanism and Landscape, Annex IV

Territorial Strategy of the Generalitat Valenciana, Objective 19,

Mobility is the physical support through which all the new uses of the urban renewal of Els Rajolars will run. It is the backbone for residential spaces, economic activities or for the social cohesion of citizens. It will be essential to ensure the proper connection of the area with the various transport networks. The current regional urban mobility model is highly dependent on private vehicles, which, together with a dispersed settlement model, results in a highly inefficient mobility system.

In order to guarantee the environmental quality of the Els Rajolars area, a key aspect for the success of its development, it will be necessary to rethink the role currently played by the Paseo de Ladrillares as the main gateway to the urban area for motorized traffic. A residential development that seeks to differentiate itself from the rest of the available supply is incompatible with the volume of traffic that currently circulates through it. It will therefore be necessary to evaluate possible alternatives to relocate this traffic to roads that do not put the main asset of the area at risk.



INTERVENTION PROPOSAL 1.1

High Performance Vocational Training Center

Related milestones

Investee directives:

D1.1

In line with Participatory Guideline 1.1, the first of the proposed uses to be implemented will be a High Performance Vocational Training Center of supramunicipal scope, with the aim of serving as a driving force for the entire urban transformation. It is proposed to locate this public facility in the Arlandis brickyard, since its state of conservation, available surface area, proximity to the urban area and the compatibility of its spaces make it ideal for the development of this use.

The implementation of this training center will serve to position Oliva as a link between the Safor and Marina Alta, attracting students from both regions. Its supramunicipal projection will be a substantial boost to implement advances in municipal mobility and improve the value chains territory-business.

Procedure

The first step to carry out the FP Center in Els Rajolars is to determine the training offer to be implemented. The town council may seek the support of a commission of experts who, together with the Department of Education, will make this decision. It is also recommended that the mayor's office participate in the Territorial Council for Vocational Training in the La Safor area.

On the other hand, the new development plan (PEPRI) will have to include in its development and use plans a reserve of land for public use in the space that will finally house the training center. Once approved, the project for the reform of the complex, previously approved by the Department of Culture, Education and Science, can be initiated.

At the same time, the City Council must register in the Cooperation Plan and request authorization from the Regional Ministry of Education to implement the Vocational Training Center. It will have to present with it a report as a preliminary project that includes the technical description of the action and the foreseen budget according to the MBE price base. The Project for the Reform of Arlandis as the future VET Center of Els Rajolars will then be put out to public tender together with the execution of the works and the works can begin. In parallel, it is recommended to the city council to take measures to secure

the connectivity of this training center at the supra-municipal level and guarantee its success. Adequate connection by public transport Oliva-Gandia will be essential to achieve this goal.

Eligible cost

To finance the vocational training center in the brickyard of Arlandis, when the building is declared BRL, apply for Order 6/2017 of the Consellería de Cultura to finance conservation works. Apply for the IRTA Plan of the Consellería de Vivienda to finance projects and construction works that promote innovation in the built environment. Finally, the Plan Conviure, Branch 1, of the Consellería de Vivienda to either acquire brickwork or to rehabilitate it as a cultural space. Apply for aid from the Plan Edificant of the Consellería de Educación to finance the construction and equipping of the school center.

Type of tasks to be performed



Grant application



Drafting of regulations



Execution of public works

Estimated eligible cost*

Training center

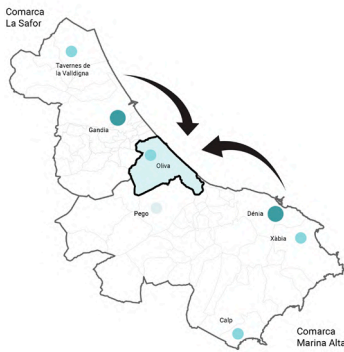
5,2 M€

0,5 M€ 4,7 M€

Total material cost

Eligible cost

*IVE 2023 construction ratios are estimated for new school buildings (1,030/ m2c) applied to 70% of the built-up area of Arlandis



Proposal definition

Oliva as a center of complementary polarity of La Safor and Marina Alta

As recognized by the ETCV, Oliva should house at least one supramunicipal facility that will serve as the backbone of the territory. This facility will help to reinforce the strategic condition of Oliva as a nexus between two regions, between the Gandía and Denia UAI, ceasing to be the end of the province to claim itself as a center of complementary polarity. This facility will help to generate value chains between the business fabric and training between the two regions, introducing a training program in line with the economic activity settled in the territory.

Training program linked to the qualities of the territory

The territorial vocation of La Safor and its business fabric invite the implementation of economic activities based on quality of life, sustainable industry or the sensitive management of the environment and natural heritage. As detected in the analysis, it seems pertinent to consider specialized training in social and health care, in the integrated management of the water cycle or in renewable energies. On the one hand, the Generalitat is planning to set up an integrated green center dedicated to health in the region of La Safor, consolidating it as a pole of reference for socio-health care in the region. On the other hand, water management is consolidated as a national strategic sector, with great relevance in the Valencian Community. Finally, training in renewable energies is proposed as it is a thriving economic sector with a great demand for professionals.

Fig 1. (top) Olive as a core of complementary polarity

Source: own elaboration based on ETCV graphs.

Fig 2. (below). Deductive table of training offer to be implemented

Source: Prepared by the authors with data from the Department of Education, Culture and Sports

What needs and opportunities exist in the territory?



What is the current training offer?

- University
- FP Superior
- FP Media
- FP Basic



Low offer covered with poles of innovation by define

Covered offer with poles of innovation settled in the inside

Low offer covered with poles of innovation by define

Covered offer with the possibility of innovation in nature tourism

Growing demand with poles of innovation by to implement in the Safor

Covered offer with a very large sector consolidated in the region

What training program should be implemented?

Degree in Energy Efficiency and Solar Thermal Energy and Renewables

Hydrological management technician

Degree in Nursing Assistant or in Care of Dependents



Productive and assisted housing

Related milestones

Investee directives:
D1.2

We propose a typology for new residential land that qualifies the offer and highlights it in the environment of the Safor and Marina Alta. Innovative housing, which bring together private housing and an important endowment of common services; relationship, productive or welfare spaces, where users share common areas with the rest of the inhabitants. In this way, possible recreational, work or service needs are satisfied, improving the quality of life of users by offering more services close to the home. Residential models are estimated at 25-35 dwellings/ha, collective housing. This typology will be applied to both private and public housing.

Procedure

The city council should promote Els Rajolars as an innovative residential enclave of Oliva within the municipal and supramunicipal scope in order to attract private investment. The dissemination of the work carried out so far in national fairs such as FRITUR will help to give visibility to the new neighborhood project. On the other hand, with the drafting of the new urban development plan (PEPRI), a lucrative land reserve will be set aside for housing. This percentage will be determined in the Feasibility and Economic Sustainability Study to be presented with the PEPRI. The plots

resulting from the reparcelization project of this plan will be distributed among the owners through the creation of a compensation board. The City Council will provide the new owners with information on plans and agreements to which they may apply in order to develop new residential developments, such as subsidies to expand the housing stock under the State Housing Plan or the IRTA Plan.

Eligible cost




The unique typology proposed in the Master Plan allows both public and private agents to apply for aid related to the promotion of cohousing type housing, supported by the State Plan for Access to Housing 22-25 of MITMA, in programs 6 and 8 (promotion of public housing stock and promotion of cohousing models), as well as the IRTA Plan, of the Regional Ministry of Housing, which promotes applied innovation as a way of promoting the development of cohousing models.

added value to the built environment. In addition, if the buildings to be intervened have the heritage protection of good of local relevance, the Order 6/2017 of the Department of Culture may be requested to finance part of the conservation work.

In order to finance public housing in heritage buildings, the Plan Recuperem Llaras of the Conselleria de Vivienda may be applied for to acquire buildings older than 30 years and subsequently dedicate them to housing for social purposes.

For private agents (in addition to those mentioned above), collaborations may be considered with foundations that promote cooperative housing in transfer of use and with the Federation of Housing Cooperatives and Rehabilitation of the C.V. (FECOVIL).

Type of tasks to be performed

-  Consultations and requests for subsidies
-  Drafting of regulations
-  Execution of public works

Estimated eligible cost*

Collective Housing



*IVE 2023 construction ratios are estimated for new school buildings (1,030/ m2c) applied to 70% of the built-up area of Arlandis

Proposal definition

Private housing + Workspaces and care services

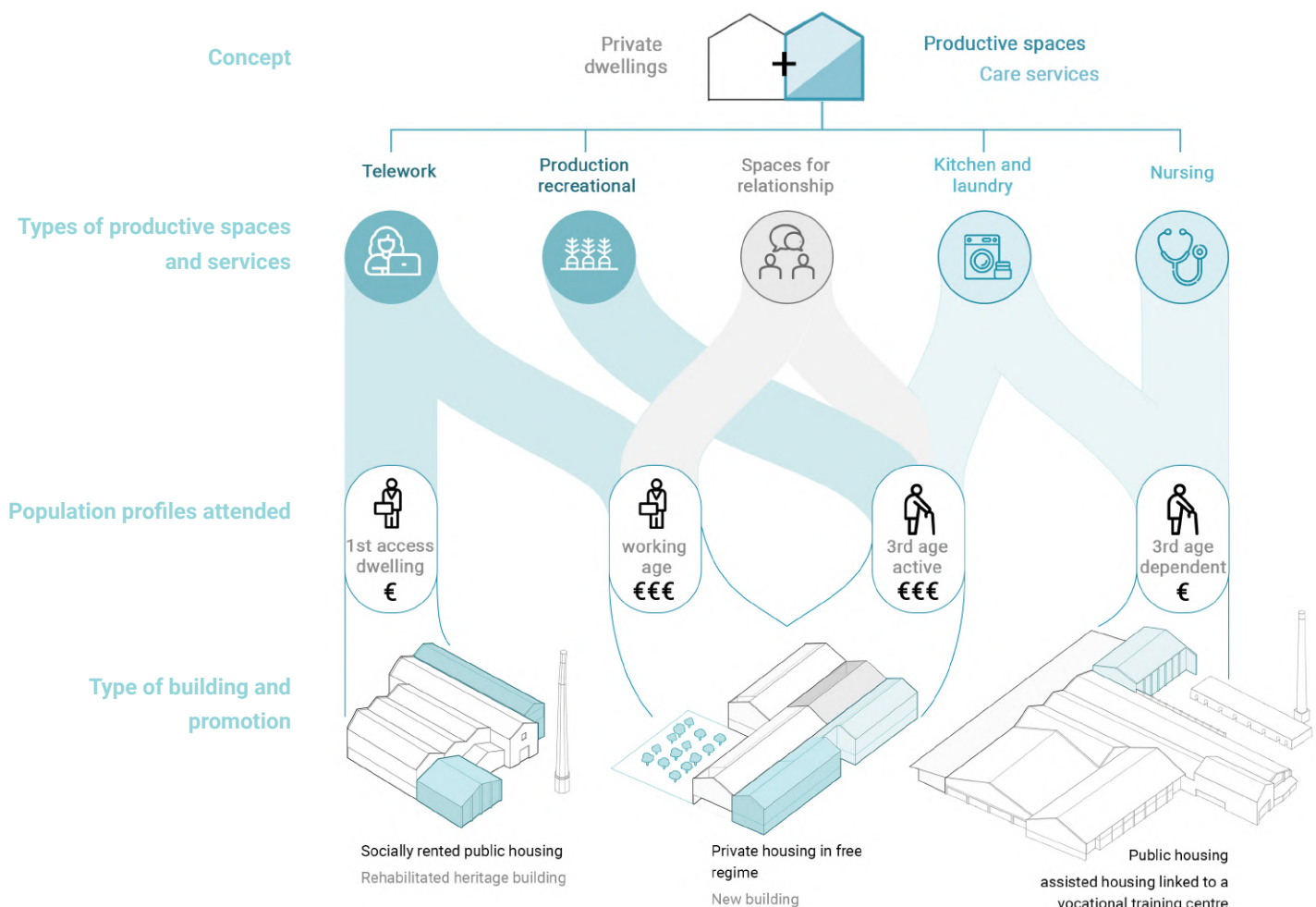
The traditional residential model separates housing from productive and care spaces, a fragmentation that digitalization has made unnecessary for many workers who can exercise their profession from their homes. The Master Plan proposes to combine production and residence in the same type of building, eliminating long commutes. To produce in a residential environment, facilitating social roots.

Regardless of its conception as public or private housing, a residential type will be implemented that promotes productive and welfare spaces as opposed to private uses. Shared spaces will cover at least 30% of the built area, incorporating three types of spaces: relationship spaces (for recreational and physical activities, etc.), production spaces (for teleworking) and care services, whether domestic (shared laundries/kitchens) or medical. As seen in the analysis, it is necessary to qualify the residential offer. The promotion approach will be directed to a specific user, according to his age and economic situation. The types of promotion will be the following: public housing in rotating rental for young people, private housing for young people of working age or in the active third age who find in Els Rajolars a privileged environment to reside, and finally, assisted public housing for the dependent third age.

Fig 3. Productive and assisted housing. Conceptual scheme

Source: Own elaboration

- Productive spaces
- Welfare services
- Housing





INTERVENTION PROPOSAL 1.3.

Nodo de turismo de naturaleza y cultura



Related milestones

Investee directives:
D1.3

As part of the economic activity to be implemented in the area, it is proposed to create a tourism programme linked to the many natural and cultural landmarks located in the area surrounding Oliva. Within this programme, the strategic location of Els Rajolars will allow it to function as a central node from which to easily access all the tourist landmarks to be visited, as well as grouping together all the services associated with this tourist programme and establishing a favourable environment for companies dedicated to this type of active and cultural tourism. On the other hand, the museumisation of the brickworks themselves through a ceramics interpretation centre will disseminate the local ethnological heritage and make Els Rajolars a tourist area of interest in its own right, complementary to the historic quarters of the old town. These actions will reinforce the tourism diversification strategy in an area with great potential for the development of tourism linked to nature and culture. Oliva is a strategic enclave as a connection between the provinces, the coast and the mountainous inland areas, and Els Rajolars is in itself a unique environment, favourable to heritage protection and future tourism promotion.

Procedure

Type of tasks to be performed

-  Consultations and requests for subsidies
-  Drafting of regulations
-  Execution of public works

Incorporate the industrial complex into the Oliva Strategic Tourism Plan, with the drafting of a file containing the contents of this Master Plan. The institutional and municipal promotion of this new enclave will be fundamental.

In order to start up this nature tourism, the next step will be to repair all the paths and tracks that connect Els Rajolars with the surrounding natural environment and which, because they are not properly signposted or are in poor condition, are ignored by the people of Oliva. Thirdly, an interpretation centre should be set up to act as a hub for the project, for which this document proposes "La Salvaora". Based on its condition and the urgent need for action, the town council will have to evaluate the acquisition of the complex, by the most favourable mechanism, presenting a justifying report to the competent Regional Ministry and under the prior report of the General Directorate of Heritage.



Once the acquisition has been approved, aid may be requested to draw up a project for the reform and rehabilitation of the complex, which will also have to be supervised by this body, and in the new development plan (PEPRI), the condition of the Interpretation Centre of Els Rajolars de "La Salvaora" must be included in its development and use plans. The Plan will also include a land reserve for tertiary uses related to tourism: tourist accommodation and associated uses.

Estimated eligible cost*

Museum and interpretation center

7,3 M€

0,6M € 6,7M €

-  Total material cost
-  Eligible cost

**IVE 2023 construction ratios are estimated for new school buildings (1,030/ m2c) applied to 70% of the built-up area of Arlandis*

Eligible cost

Through funding from the InterregSUDOE Program, propose a consortium that encourages the promotion of natural and cultural heritage, according to Axis 5 of the program. To finance the interpretation center in the Salvaora brickyard, when the building is declared BRL, apply for Order 6/2017 of the Consellería de Cultura to finance conservation work. Finally, the Plan Conviure, Branch 1, of the Consellería de Vivienda to rehabilitate it as a cultural space.

Proposal definition

Elaboration of a tourist program: definition of routes and landmarks to be visited

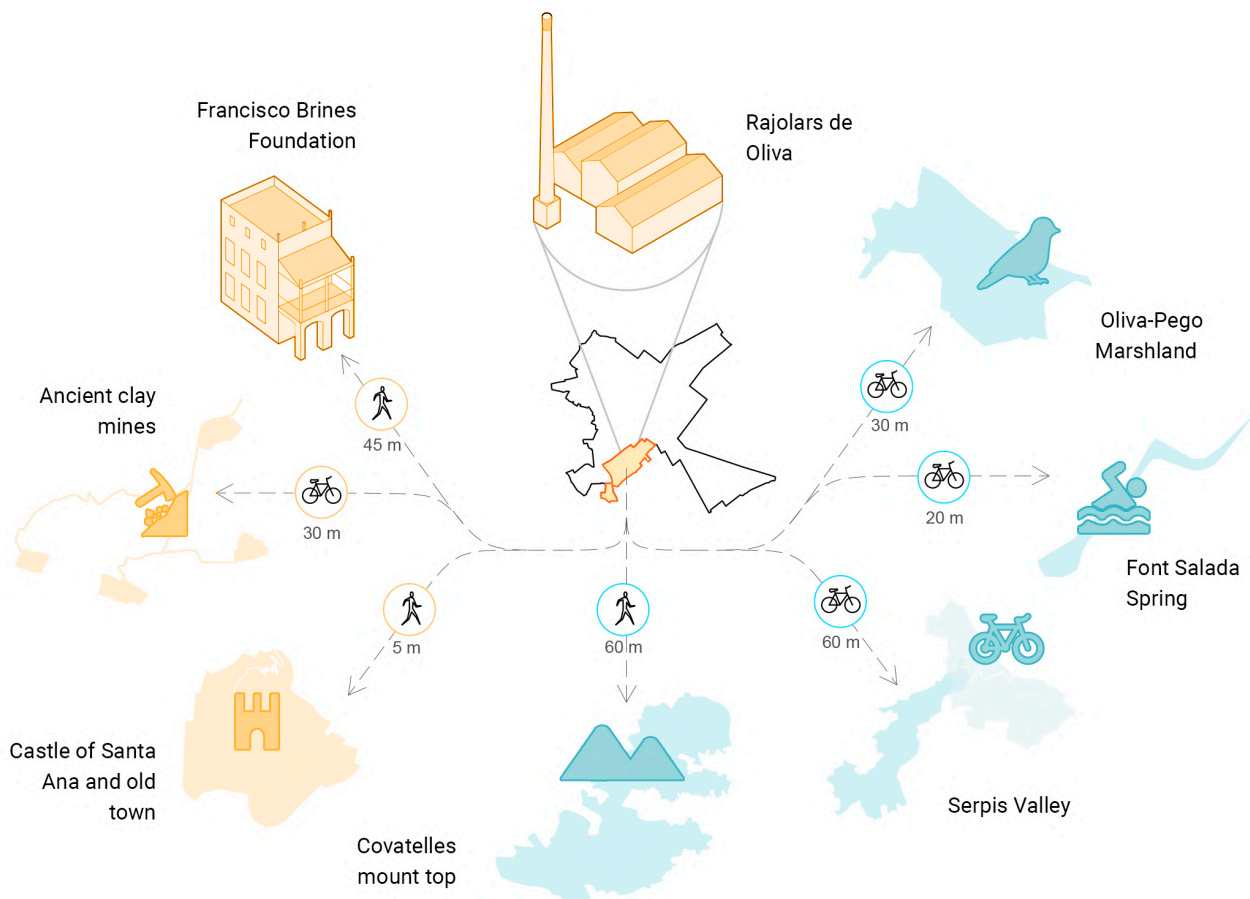
Joint promotion of the cultural and natural landmarks with Els Rajolars as an epicenter of activities and a place of tourist interest in itself.

As we have seen in the Analysis Section, Oliva is located in a territory with a high environmental value. In order to ensure that the program of places to visit adequately reflects these values, it will be important to pay attention to the limits of the physical and natural elements, leaving administrative boundaries in the background. To this end, it will be essential to encourage collaboration between municipalities, favoring the joint promotion of landscape and culture. In this sense, the landmarks proposed below have been selected with a criterion of proximity, including elements located outside the municipality of Oliva. In order to choose those of greatest interest, those previously characterized have been compiled in urban or territorial planning documents, such as the Smart Tourism Plan 2022 of Oliva, the Territorial Action Plan of the Green Infrastructure of the Coast (PATIVEL), Cultural Interest Assets. Among all of them, the antique clay mines of Oliva, the Franciso Brines Foundation or the Castle of Santa Ana and the Old Town of Oliva stand out as cultural landmarks. As for the natural landmarks, the Serpis river valley and its surroundings, the Sierra de la Safor and the Caves of Barx, as well as the Cima de Covatelles, stand out and its hiking trails. At the municipal level, it is worth mentioning the Oliva Marshes and the Font Salada spring. These places should be accessible on foot, by bicycle, or by public transport, so accessibility and safety should be improved, in addition to incorporating rest areas and signage in the existing network of paths.

Fig 4. Main natural and cultural landmarks, with Els Rajolars as a starting point.

Source: Own elaboration

- Cultural landmark
- Natural landmark



Uses and services associated with the tourism program

As a fundamental complement to this tourism program, it is proposed that a series of services be implemented in the area of Els Rajolars to strengthen the area's role as a central node and to enrich the visitor's experience. The tourist uses to be implemented in Els Rajolars are:

Oliva Ceramics Museum and Interpretation Center of the Landscape of La Safor - Marina Alta. Located in the historic brickyard of La Salvaora, it will show the different stages of ceramic production in the municipality, from the earliest Roman remains to the industrial production of the brickyards themselves. This museum can be nourished in the first instance by project 2.1. Informative Archive of the Master Plan, and its content can be exhibited through a permanent museum collection that is the object of funding. In addition, it is recommended to allocate a space reserved for the didactic exhibition of the environmental values of the territory and of the cultural and natural elements that make up the entire tourist program.

Alternative tourist lodging is presented as an attractive option to complement the lodging offer in the region. It will be implemented in the Viuda More- ra brickyard, offering visitors the opportunity to experience a stay in a unique historical environment. The proposed typologies of youth hostels will be specially designed and oriented towards active and nature tourism.



Productive fabric of small companies dedicated to active tourism (hiking, mountain climbing, geocaching, etc.) or cultural tourism. Preferably they will be located in the Gilabert brickyards, due to its strategic location as an exit point to the inland mountains. On the other hand, the caravan parking companies, which are already consolidated in the business fabric of Oliva, will be relocated to this historic site.

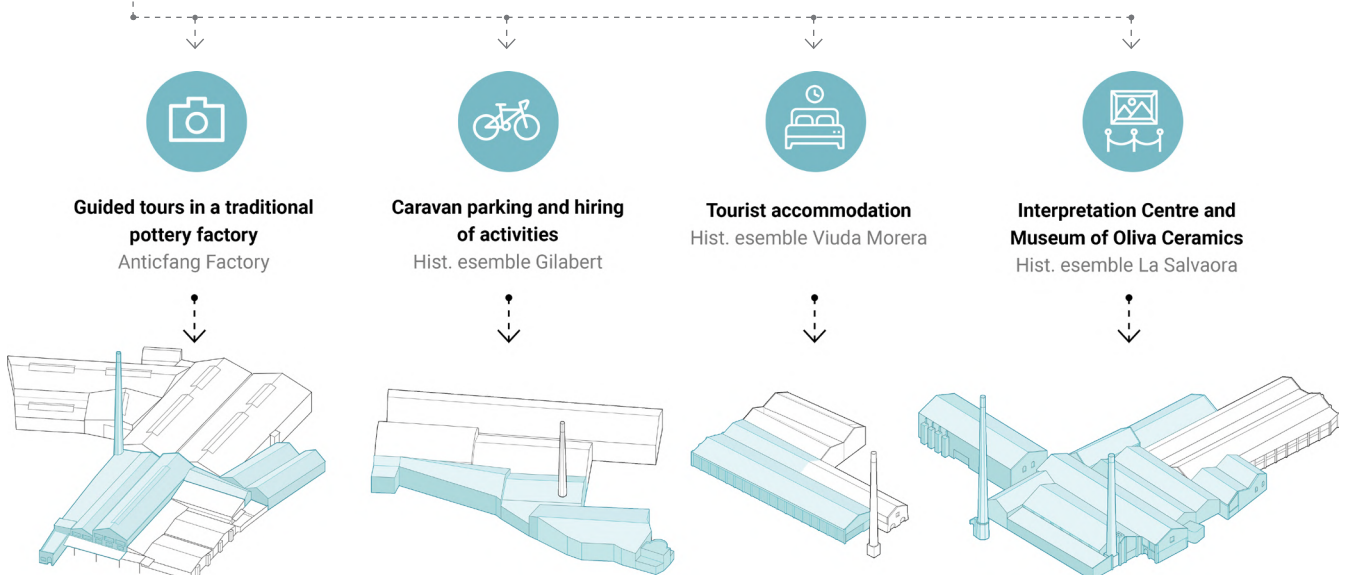
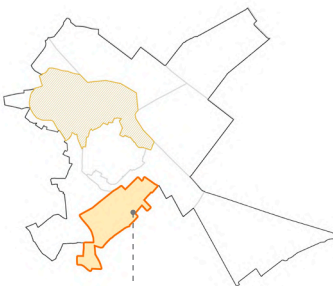
Guided tours of the Anticfang factory and the old clay mines. To be able to witness first-hand the ceramic manufacturing process. These visits will also contribute to the maintenance of the factory and to preserve the ceramic knowledge for future generations, as well as to sponsor the local ceramic product.

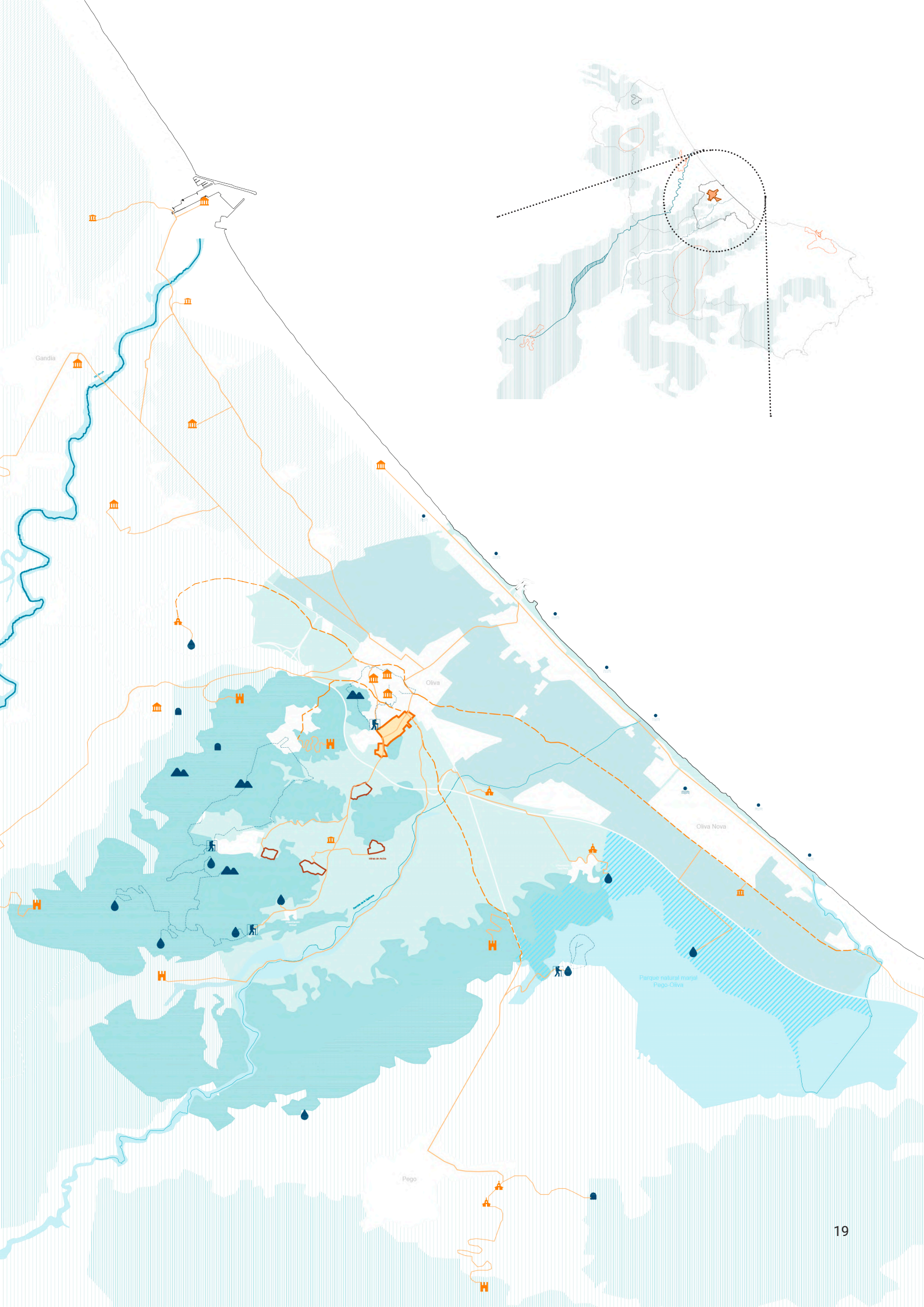
Fig 5. (next page) Supramunicipal tourism map with Els Rajolars as epicenter

Services to be implemented in Els Rajolars associated with the Nature and Culture Tourism Program.

Source: Own elaboration based on Olivaturismo.com data.

-  New tourist area: Rajolars
-  Consolidated tourist areas: Vila Condal, Raval Morisco, GerreriaPinet





Gandia

Oliva

Oliva Nova

Parque natural marial
Pego-Oliva

Pego



Proximity equipment

Related milestones

Investee directives:
D1.4

Els Rajolars is an island detached from the urban core, with no facilities or green areas. The overall structure of Oliva itself increases the marginal character of this area and its surrounding neighborhoods, since the facilities are concentrated in the center and north of the city. The aim is to balance the amount of land destined for public use (both equipment and green areas), incorporating a second pole of attraction of uses and activities. In this sense, the Els Rajolars facilities will be sized to meet both the local demands of the area and its adjacent neighborhoods of Sant Francesc and Ciudad Jardín, as well as the general needs of Oliva.

Procedure

The new Special Plan that organizes the area will be in charge of reserving a percentage of land for public use in which a distinction will be made between plots destined for public facilities and plots destined for public housing.

Until the approval of this plan, the city council will be able to reach temporary transfer agreements with neighbors to set up sports facilities, open-air leisure and meeting spaces, street markets, etc. of a temporary nature on unused plots of land. For this purpose, works must be carried out to eliminate architectural barriers, cleaning and adaptation of these lots.

Once the new zoning has been approved, the city council will have plots of land on which to build public housing that will promote the collectivist models proposed. The management of this public land will be the responsibility of the city council, which will be able to apply for subsidies for its development.


In parallel, it is recommended that the possibility of developing some of the housing lots by private management models through a residential cooperative project involving the residents of Oliva with the support of specialized organizations (EVha, FECOVI) be evaluated.

Eligible cost

The general aid for the construction of sports, leisure or social property spaces corresponds to the application for the Conviure Plan, Branch 1, of the Department of Housing to either acquire brick buildings or to rehabilitate them as social spaces, since these are projects capable of socio-economically revitalizing the environment. If the buildings are publicly owned, apply for MITMA's PIREP Local grants, aimed at financing works in local buildings, with type A (improvement 30% energy efficiency), B (climate contribution 40%) and E (building conservation) actions.

As for more specific aid, for the construction of housing for the elderly or disabled, apply for Program 7 of the State Plan for Access to Housing 22-25 of MITMA. To finance the construction of sports facilities, apply for Order 28/2022 of the Department of Culture.

Type of tasks to be performed

 Consultations and requests for subsidies

 Drafting of regulations

 Execution of public works

Estimated eligible cost*

Dotacional building

4,4 M€

2,2M €

2,2M €

 Total material cost

 Eligible cost

**IVE 2023 construction ratios are estimated for new school buildings (1,030/ m2c) applied to 70% of the built-up area of Arlandis*

Proposal definition

Core of public services for nearby neighborhoods

Through a generous reserve of land for facilities and green areas, it is intended to balance access to personal, work or leisure activities at distances of no more than 15 minutes on foot for the entire population of Oliva.

The new southern core of services consists of the public space itself, whose design of concatenated squares associated with facilities allows the simultaneity of temporary activities, events or fairs with the normal activity of the street. The new facilities will be located in brick buildings with heritage value and their function will be in accordance with current needs. As seen in the analysis, preferably spaces for daily leisure will be implemented in part of the Salvaora brickyard (for example, a gastromarket that supports local farmers and provides a leisure and restaurant alternative). In the Gilabert brickyard, due to its status as a boundary between urban land and the inland mountains, spaces for alternative sports and/or youth (such as music rehearsal spaces, etc.) are proposed. In the event that Anticfang's activity ceases, it is proposed the reconversion of the factory into spaces for social welfare to be defined (such as centers for active aging, sheltered residences or sanitary spaces), taking into account the presumed need for this type of facilities due to the increase in the average age of the population of Oliva in the coming years.

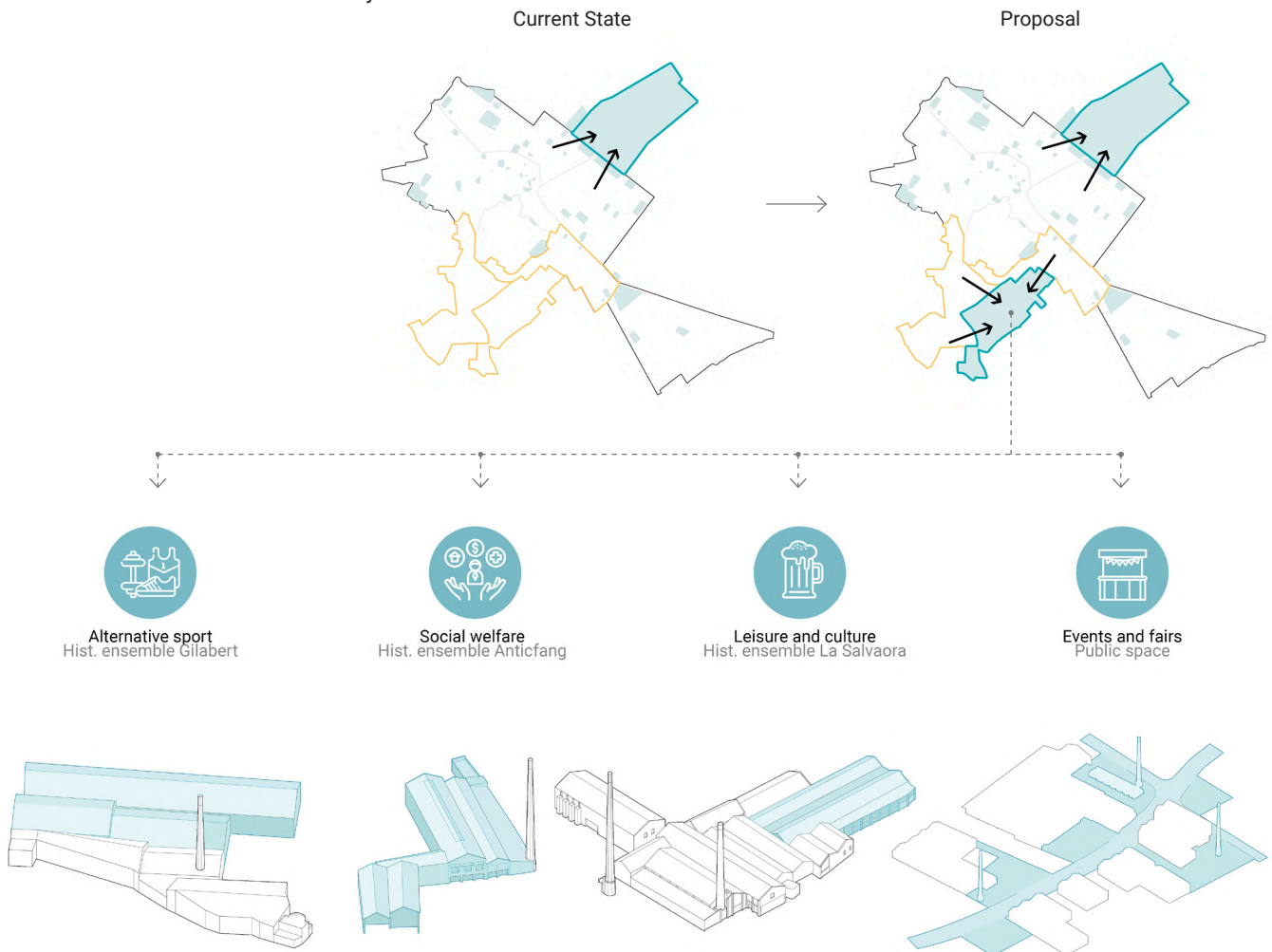
Creation of a new center for public services, capable of making up for the lack of facilities in nearby neighborhoods.

Fig 7 (above). Current state and refurbishment of the endowment nuclei.

Fig 8. Proposed endowment to be implemented

Source: own elaboration according to LOTUP criteria.

- Functional areas with superhabit for housing
- Functional areas with a lack of facilities





INTERVENTION PROPOSAL 1.5.

Relocation of motorized traffic

Related milestones

Investee directives:

D1.5

The following proposal consists of a set of mobility actions within the area and its immediate surroundings to contribute to improving the habitability of the new residential neighborhood by relocating the considerable motorized traffic that currently crosses it. The aim is to make the Paseo de Ladrillares

It is precisely that, a pleasant and recreational promenade for the citizens (as an exit to the inland mountains, for cycling or walking) instead of being a transit space for motorized traffic.

All these actions will be implemented gradually according to a phasing plan that links the changes in mobility with the actual development of the action units and the building and construction works.

Procedure

The new Special Plan that orders Els Rajolars must take into account the mobility strategy for the sizing of roads and sidewalks, following the guidelines set by the LOTUP for urban renewal developments. This document may be accompanied by a traffic study of the modified area to ensure the viability of the proposal. The aforementioned Special Plan must have a favorable report from the Department of Transport for its approval.

Once the new mobility strategy has been approved, along with the approval of the Especial Plan, the first thing that must be done to implement it is to incorporate the urban area of Els Rajolars into Oliva's Sustainable Urban Mobility Plan (PMUS). In this way the neighborhood will be connected to the services proposed at the municipal level such as bike lanes and urban bus lines.


The urbanization works will be carried out prioritizing the main roads: Paseo de Ladrillares, Senda de Lladres, Calle de los Condes Gilabert de Centelles. The execution of bicycle lanes and pedestrian paths must also be completed in coordination with the projected routes outside the area.

Eligible cost

When carrying out this proposal, it will be possible to apply for future calls related to the multiannual Financial Framework 21-27 for the Generalitat Valenciana, which includes among its specific objectives the: RSO2.8. To promote sustainable multimodal urban mobility, as part of the transition towards a zero net carbon economy.

The IDAE's Moves III program may also be applied for to finance the implementation of electric vehicle charging infrastructure in the public car parks proposed in the Master Plan.

Type of tasks to be performed

 Consultations and requests for subsidies

 Drafting of regulations

 Execution of public works

Estimated eligible cost*

80 Mi€

80 Mil €

 Total material cost

 Eligible cost

*IVE 2023 construction ratios are estimated for new school buildings (1,030/ m2c) applied to 70% of the built-up area of Arlandis

Reconfigure the Paseo de Ladrillares section to promote pedestrianization and accessibility.

Fig 9. Role of Els Rajolars in the mobility of the urban area. Current and proposed status.

Source: own elaboration

- Private motorized traffic
- Soft mobility
- Public transport

Proposal definition

Functionality. Pedestrian and cyclist priority vs. automobiles.

At present, the area of Els Rajolars is used as a transit route for automobiles to the historic center or the main highways. It is also not properly connected to the public transport or cycling network, despite being widely used as an exit to the inland mountains.

It is proposed to reinforce its recreational condition, implementing a pedestrian and cycling priority area, which will function as a shuttle to all the cultural, sports and tourist activities offered by the hinterland. In addition, the area will be provided with adequate public transport connections to facilitate the arrival of students to the future training center.

Section type

Define a road section that prioritizes pedestrians over vehicular traffic. A differentiated, accessible, safe, well-lit and environmentally friendly platform that encourages pedestrians to stay and interact with first floor stores. It will have a differentiated cycle lane and only vehicles for loading and unloading and public transport services will be allowed access.

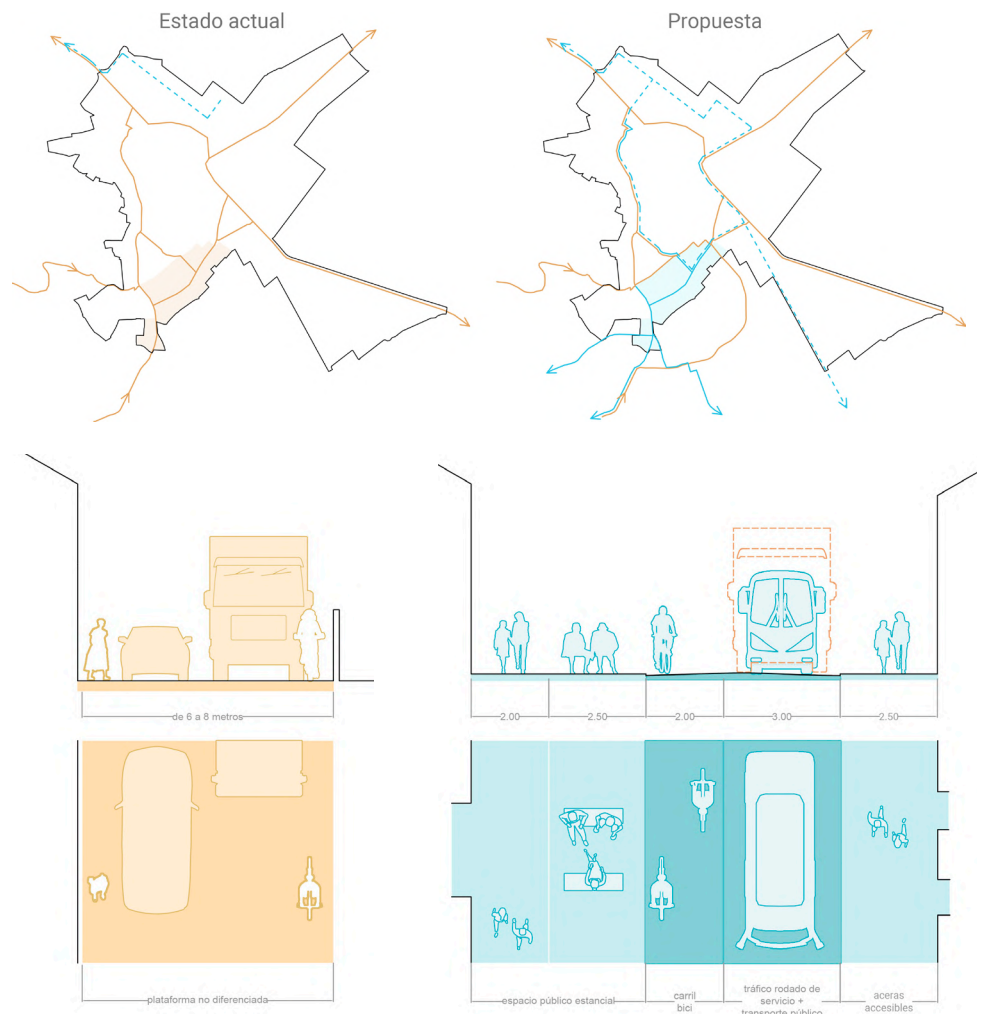


Fig 10. Typical section of Paseo de Ladrillares

Source: Own elaboration

Implementation phasing plan according to building development

The proposed phasing plan will link the changes in road mobility with the actual progress of the building works and the arrival of population to Els Rajolars. To propose a series of intermediate stages, with and without construction works, which at all times define the Paseo de Ladrillares as a pedestrian and cycling axis, and at the same time, make road traffic compatible with the service traffic in the area. The following phasing plan is proposed:

Phase 1: (1) pedestrian priority in the area closest to Paseo de Ladrillares with the ravine. (2) Two-way traffic on Carrer Condes Gilabert to bypass traffic, increasing the width of the road to allow parking of vehicles in the area near the ravine. (3) Construction of a park-and-ride lot for residents and loading and unloading vehicles during established hours. (4) Construction of a parking lot for the ravine.

Phase 2: (1) Opening of the two-way street marked in the PGOU next to the Riuet des Frares. (2) Urbanization works to pedestrianize around Paseo de Ladrillares and Senda dels Lladres. (3) Camí Les Mines with cycling and pedestrian priority, able to make loading and unloading compatible with local industry and access to residents of Ciudad Jardín.

Final Status: When Anticfang ceases its activity, reconvert (1) Camí les Mines and Camí Almuixich streets of cycling and pedestrian priority. The area of the P.D. becomes completely pedestrian, with access for loading and unloading vehicles. (2) Urbanize the section that runs parallel to Sequia Mare two-way and implement (3) park and ride. (4) Incorporation of public transport stops on Paseo de Ladrillares.

Fig 11. Implementation of mobility proposals according to the development of action units

Source: Own elaboration.

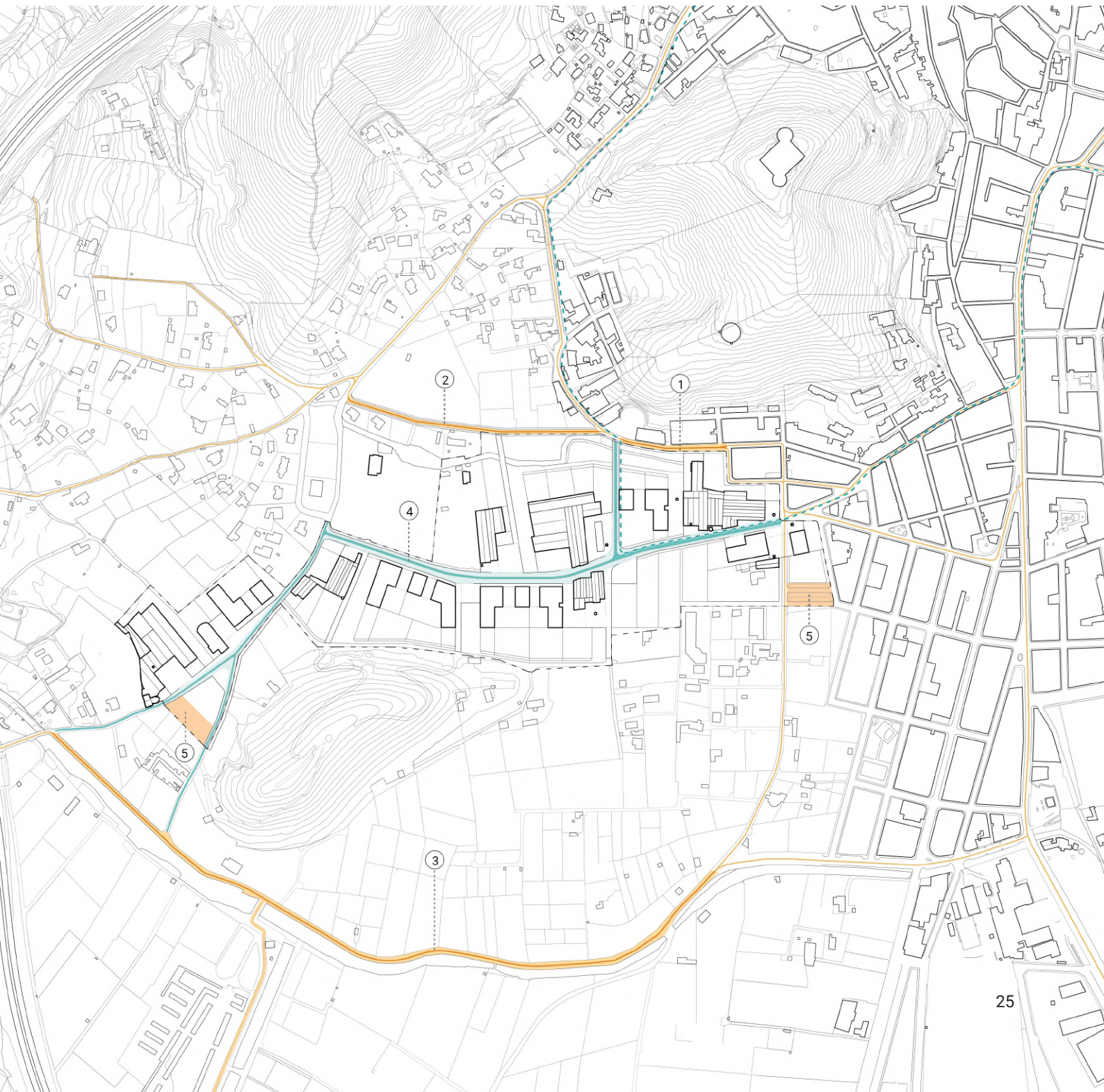


Fig 12. Final state of the rolling mobility

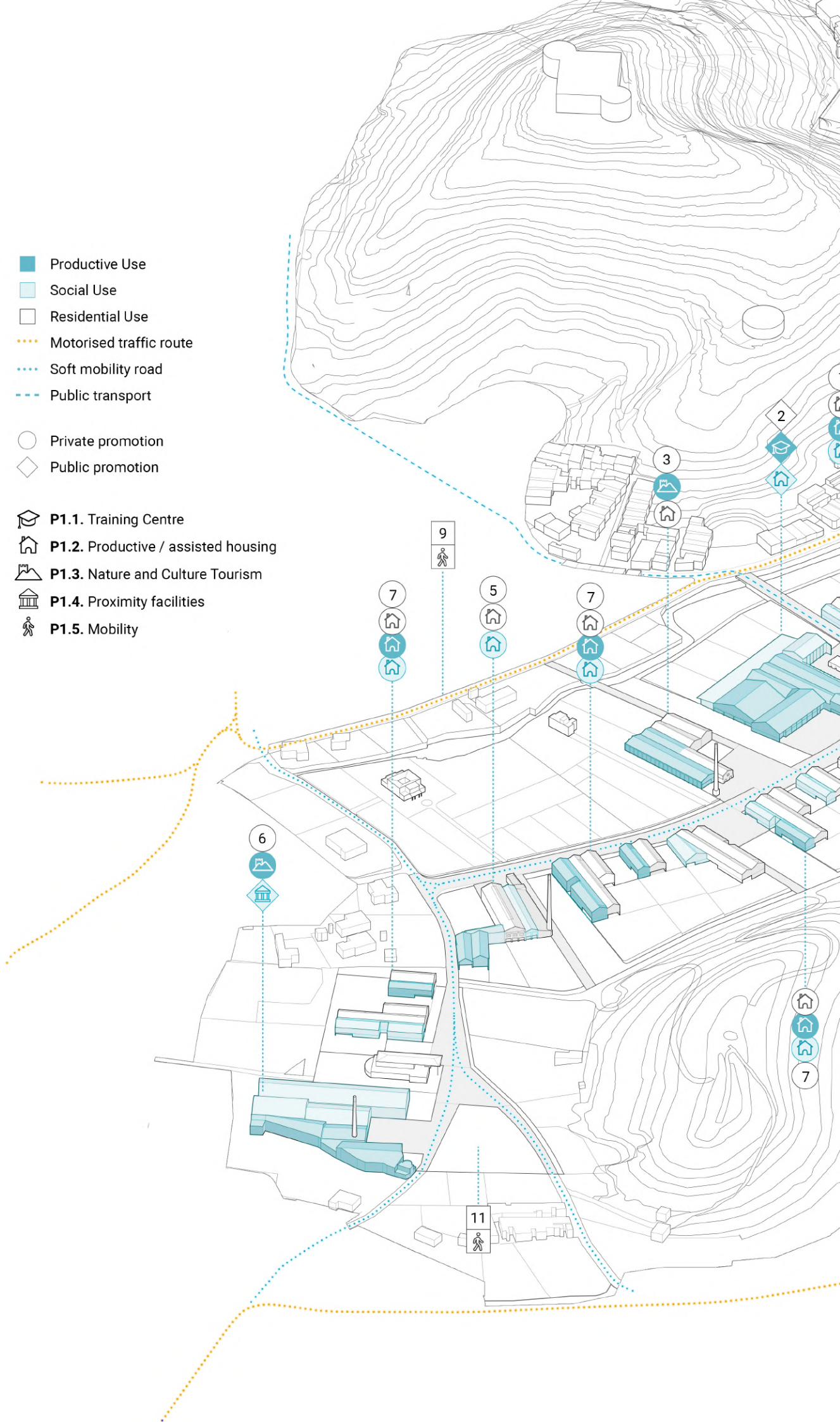
Source: Own elaboration.

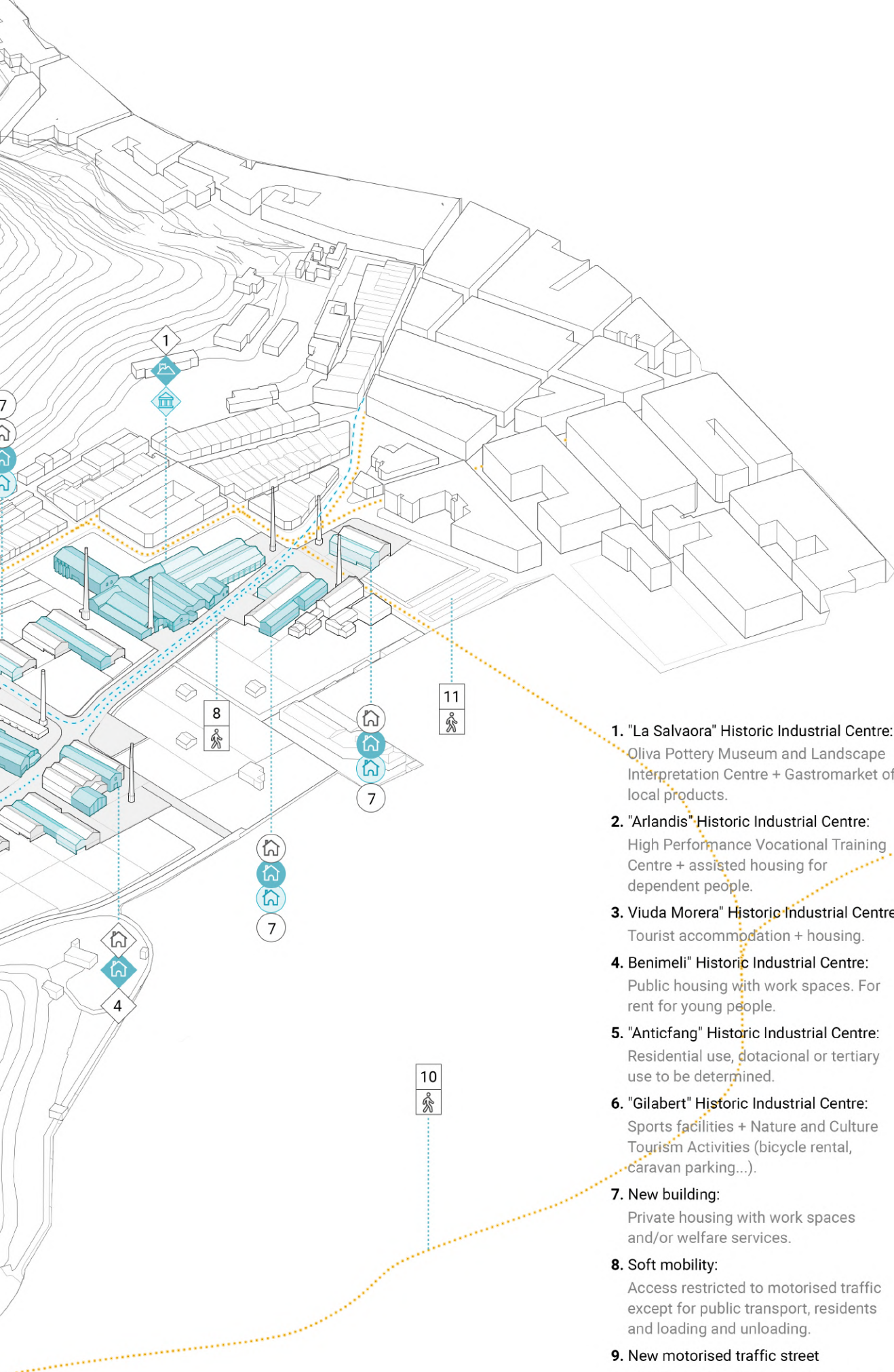
- Motorized traffic route
- Soft mobility roads (access restricted to private vehicles except for loading and unloading)
- - New urban bus line

- ① Widening of section of C/Condes Gilabert de Centelles to allow two-way traffic.
- ② Opening of new street planned in the PGOU between Senda des Lladres and Camí Collado
- ③ Widening of roadway to allow two-way traffic and improve safety conditions
- ④ Dissuasive parking lots



- Productive Use
- Social Use
- Residential Use
- Motorised traffic route
- Soft mobility road
- Public transport
- Private promotion
- Public promotion
- 🎓 P1.1. Training Centre
- 🏠 P1.2. Productive / assisted housing
- 🏞️ P1.3. Nature and Culture Tourism
- 🏛️ P1.4. Proximity facilities
- 🚶 P1.5. Mobility





- 1. "La Salvaora" Historic Industrial Centre:**
Oliva Pottery Museum and Landscape Interpretation Centre + Gastromarket of local products.
- 2. "Arlandis" Historic Industrial Centre:**
High Performance Vocational Training Centre + assisted housing for dependent people.
- 3. Viuda Morera" Historic Industrial Centre:**
Tourist accommodation + housing.
- 4. Benimeli" Historic Industrial Centre:**
Public housing with work spaces. For rent for young people.
- 5. "Anticfang" Historic Industrial Centre:**
Residential use, dotacional or tertiary use to be determined.
- 6. "Gilabert" Historic Industrial Centre:**
Sports facilities + Nature and Culture Tourism Activities (bicycle rental, caravan parking...).
- 7. New building:**
Private housing with work spaces and/or welfare services.
- 8. Soft mobility:**
Access restricted to motorised traffic except for public transport, residents and loading and unloading.
- 9. New motorised traffic street**
- 10. Widening of existing road for two-way traffic**
- 11. Dissuasive parking**







Els Rajolars structured and recognisable

ARCHITECTURE AND URBAN SPACE PROPOSAL

Reordering the urban space of the area, articulating it with its surroundings and recovering the Cultural Landscape of Els Rajolars through its historical constructions.

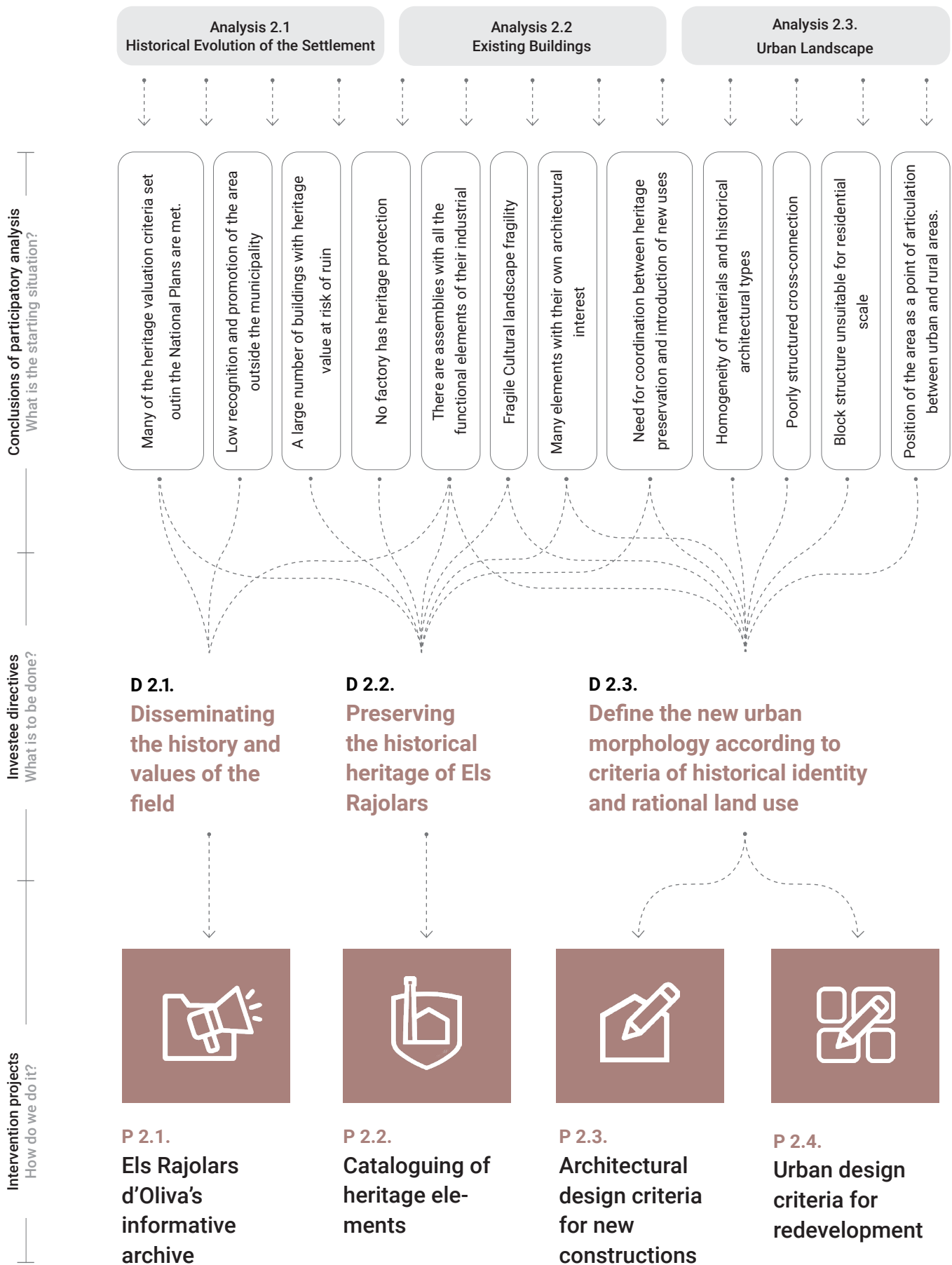
Els Rajolars Structured and Recognisable is the strategic line of action that structures all the proposals relating to the built environment, that is to say, the set of urban spaces and buildings that will make up the habitable environment of Els Rajolars. This strategy is based in turn on two major general objectives:

On the one hand, to structure the area through a new, clear and legible urban morphology, defining a suitable composition of buildings, roads and public spaces that will provide the neighbourhood with the necessary spatial quality. To this end, general design criteria will be defined that are easy to apply, sufficiently rigorous to fulfil the objectives but, at the same time, sufficiently flexible to allow for a certain variety of final solutions.

This new morphology must not only be clear and legible, but must also resolve several of the needs raised, such as functional integration with the immediate surroundings through secondary roads that allow direct and intuitive circulation, social interaction between neighbours through the creation of pleasant places for meeting and recreation, and the necessary improvement of the aesthetic and environmental quality of the area to favour the attraction of new population.

The second objective is to enhance the cultural identity of the area through the conservation, rehabilitation and integration into the urban morphology of the historic buildings. To this end, heritage protection measures will be proposed to guarantee the appropriate conservation of these constructions, and both urban and architectural design criteria will be established to condition the new constructions to be built in the area in order to enhance and reclaim the Industrial Cultural Landscape of Els Rajolars, restoring it from the degradation suffered over the years.

The conservation of this cultural identity will allow the preservation of testimonies of local history that serve as spaces of collective memory, strengthening the community's sense of belonging and transmitting to future generations a cultural legacy of high value. In addition, these historic buildings can become economic assets for the municipality, boosting cultural tourism and increasing the attractiveness of nearby urban areas for private investment and local entrepreneurship.



INVESTEE DIRECTIVES

D 2.1. Disseminating the history and values of the field

Policy and strategic framework:

Law 4/98, of 11 June, on Valencian Cultural Heritage.

Territorial Strategy of the Comunitat Valenciana: Objective 13 Cultural Heritage, Objective 11 Landscape. National Cultural Landscape Plan.

The high historical and cultural interest present in the area of Els Rajolars, reflected in the participation process, can be used as a valuable tool to promote the process of urban renewal of the area, and can function as one of the bases of the economic activity to be implemented, facilitating institutional funding and the promotion of the area as a whole.

To do this, it will be necessary to carry out a dissemination work from the public administration that will require the development of an orderly documentation base and a planning of the communication tasks to be carried out. The development of this Master Plan will allow progress to be made in both tasks in order to make these values reach beyond the limits of the municipality, appealing to all agents in society and to all administrative bodies.

D 2.2. Preserving the historical heritage of Els Rajolars

Policy and strategic framework:

Law 16/85 on Spanish Historical Heritage.

Law 5/2014, of 25 July, on Spatial Planning, Urban Planning and Landscape of the CV.

Law 4/98, of 11 June, on Valencian Cultural Heritage.

D 62/2011, of 20 May, of the Consell, on the Declaration and Regime of protection of assets of local relevance.

Territorial Strategy of the Comunitat Valenciana: Objective 13 Cultural Heritage, Objective 11 Landscape.

National Heritage Plan Industrial. National Cultural Landscape Plan

As has been seen in the previous analyses, there are a large number of elements with potential historical and cultural value within the area. However, to date, only the brick chimneys are protected by regulations at a singular level. The protection of these elements, although necessary, is not sufficient to guarantee the correct preservation of all the historical and cultural values present in the area, the complexity of which must be approached from an understanding of the industrial settlement as a whole and its relationship with its physical, natural and urban environment.

In the case of the factory buildings, this lack of regulatory protection is compounded by the problem of abandonment that affects most of them, causing their state of deterioration to worsen progressively. In recent years, torrential rains and the strong winds common at certain times of the year have irreparably damaged a large part of this heritage, causing components of great importance such as the drying sheds of the “La Salvaora” complex to disappear. On the other hand, the lack of protection also means that the warehouses that are currently in use as warehouses or small workshops are exposed to interventions by the owners that can also cause damage or alterations to important components.

It is therefore necessary to undertake a regulatory drafting process that will allow, first and foremost and as a matter of urgency, the implementation of the measures to promote the protection of cultural heritage provided for in the law so that the structural consolidation, selective demolition and clearing of rubble from the buildings that make up the Els Rajolars complex can be undertaken as soon as possible. This protection should be articulated through the inclusion in the catalogue of protected assets and spaces of the municipality of Oliva of the Els Rajolars complex, in the degree and category considered most appropriate according to the information gathered in the present analysis, the reports and documents drawn up by other technicians and the criteria of the Oliva Town Council and any other agent whose participation it considers appropriate.

D 2.3. Define the new urban morphology according to criteria of historical identity and rational land use.

Policy and strategic framework:

Law 5/2014, of 25 July, on Spatial Planning, Urban Planning and Landscape of the Comunitat de València.

Valenciana

Law 16/85 on Historical Heritage co English

Law 4/98, of 11 June, on the Valencian Cultural Heritage

Territorial Strategy of the Valencian Co- munitat: Objective 11

Landscape

National Heritage Plan

Industrial National Cultural

Landscape Plan

Once the protection of the historic elements has been guaranteed, it will be necessary to consider the new constructions to be introduced in the area in order to complete the definition of the urban model proposed as the goal of the renovation of Els Rajolars. All the efforts invested in strengthening the historic identity may end up being blurred if it is not possible to guarantee that the new architecture to be introduced is designed on the basis of these values, in such a way that its presence contributes to complementing and highlighting them, ceding perceptive prominence to the original constructions and filling in the undesirable urban gaps.

It therefore seems logical that the main conditioning factor for these new buildings should be their integration into the landscape of the Els Rajolars Industrial Cultural Landscape, the definition of which, explored in the corresponding analysis, should be articulated through the regulatory instruments provided for this purpose. This will condition issues such as the materials to be used, typology, heights, plot conditions, etc.

However, there are also other conditions that are less particular to this specific area but which should also be unavoidable for the architecture to be considered in any new development. On the one hand, the suitability of the proposed residential programme must be taken into account, both in its relationship with the conceptual framework of the productive city and in the particular issues detected in the analysis, such as the relevance of housing associated with care services or the importance of a direct relationship with the exterior without losing the compactness and minimum density required for the rational occupation of the land. On the other hand, attention must also be paid to the necessary environmental awareness of architecture, establishing criteria to minimise the energy demand of the new buildings to be constructed.

In parallel to the above issues, one of the fundamental lines of work of the entire Master Plan must be the reordering of the urban structure of the area, taking into account both its internal spatial composition and its articulation with the neighbouring areas of Ciudad Jardín and Carrasca. At present, the structure of these areas shows numerous deficiencies, given that they are areas that were developed in an informal manner without any planning, as a result of the addition of isolated buildings on the outskirts of the historic rural roads. This scattered and disorderly growth has resulted in a large area that forms the entire southern edge of the urban area.

The urban renewal of Els Rajolars offers the opportunity to correct this situation. The necessary specific actions at the points of articulation and the modification of the grid of full and empty spaces in the area should be undertaken with a double objective: on the one hand, to create a new grid of public open spaces that can house a network of quality green areas and a road network suitable for achieving the mobility objectives proposed and, on the other hand, to generate a built-up mass that integrates and enhances

the presence of the heritage elements to be maintained and that adequately defines the spatial limits of the area and the southern boundary of the city.



Els Rajolars de Oliva's Archive of Information

Related milestones:

Investee directives:

D2.1

To ensure the correct implementation of all the dissemination tasks proposed in the Communication Plan, it will be necessary for the Town Council to undertake the prior task of compiling, ordering and identifying all the available graphic material that can be used to communicate the different values present in the area, ranging from historical and current images to the documentation developed in the Master Plan itself. This compilation of material, which may take the form of digital images hosted on the Town Council's servers, will give rise to the Els Rajolars d'Oliva Information Archive.

Once this archive has been created, it will be possible to undertake any dissemination action in an agile and efficient manner. Among these actions, it is proposed to create a permanent museum collection that will allow access to grants to create an exhibition space in one of the buildings in the area that can cover the entire history of ceramic activity in the municipality.

Procedure

In order to carry out this proposed intervention, the city council will need to designate a person in charge of the management of this archive, who will have to carry out the following tasks: locate the documents on the municipal servers, identify the content of the images, locate the authors of the images to obtain their consent for their use, manage the reception and classification of future graphic documents that the city council may receive, and make the existence and structure of the archive known to the staff in charge of municipal communication.

The material collected in the historical archive can be presented to the Department of Culture, Education and Science in order to obtain recognition as a permanent museum collection. In this way, it will be possible to apply for grants to disseminate the content of the archive and create a space in accordance with its exhibition needs. At the same time, in order to complete the body of information on the history of Els Rajolars, it is recommended that consideration be given to contracting a historical study of the industrial complex to serve as a context for the work collected in the archive.

Eligible cost

The city council can pay for fixed or travelling exhibitions in municipal spaces with the documentation provided by the P.D. with its own funds. The aim is for the Archive to gather a sufficient amount of documents and material goods enough to create a permanent museum collection recognised by the Generalitat Valenciana.

Once this objective has been met, two sources of funding can be used: firstly, to apply for Order 28/2017 of the Regional Ministry of Culture to equip or renovate exhibition spaces of permanent museum collections, which can be applied for by local councils, associations or foundations; secondly, grants can be applied for from "L'ETNO Museo Valencia Et-nología" to promote cultural activities and/or non-inventoried activities of popular culture.

Type of tasks to be carried out:

Internal management

Institutional promotion

Estimated eligible cost*

Permanent museum collection

139mil €

111mil €

28mil €

Total material cost

Eligible cost

**The cost of material goods to equip a permanent museum collection is estimated. Similar tenders from the last 3 years in the Valencian Community are taken as a reference.*

The Information Archive will form an orderly collection of texts and quality graphic documentation that can serve as a direct resource for any information action that is carried out.

Definition of the proposal

Content categorisation

In order to facilitate the management of this content, it is proposed to establish a series of categories related to each of the topics to be disseminated. To this end, it will be necessary to first establish the fundamental lines of the communication strategy, whether these are those proposed by the Communication Plan or others that are considered more appropriate. As a starting point, the following categories are proposed, differentiating between cultural and environmental values and historical, present and future status:



Fig 1. Categories of informative content.

Source: own elaboration

Multi-format documents

Other texts and images should be stored and produced with the communication platforms and events they are to serve as a resource in mind, which means paying attention to the format (paper or digital, size, resolution, format, etc.) and, above all, to the target audience to which each dissemination action is addressed. Given that the text and images to be used will not be the same for a social media campaign as for an application for public funding or the development of a tourism programme, it will be necessary to develop several versions of each resource in order to achieve effective communication.

Fig 2. Examples of images to be included in the informative archive.

Source: various authors (see Analysis 2.1.)





Cataloguing of heritage elements

Related milestones:

Investee directives:

D2.2

To ensure the preservation and future rehabilitation of all the historical elements of Els Rajolars, it will be necessary to include in the Municipal Catalogue of Protected Assets and Spaces all the elements that contain historical and cultural qualities, from the constructions that bore witness to the human activity that took place to the landscape elements that represent the territory in which this settlement is located.

This proposal defines the degree of protection that these elements should have, based on the criteria set out in the Analysis Document. It should be borne in mind that, although the work carried out in this Master Plan is sufficient to identify the elements to be protected and to determine a general structure of protection, it will be necessary to carry out more detailed studies of each of the industrial complexes in order to regulate the specific interventions on each of their components.

Procedure

The formalisation of the heritage protection of the elements set out in this proposal will be carried out through the extension of the Municipal Catalogue of Protected Assets and Spaces by the City Council¹. To this end, it is recommended that a study similar to the one carried out for the La Salvaora industrial complex be contracted which can set out in detail the most appropriate protection regime for each of the existing components.



Once this catalogue has been drawn up, the department responsible for culture will assess the suitability of the proposed elements to obtain protection as an asset of local relevance. After approval, these assets will be registered in the second section of the General Inventory of Valencian Cultural Heritage, after which demolition will be prohibited and the danger of destruction of the asset will be a cause for expropriation².

The future Special Plan that manages the area will have to adopt this BRL protection of the historic heritage sites as part of its planning, as well as its applicable protection regulations. The approval of this plan will be conditioned by a favourable Environmental and Territorial Strategic Assessment, which will have to do with this heritage protection, and by the Prior Report of the Regional Ministry of Culture, Education and Science.

Eligible cost

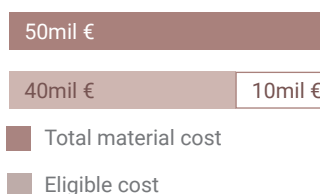
In the event that it is necessary to introduce a modification to the Municipal Catalogue of Protected Assets and Spaces, it is possible to apply for Order 21/2018 of the Regional Ministry of Culture, which finances the preparation of the Cultural Section of this catalogue. Once the declaration of the different heritage elements has been approved, Order 6/2017 of the Regional Ministry of Culture may be applied for to finance part of the conservation and protection works of the assets of local relevance.

Type of tasks to be performed:

-  Consultations and grants
-  Regulatory drafting

Estimated eligible *

Drafting of a Protection Catalogue



*The cost of material goods to equip a permanent museum collection is estimated. Similar tenders from the last 3 years in the Valencian Community are taken as a reference.

1 Law 4/1998 of the Valencian Cultural Heritage, Article 47

2 Law 4/1998 on Valencian Cultural Heritage, Article 20, Article 21





Definition of the proposal

Cataloguing structure

A cataloguing structure is proposed based on the historical and landscape study carried out, the applicable regulatory and strategic framework and the overall objectives of the area. The elements to be protected are divided into the following categories³ :

Fig 3. Propuesta de elementos patrimoniales a proteger.

Fuente: elaboración propia

-  Bienes de Relevancia Local (BRL)
-  Bienes Catalogados (BC)
-  Unidad de Paisaje Els Rajolars
-  Recurso paisaje huertas
-  Recurso paisaje montes
-  Recurso paisaje minas

- Assets of Local Relevance of ethnological interest. This category will be assigned to each of the historic industrial complexes. It is considered essential to keep all the components of these complexes together in their respective catalogue file, without dissociating each chimney from the rest of its associated elements.
- Listed Assets. This category will be assigned to the rest of the historical constructions which, without belonging to the industrial complex, are related to its activity or to other historical aspects of the area.
- Landscape units and resources. This category will be assigned to the different physical and natural elements that make up the environment of the industrial settlement, on the understanding that the cultural landscape in question is inseparable from its territory.

³ Categories according to Law 4/1998, on Valencian Cultural Heritage and Law 5/2014, of 25 July, on Spatial Planning, Town Planning and Landscape, of the Valencian Community.



Cultural Section - Assets of Local Relevance (BRLs): Industrial Ensembles

It is proposed to catalogue the historic industrial sites identified in the Analyses.

2.1 and 2.2 as an Asset of Local Relevance of ethnographic interest, in the cultural section of the Municipal Catalogue. As has been mentioned, all the components of each factory will be kept within the same catalogue file, creating a file for each factory complex to enable their protection and rehabilitation to be managed globally, avoiding the segregation of the chimneys as differentiated elements.

The proposed protection regime will seek to be sufficiently strict to preserve all the historic values and, at the same time, sufficiently flexible to facilitate the required urban and architectural transformation: a functional and integrated urban area of predominantly residential use, avoiding the creation of a fossilised cultural island whose sustainability would be difficult to sustain.

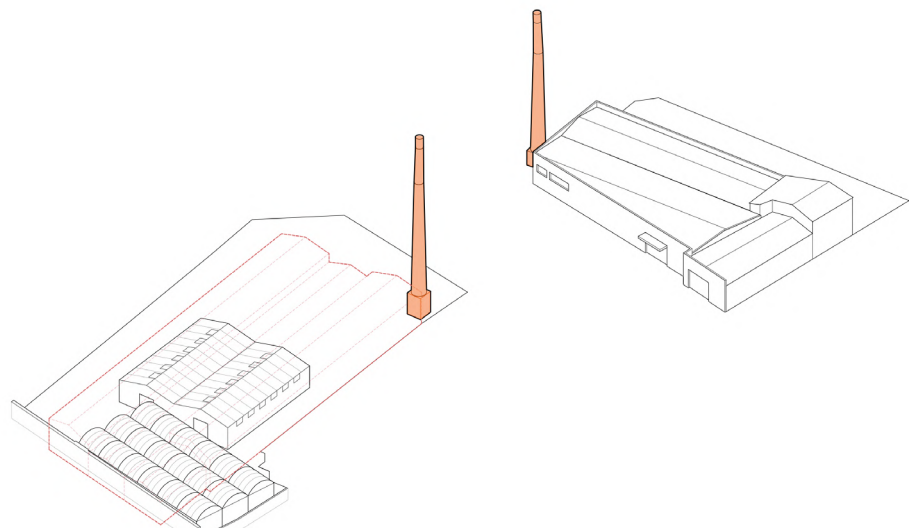
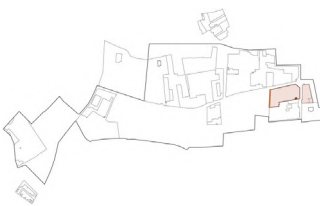
The different industrial complexes in the area are summarised below, identifying in each case the functional components of their industrial activity:

Fig 4. Historic buildings proposed as Assets of Local Significance

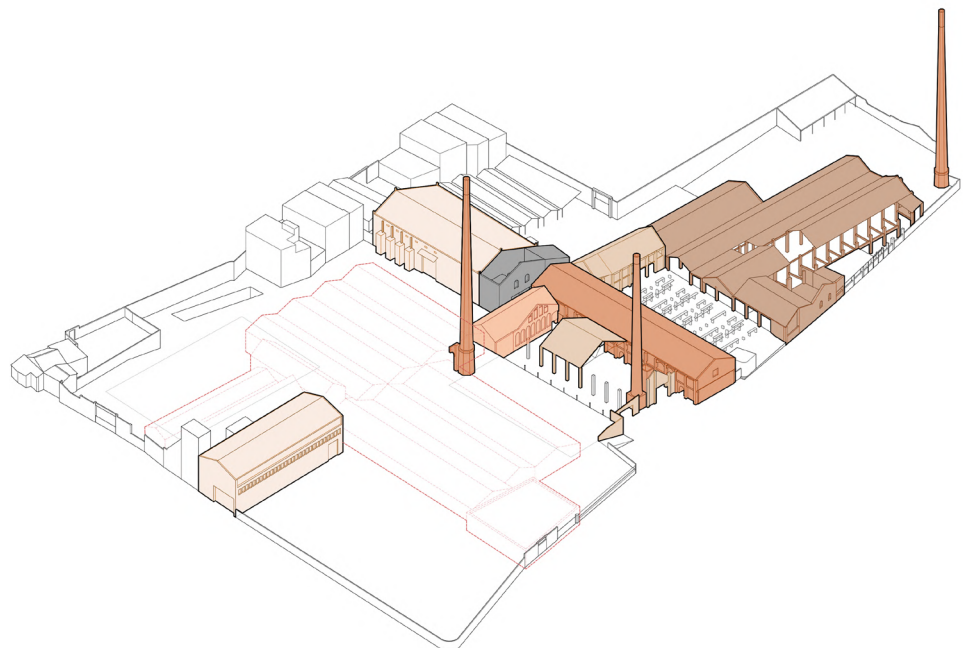
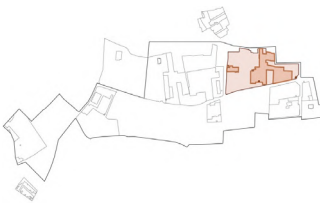
Source: own elaboration.

- Land reception
- Drying shed
- Storage of finished product
- Forced drying
- Hoffman furnace and chimney
- Engine room

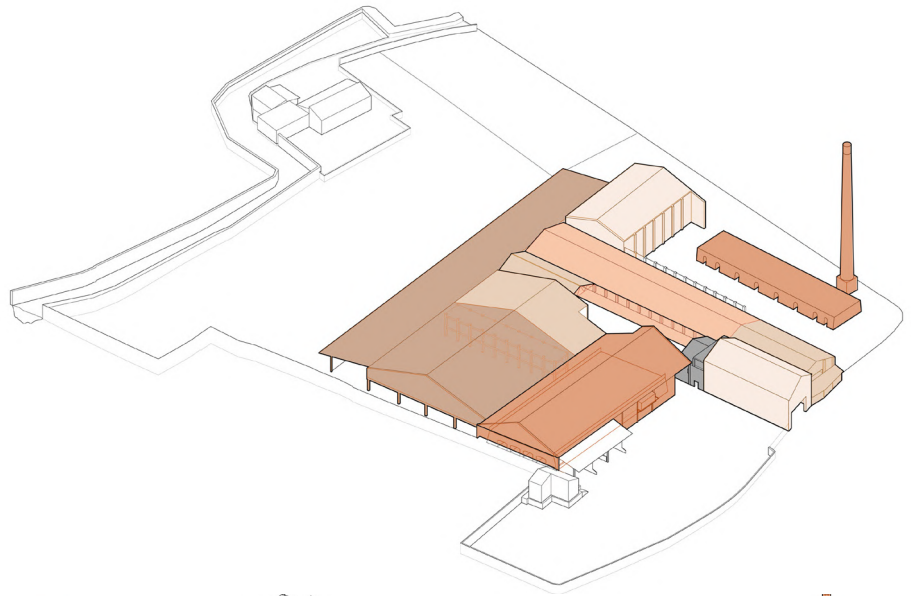
BRL 1 y 2 Historic Industrial Complex "La Tubera" and "Santa Ana".



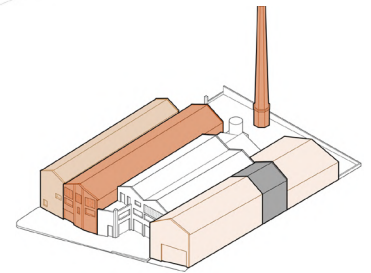
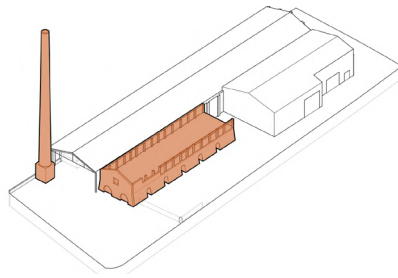
BRL 3 Historic Industrial Complex "La Salvaora".



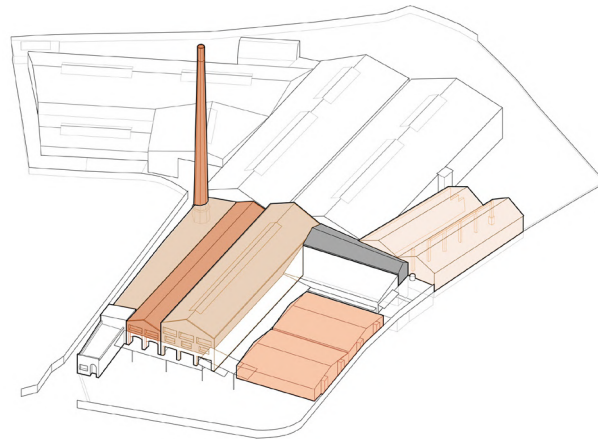
BRL 4
"Arlandis" Historic Industrial Complex



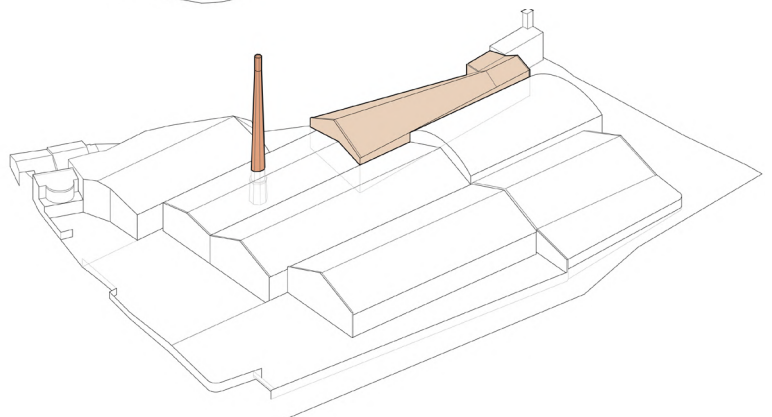
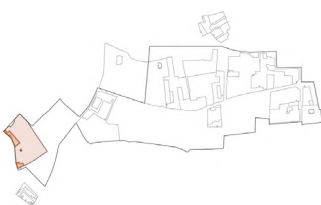
BRL 5 y 6
Historic Industrial Complex
"Viuda Morera" (left) and
"Benimeli" (right)



BRL 7
Historic Industrial Ensemble
"Anticfang"



BRL 8
"Gilabert" Historic Industrial Complex



Cultural Section - Listed Assets (BC): other historic buildings

For the rest of the historic constructions identified in Analysis 2.1., heritage protection is proposed as a listed building of ethnographic interest, in the cultural section of the catalogue. These are buildings which, although they do not belong to any industrial complex, are related to the activity of this or to other historical aspects of the area.

Other important aspects of the history of the area can be understood through these constructions: the residential settlements of the factory workers, for example, allow us to understand the significant increase in population that Oliva experienced as a result of the boom in industrial activity, as well as the urban consolidation of the Sant Francesc neighbourhood, which forms the southern edge of the town centre; The agricultural estates of the rural villas of Martí Veses and Villa Ferrera bear witness to the pre-industrial stage, when the whole area was dominated by dry farming; finally, the plot of land of Aigües Bolinches, located at the closest end of the town centre, houses the drinking water well with the original motor dating from 1927, whose use is currently limited to emergency situations.

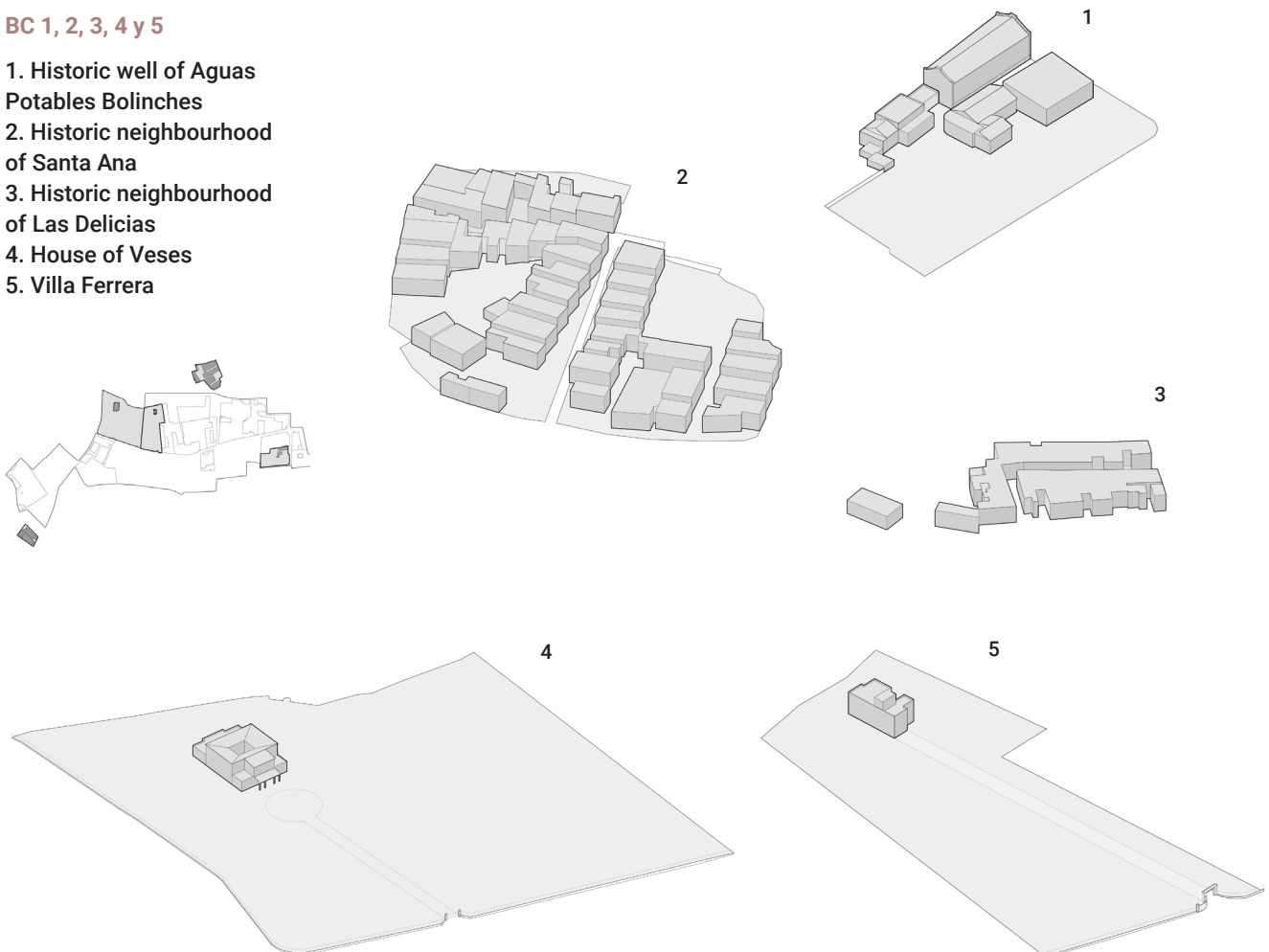
Fig 5. Historic buildings proposed as Listed Property.

Source: own elaboration.

Its protection regime will be that determined by the catalogue itself for this category of protection. The constructions to be considered are the following:

BC 1, 2, 3, 4 y 5

1. Historic well of Aguas Potables Bolinches
2. Historic neighbourhood of Santa Ana
3. Historic neighbourhood of Las Delicias
4. House of Veses
5. Villa Ferrera



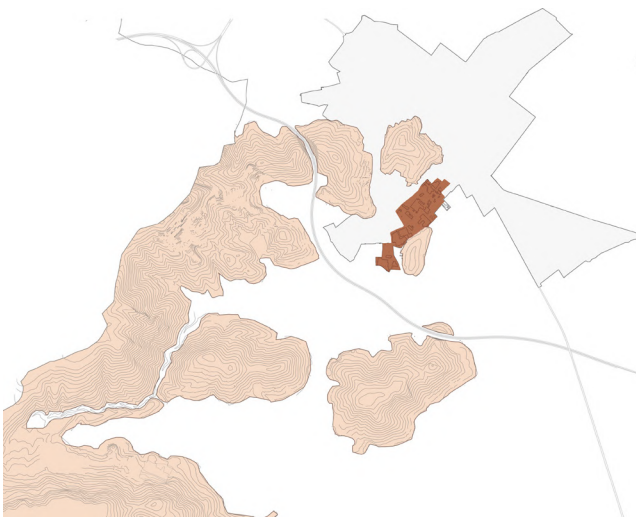
Landscape Section - Landscape resources and units: territorial elements

Finally, it is proposed that the different territorial elements identified in the Analysis Document be included in the Landscape section of the Municipal Catalogue. These elements, which make up the physical and natural support in which the industrial complex is located, are essential to ensure a correct understanding of it.

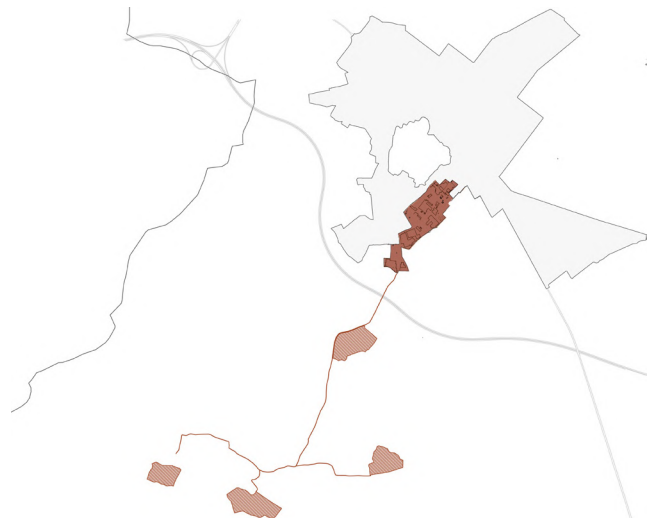
In this way, the municipal administration will have the tools and arguments to ensure the care and preservation of these natural or rural areas over the years to come. Furthermore, the inclusion of the Els Rajolars area itself as a landscape unit will make it possible to establish the necessary control over some of the aspects of urban design, as established in the Catalogue's regulatory report. Some of these aspects are the urban development conditions, treatment of areas and plant species, landscape integration of new constructions, regulation of advertising signs or the protection of non-architectural elements such as the Riuet dels Frares ravine.

Fig 6. Elements proposed as Landscape Units and Landscape Resources.

Source: own elaboration.



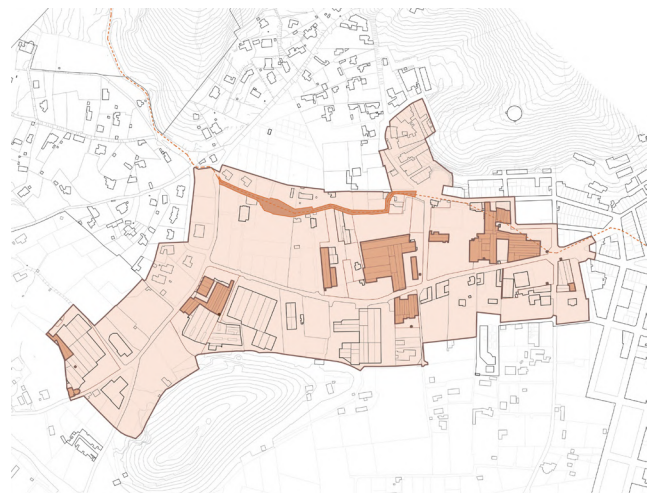
RP 1 Scenic backdrop of mountain formations



RP 2 Former clay mines



RP 3 Periurban Orchards



UP 1 Els Rajolars Urban Landscape Unit



Architectural design criteria

Related milestones:

Investee directives:

D2.3

Ensuring a quality urban landscape that reflects the historical identity of the settlement of Els Rajolars is one of the keys to the success of the urban development to be carried out, both from the point of view of heritage preservation and from the environmental and aesthetic attractiveness sought for the area. As mentioned in the section Analysis 2.3. Cultural Landscape, the correct integration of the new constructions is one of the key points on which the success of the renovation of Els Rajolars depends, as part of its values could be blurred if the appropriate criteria are not imposed.

On the other hand, there are also other issues applicable to any development that must be addressed from the tools of architectural design, being of particular relevance the correct adaptation to the climate in which we find ourselves, a key aspect in reduction of the settlement's energy consumption. It is therefore essential to establish the necessary criteria for the future definition of new buildings within the appropriate lines of action.

Procedure

The proposal for the new buildings in the area will be specified with the drafting and future application of the Development Plan for the Els Rajolars area (PEPRI). This plan will include in its documentation the development plans and the urban development rules that regulate the typological, morphological and material parameters of the new buildings, taking into account criteria such as architectural typology (external volumetry, roof, silhouette), composition (solid-hollow relationship, hollow typology), materiality (colour, finish, ornamentation, material used, lighting conditions) and the construction system.

It is recommended that these guidelines are also present in the Landscape Study to be prepared for the municipality in order to regulate the Landscape Integration Study to be included in the planning figure that develops the area, thus ensuring compliance with these criteria. This study must have the approval of the Consellería de Urbanismo and Consellería de Cultura for its approval, based on the request of a previous report.

However, it is recommended that, in parallel, the guidelines regulating the typological and aesthetic conditions of the new buildings be included in the corresponding file of the Catalogue of Heritage Protections of the *Els Rajolars Landscape Unit*.

Eligible cost

The architectural criteria proposed by the Master Plan are based on the principles of the Law on Architectural Quality, in the sense defined by the Spanish Urban Agenda (Programme C02.I02) and the White Paper on Housing of the CV, which may facilitate access to future lines of funding from these bodies to carry out the different planning figures that must reflect the management criteria set out.

Type of tasks to be performed:



Regulatory drafting

Estimated eligible cost*

Drafting of the Special Plan

70mil €

35mil €

35mil €

Total material cost

Eligible cost

*The cost of material goods to equip a permanent museum collection is estimated. Similar tenders from the last 3 years in the Valencian Community are taken as a reference.

Criterion 1

Fig 7. Conceptual sketches of typology and aesthetic conditions

Source: own elaboration.

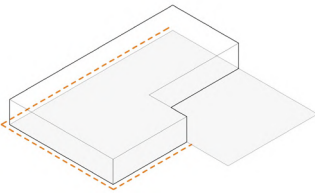
Definition of the proposal

Historical identity: typology and aesthetic conditions

Any architectural design that wishes to be introduced into the area must be conceived from its relationship with the historical constructions. The following indications seek to achieve this relationship through homogeneity, trying to resemble the typology of the industrial buildings without renouncing to adapt to the proposed residential model, allowing both the direct relationship with urban life and the enjoyment of a large extension of private open land in direct contact with the natural environment.

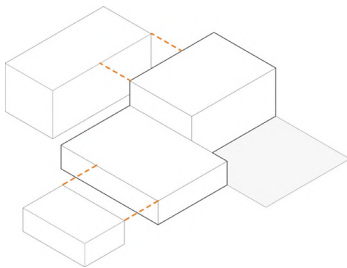
Alignments to frontages and plot boundaries

Mandatory alignment is proposed for all plot frontages adjoining the public road and a minimum separation of 8m for boundaries adjoining other private plots. Alternatively, the first obligation could be eliminated if the space between the public road and the building façade is kept as landscaped land, limiting the minimum separation of the plot from the public road enclosure of the same to plant elements that allow a view over them. These conditions are intended to encourage the location of common or commercial uses in relation to the public road, thus enriching urban activity.



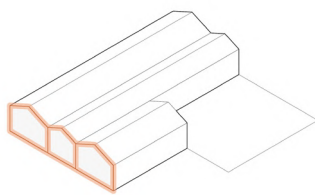
Maximum height

A flexible limitation of the maximum cornice height is proposed, depending on the height of the pre-existing buildings in the immediate surroundings of each building in question, up to a maximum of 9m and 3 storeys. In this way, each façade of the same building may have a different maximum height, depending on the historic building closest to that façade. The aim is to allow for the possibility of a certain variety of heights in specific places without compromising the urban prominence of the historic buildings.



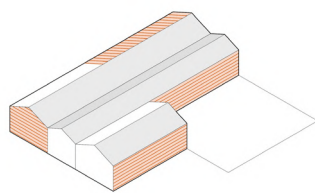
Gable roofs

One of the main features of the historic buildings in the area is their composition based on parallel bays with gable roofs. It is proposed to take this feature as a conditioning factor for the new buildings in order to maintain the homogeneity that characterised this area. Taking the existing warehouses as a reference, the span of these bays may be variable, ranging from 8 to 20m, with façades of between 18 and 30m; the slope of these bays should be around 30% and their ridge line should be perpendicular to the main traffic routes.



Ceramic or neutral materiality

Undoubtedly one of the fundamental visual and cultural elements of the area is the materiality of the walls and lattices of traditional ceramic tiles. In order to preserve and enhance this characteristic of the landscape, it is proposed to limit the exterior finishes of the new buildings to reddish ceramic tiles, with plain white walls being used as an occasional alternative. The roofing materials may also be ceramic or, alternatively, show the raw grey of solutions based on zinc or similar, preferably in light tones. Any type of enclosing element or practicable covering (awnings, lattices, etc.) must also maintain the chromatism described above.

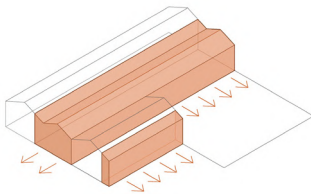
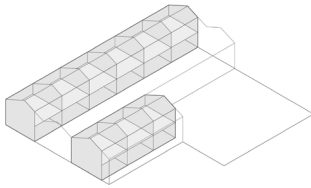


Criterion 2

Functionality: matching uses to types of space

Fig 8. Conceptual schemes of functionality and climatic suitability

Source: own elaboration.



The next criterion to be defined is related to the incorporation of new residential, commercial and public uses in the industrial-scale spaces of the warehouses to be conserved. Given that this is a common theme in all the historic complexes to be rehabilitated, it is appropriate to establish a general criterion that can be applied uniformly.

It is proposed to approach each of the programmes to be implemented considering the distinction between uses that require more compact and defined spaces, and those that require larger and more open spaces. These two types of spaces can be associated with different air-conditioning needs: an optimal level for compartmentalised spaces (such as dwellings, rooms, classrooms and offices) and a more basic level for open spaces (such as dining rooms, socialising areas and collaborative work rooms). This differentiation is particularly appropriate for our climate, which maintains moderate temperatures throughout much of the year.

The application of this concept to the constraints of heritage protection results in an architectural translation that consists of conceiving the compact spaces as newly built volumes located within the original volumes of the industrial buildings. In this way, the perception and integrity of the historic structures can be preserved without compromising the functional needs of the project.

Far from being a disadvantage, this circumstance can become an opportunity to enrich the spatial and functional result of all interventions, including those of new buildings, in which the combination of housing with productive or care uses is sought, a combination that allows the direct application of the proposed concept.

Criterion 3

Climate: bioclimatic behaviour and reduction of energy demand

Finally, it is mandatory to pay attention to the climatic suitability of the proposed architecture, with the aim of limiting energy consumption as much as possible. In a climate characterised by mild temperatures, high humidity and hot summers, the main needs to be focused on are ventilation and protection from solar radiation.

Based on the above criteria, it is proposed to use the open-plan spaces as a thermal buffer for the enclosed spaces. To this end, they should be located on the south side of the building and their enclosure should be as permeable as possible to encourage ventilation. It will also be important to ensure that the volumes of the enclosed spaces maintain a limited depth of no more than 12m and that, as far as possible, their interior distribution favours air circulation.

With regard to solar shading, it is advisable to install retractable awnings on south-facing roof slopes or, failing that, roof systems that allow ventilation between the enclosure layer and the thermal insulation layer, as well as openings at the ridge to allow hot air to escape in summer and to promote ventilation by convective effect.

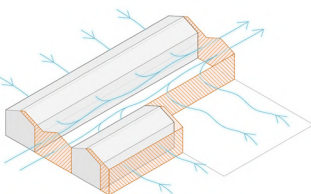
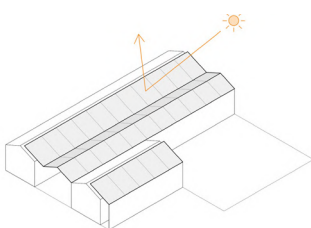


Fig 9. Conceptual scheme of bioclimatic functioning. Winter

Source: own elaboration.

In winter, uncovered awnings allow direct solar radiation to enter the interior spaces. The permeable enclosures of the semi-indoor spaces protect against gusts of wind without impeding ventilation.

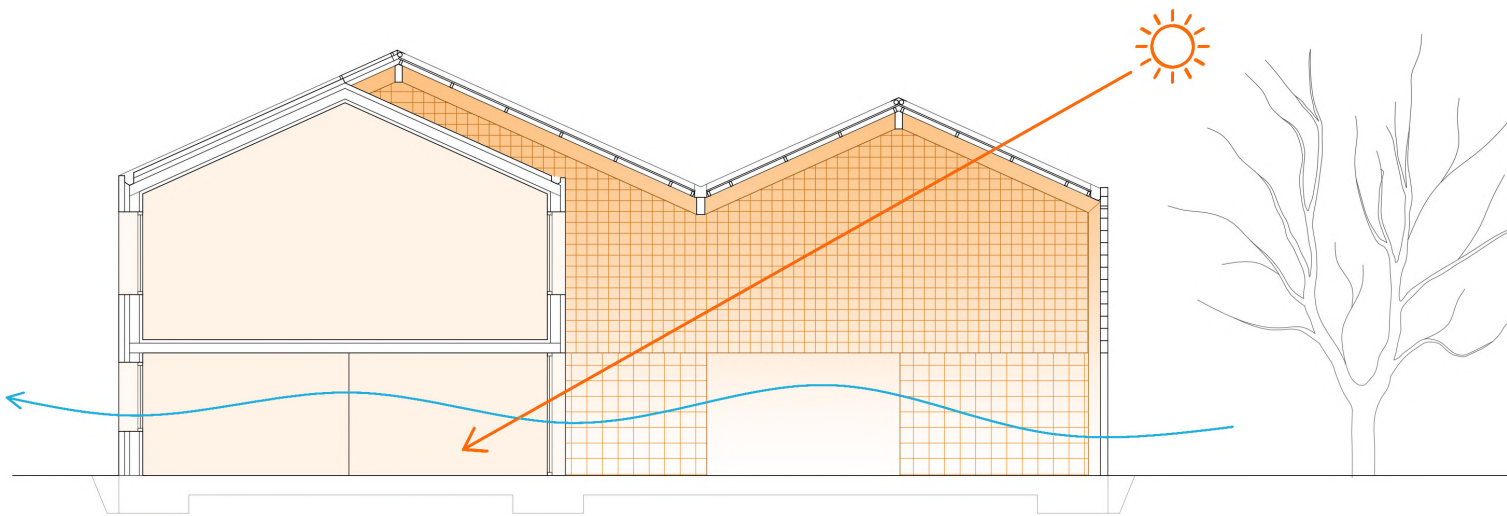
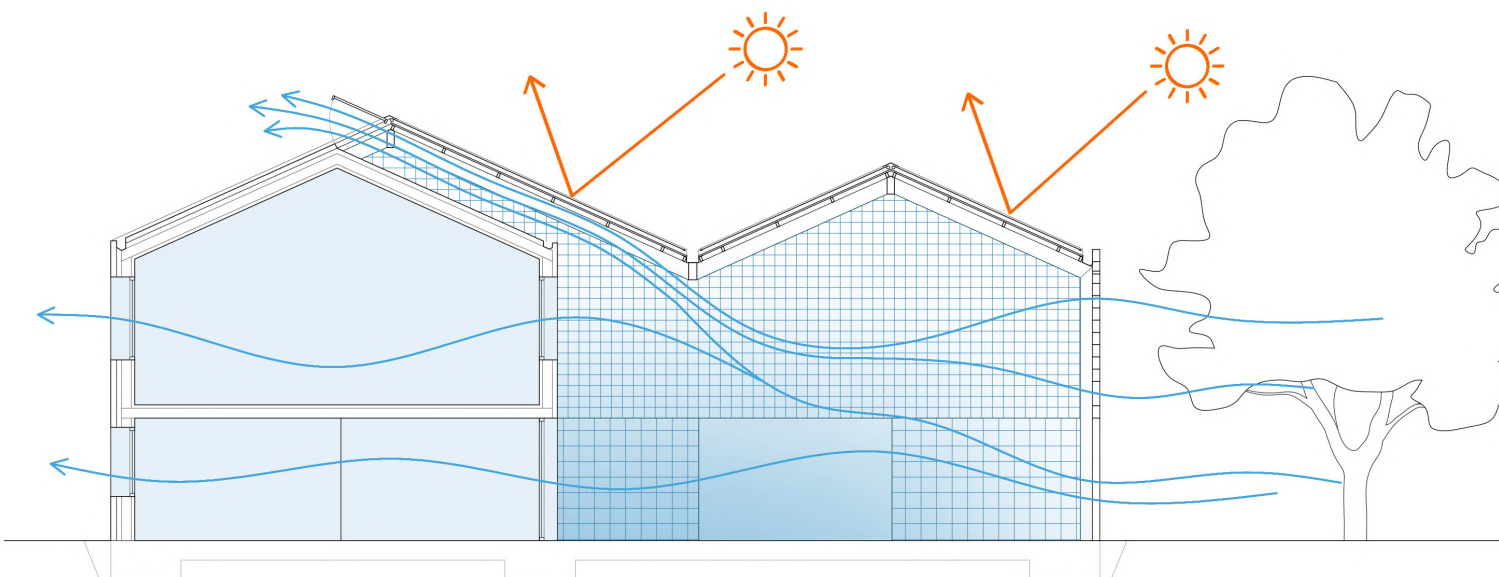


Fig 10. Conceptual scheme of bioclimatic operation. Summer

Source: own elaboration.

In summer, closed awnings and permeable enclosures protect against direct solar radiation. Openings in the ridge evacuate hot air, generating convective ventilation throughout the building.





INTERVENTION PROJECT 2.4.

Urban design criteria for redevelopment

Related milestones:

Investee directives:

D2.3

The spatial structure of the Els Rajolars area is the result of the superimposition of different stages of human activity that were never ordered by urban planning, which has led to the lack of definition of an urban edge, the functional disarticulation of part of the rural plots or an incorrect relationship between buildings and natural elements. On the other hand, the current division of plots responds to an industrial scale that is difficult to reconcile with residential use, which requires blocks of a size more closely linked to the scale of the pedestrian.

The task of this renovation process is to establish a planning criterion that allows the introduction of the spatial order necessary to complete the consolidation of this area without renouncing the integration of the proposed objectives: conservation of heritage elements, articulation with the natural environment, quality public spaces... This proposal puts forward a series of spatial planning criteria that are the synthesis of the initial needs and the conclusions of the analysis and participation process.

Procedure

As in the case of the architectural design criteria, the urban design proposal will have to be specified in the future drafting of the planning document to be submitted to the European Commission.

develop the area. This will include in its documentation the development plans and the urban development rules that regulate the design of the urban space of Els Rajolars through the definition of the urban blocks (minimum plot, buildability, occupation, height of floors, official alignments) and the definition of the free areas of the building (uses, materials, urban furniture, landscaping...).

It is recommended that these guidelines are also present in the Landscape Study to be prepared for the municipality in order to regulate the Landscape Integration Study to be included in the planning figure that develops the area, thus ensuring compliance with these criteria. This study must have the approval of the Department of Town Planning and the Department of Culture for its approval, based on the request for a prior report.

In addition, some of the above criteria, such as the preservation of the layout of the main roads, may be included in the heritage protection file of the "Els Rajolars Landscape Unit in order to ensure the coherence of all the normative documentation.

Eligible cost

The urban planning criteria proposed by the Master Plan are based on the Urban Regeneration Strategy of the C.V., in addition to all those aligned with climate change mitigation and adaptation strategies, which will facilitate access to future lines of funding from the ERDF, InterregSUDOE and Order 16/2022 of the Regional Ministry of Ecological Transition (PACES) in order to carry out the different planning figures that must include the planning criteria set out above.

Type of tasks to be performed:



Regulatory drafting

Estimated eligible cost*

Drafting of the Special Plan

70mil €

35mil €

35mil €

Total material cost

Eligible cost

**The cost of material goods to equip a permanent museum collection is estimated. Similar tenders from the last 3 years in the Valencian Community are taken as a reference.*

Definition of the proposal

Criterion 1

Historical identity: pre-existences to be maintained.

Fig 11. Pre-existences to be maintained

Source: own elaboration.

- Historic buildings
- Layout of historic roads



Taking into account the conclusions obtained from the analysis process, it can be established that any development proposed for the area must be based on the preservation of the historic elements: chimneys, historic industrial buildings and the layout of the main roads (Paseo de Ladrillares, Senda dels Lladres and Camí les Mines). The rest of the buildings can be demolished, so their position can be avoided in order to achieve the best possible spatial planning.

Criterion 2

Rational use of land: building-free areas

Fig 12. Building-free areas

Source: own elaboration.

- Urban land to be renaturalised
- Urban treatment land rural
- Urban land with building intensity concentration
- Windows to the landscape



The next of the proposed criteria consists of concentrating all the built-up land along the main roads of Paseo de Ladrillares and Camí les Mines, ensuring that all the plots have access from them. In this way it will be possible to establish a transition space between the built-up plots and the natural elements of the Algar mountain and the ravine, a space which in the case of the latter is obligatory. In addition, this criterion provides other important advantages, such as boosting urban activity and the operation of shops or minimising the economic and material resources to be used, as the surface area of roads requiring complete urban facilities (water supply, drainage, lighting, communications, electricity, etc.) is reduced to a minimum.

Criterion 3

Sunlighting and urban alignments: area of movement of new buildings:

Fig 13. Movement area of new buildings

Source: own elaboration.

- Urban alignments
- ▨ Open spaces
- Area of movement of new buildings.

In order to establish a criterion that defines the layout of the new buildings within the available area, two main issues are taken into account: on the one hand, the creation of clear alignments that allow a unitary and orderly understanding of the area and, on the other hand, the generation of gaps between buildings that give rise to open spaces that can interact with the programme of the buildings themselves. Adding to these issues the variable of solar orientation, the alignments will be arranged towards the north side of the buildings, while the open spaces will be to the south.



Criterion 4:

Networked public space and functional articulation with the environment: squares, green areas and transversal connections.

Fig 14. Public space and cross connections

Source: own elaboration.

- Trails
- ▨ Public squares
- Cross-connections

In line with Criterion 2, it is proposed to formalise the public space through concatenated squares and green areas along the main road, whose position will take into account the location of the chimneys and the gaps between buildings. The aim is to achieve a networked public space that allows for vegetation areas as evenly distributed as possible, protecting the façades from solar radiation and reducing the heat island inherent to any urban area. On the other hand, a series of transversal connections are proposed between the main promenade and the different existing streets and paths that allow the area to be articulated with its surroundings. These connections are not to be understood as complete urban streets, but as pedestrian crossings through the open spaces of the area.



Result: urban consolidation and minimisation of sealed land.

From the application of the aforementioned criteria, the reformed state plan is obtained, which serves as the basis for the entire proposal for the transformation of the area. It should be understood that this result is only one of many possible ones, so it will be more important to pay attention to the criteria themselves than to the specific solution proposed. However, it is worth pointing out some of the particularities that make up this solution which, although they are not general criteria like the previous ones, can be considered positive decisions:






With regard to the new buildings, an attempt has been made to ensure that those located on historic plots bear some relation to the original demolished buildings in terms of size and orientation (1). A single architectural type has also been maintained which can be repeated throughout the area with different variations, in order to achieve a suitable homogeneity and simplify the layout (2).

On the other hand, it has been considered important to accompany the cross-connections with extensions of renaturalised soil that serve to establish a relationship between the natural elements and the vegetation of the urban green areas (3).

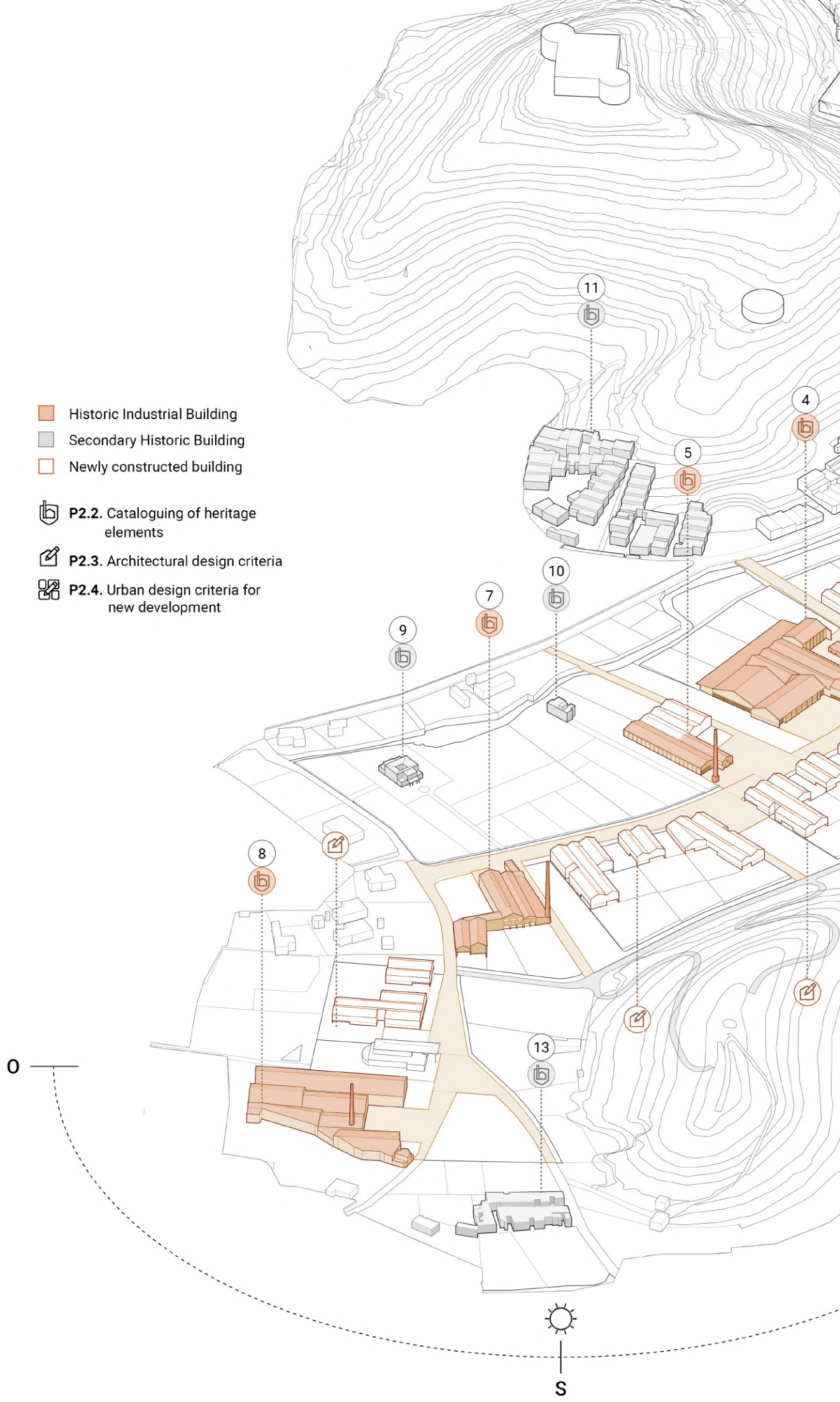
These connections have paid attention to the following key points: reducing the size of the Arlandis-Sequer and Salvaora blocks by means of secondary passages to adapt them to a residential urban scale and improve access to the area for residents (4), improving access to the La Carrasca residence (5) and articulating a possible access to Mount Algar (6) that could also serve as a secondary longitudinal road to facilitate surveillance of this area of renaturalised land, as well as forming part of the necessary firebreak strip described in Proposal 3.2.

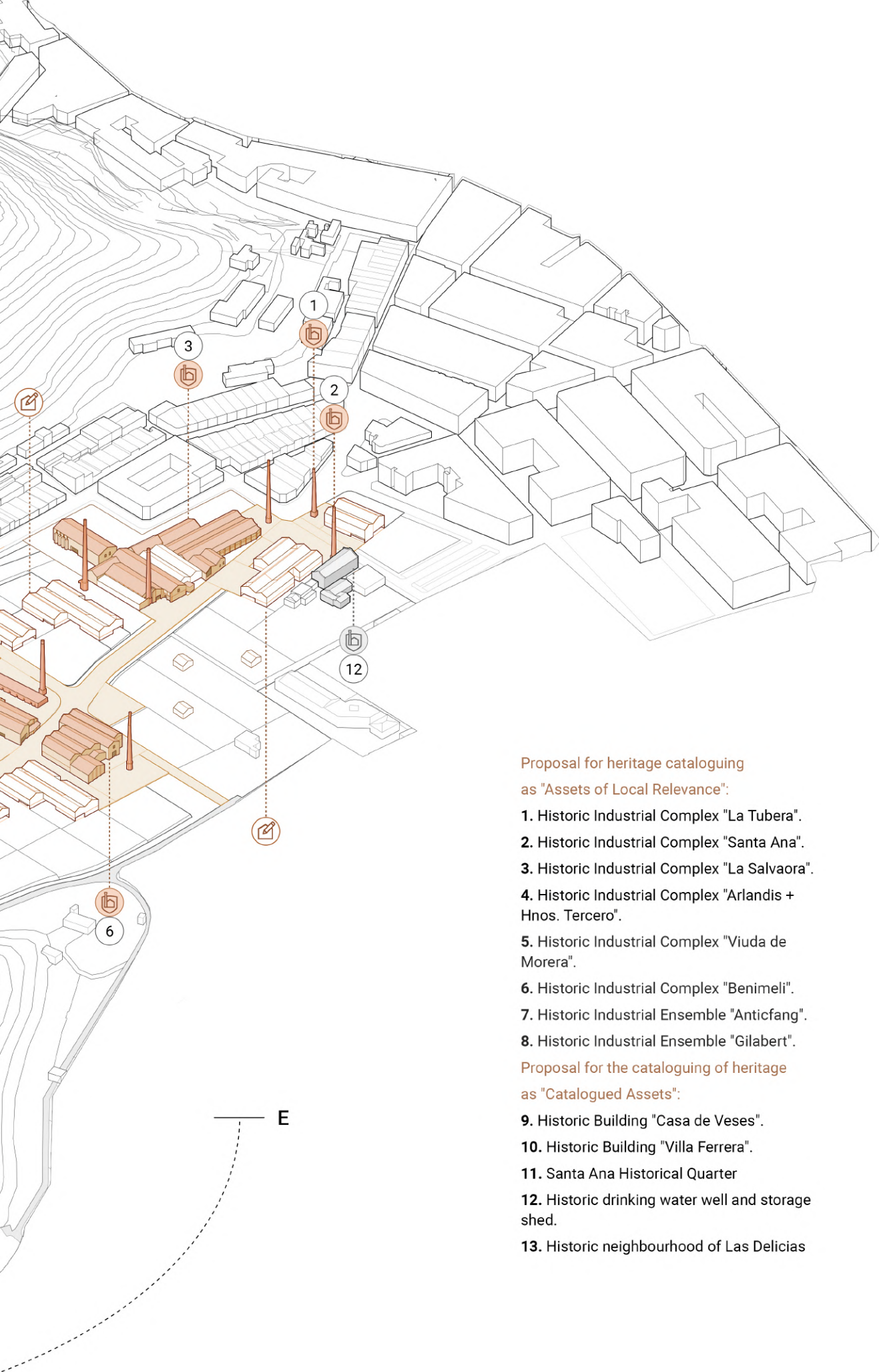
Fig 15. Proposed reformed state plan

Source: own elaboration.

-  Historic buildings
-  New buildings
-  Main roads and public squares
-  Urban green space
-  Private open space Suelo urbano renaturalizado (libre de edificación)







Proposal for heritage cataloguing
as "Assets of Local Relevance":

1. Historic Industrial Complex "La Tubera".
2. Historic Industrial Complex "Santa Ana".
3. Historic Industrial Complex "La Salvaora".
4. Historic Industrial Complex "Arlandis + Hnos. Tercero".
5. Historic Industrial Complex "Viuda de Morera".
6. Historic Industrial Complex "Benimeli".
7. Historic Industrial Ensemble "Anticfang".
8. Historic Industrial Ensemble "Gilabert".

Proposal for the cataloguing of heritage
as "Catalogued Assets":

9. Historic Building "Casa de Veses".
10. Historic Building "Villa Ferrera".
11. Santa Ana Historical Quarter
12. Historic drinking water well and storage shed.
13. Historic neighbourhood of Las Delicias







Els Rajolars integrated and resilient

PROPOSAL FOR ENVIRONMENTAL NETWORKS

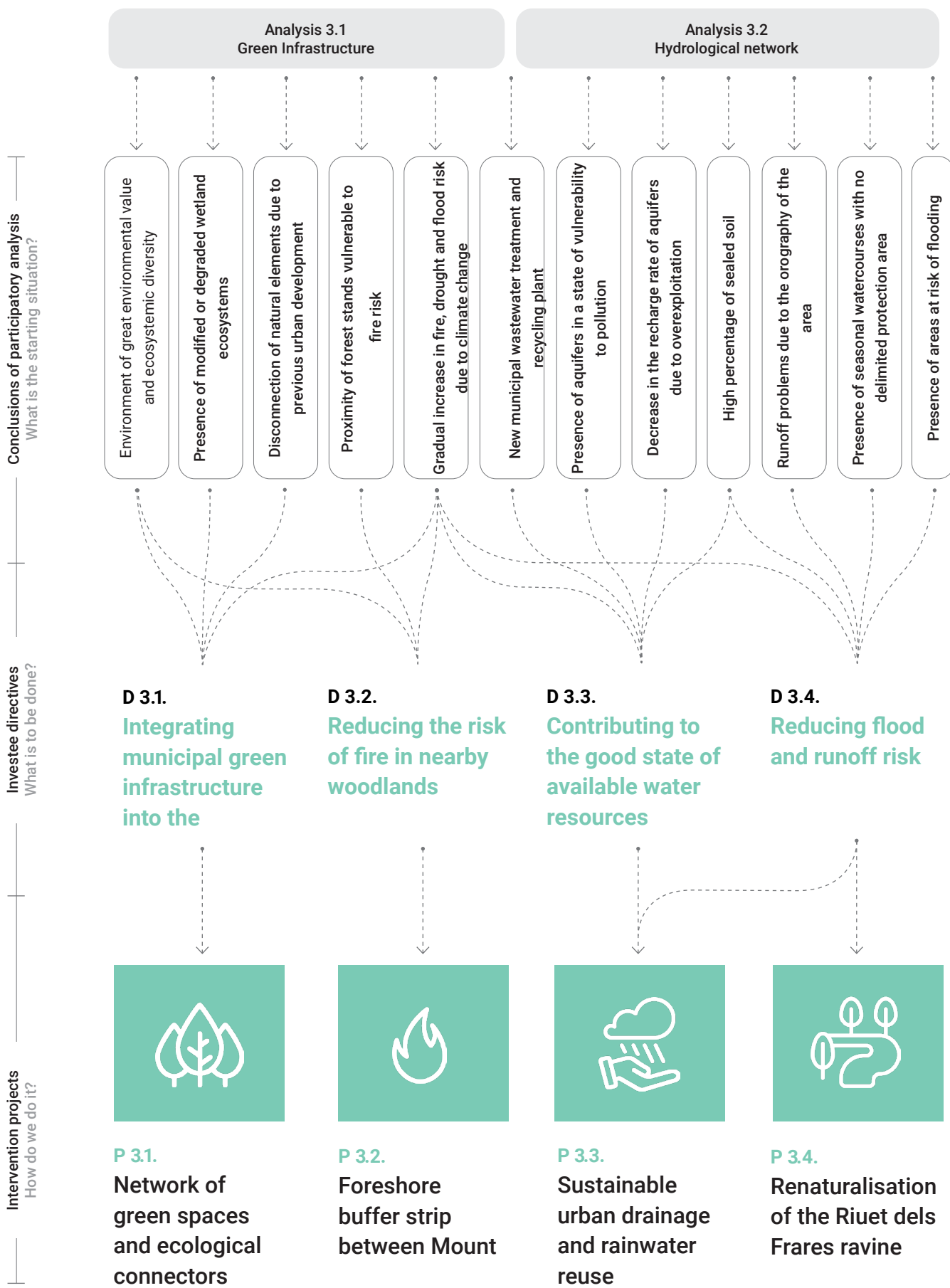
Integrate the area into its ecological environment and make it resilient to the various natural impacts.

Els Rajolars Integrated and Resilient is the strategic line that supports all the proposals related to the natural environment, that is to say, it includes the actions that have to do with the environmental conditioning factors of the area, such as its green infrastructure and hydrological network. The aforementioned strategic line will focus on two main objectives:

On the one hand, to ensure the integration of the Els Rajolars area into its natural surroundings. The area is situated in a privileged location, surrounded by natural areas of high environmental and ecological value but disconnected from each other by dispersed urban growth. This connection is desirable in order to guarantee ecosystemic continuity, preserve habitats and conserve Oliva's biodiversity. The aim is therefore to design the public space of the new urban development as part of the local Green Infrastructure of Oliva and to connect it in turn with the different components of the municipal Green Infrastructure: the wooded areas of Mount Santa Ana and Mount Algar, the riverside area of the Riuets dels Frares ravine and the Vereda Real livestock track. It will also be necessary to recover the ecosystems damaged during the industrial period of the area, as is the case of the riverside forest ecosystem of the Riuets dels Frares ravine, whose condition as a natural ecological connector has been lost due to the morphological alteration of its course.

On the other hand, the aim is to make the area resilient to the different natural risks to which it is affected. On the one hand, the flood risk associated with the seasonal course of the Riuets ravine. This risk has two components: one fluvial, associated with the possible floods that the riverbed may experience, and the other pluvial, related to the strong surface runoff suffered in episodes of torrential rain. In this context, the aim is to integrate this risk into the future development of the area by establishing a protected area free of construction around the ravine. It is also proposed to implement a sustainable urban drainage system that mitigates surface runoff while retaining and harnessing water for other uses. The risk of fire, increased by the drought, must also be considered, especially on the slopes of Mount Algar where the proximity to the urban environment and the vulnerability of the forest mass increase the risk of fire propagation.

In conclusion, it is considered that the design of the area must take into account the natural environment in which it is located, both to take advantage of its natural resources and to ensure its safety in the face of environmental risks.



INTERVEE DIRECTIVES

D 2.1. Integrate Municipal Green Infrastructure in the project area

Policy and strategic framework:

Law 5/2014, of 25 July, on Spatial Planning, Urban Planning and Landscape of the CV.

PATIVEL. Protection of vacant land for development as part of Green Infrastructure.

Els Rajolars premises.

PATFOR. Management of nearby forest ecosystems

Strategic Plan for Natural Heritage and Biodiversity

The functional, landscape and ecological integration of urban public spaces with the natural environment surrounding the Els Rajolars area is desirable for the population of Oliva. Firstly, to improve the environmental quality of the urban area, since forest, woodland and riverside ecosystems regulate temperature and humidity, as well as helping to mitigate the effects of climate change as carbon sinks.

Secondly, this connection will make it possible to achieve the quality public open spaces that society demands, with direct access to the natural environment for outdoor activities. In this way, the adjoining mountains will be not only a fundamental environmental resource for the city, but also a social and economic resource that favours tourism centred on the natural environment.

Finally, the ecological connection of the different ecosystems across the area also helps to combat the loss of biodiversity and habitat fragmentation due to urban sprawl and the loss of forest land to agricultural expansion.

The natural elements of singular relevance for biodiversity such as the mountain area of the nearby formations (Monte Algar and Santa Ana), the riverbed of the Barranco del Riuet or the Vereda Real that crosses the area are natural connectors that must be integrated into the urban structure of Els Rajolars. Outside the area, the vacant urban or developable land is also a potential connecting space, capable of integrating the forest ecosystems of Monte Tossal de la Creu with the productive agricultural areas and the riverside ecosystem of the ravine.

D 2.2. Reducing the risk of fire in nearby woodlands

Policy and strategic framework:

PATFOR. Management of nearby eco-forestry systems and protection measures in case of forest fires.

Forest Fire Prevention Plan of the Polinya del Xuquer Forest Demarcation.

PLPIF (Local Plan for the Prevention of Forest Fires)

Spanish Forestry Strategy

The degradation of the vegetation of the forest masses near the area, together with the prolonged periods of drought, the proximity of dwellings to the woodland and the high incidence of forest fires, make it appropriate to carry out actions aimed at reducing the vulnerability of the woodland and thus reducing the spread of fires that put the population at risk.

The new planning of Els Rajolars must take into account the proximity of its urban environment to the forest mass of Mount Algar. This formation, despite having a good state of vegetation, is vulnerable to fire due to the presence of the highly combustible *Pinus halepensis* species. For this reason, the new urban-forest interface between the residential area of Els Rajolars and the mountain must meet the necessary distance requirements and extinguishing methods required in accordance with the Fire Prevention Plans to guarantee the safety of residents and prevent the spread of fire in the event of a fire. At the same time, it seems necessary to reduce the vulnerability of the forest itself to fire. In this sense, forest management aimed at modifying the vegetation structure (fuel pattern) and/or species composition can substantially reduce the danger of forest fires and ensure the good forest quality of the area.

D 2.3. Contributing to the good state of available water resources

Policy and strategic framework:

Law 5/2014, of 25 July, on Spatial Planning, Urban Planning and Landscape of the CV.

Hydrological Plan for the Júcar River Basin Demarcation (2021)

EVCC (Valencian Strategy to Combat Climate Change)

DSEAR Plan

The increasing episodes of drought are leading to a reduction in water resources. Groundwater bodies, the main source of drinking water in the municipality, will progressively reduce their recharge rate, putting their capacity at risk.

This scarcity implies the overexploitation of available aquifers, degrading the quality of water and increasing the energy cost of its extraction, as well as contributing to the desertification of the territory.

Measures should therefore be taken to rationalise water consumption and increase water reuse. Sustainable rainwater harvesting and storage systems on an urban scale can take advantage of this resource to contribute to the water demand of the future Els Rajolars development.

The vulnerability of the aquifers is also conditioned by the infiltration of polluting substances through the permeable recharge soils. The Oliva-Pego aquifer, under the Els Rajolars area, suffers from the presence of nitrates from polluting uses and other phytosanitary substances from agricultural activity, which endanger the quality of its waters. These are filtered in adjacent highly permeable land which historically played a fundamental role in capturing and filtering rainwater but which is currently nullified by the impermeabilisation of the industrial land.

Therefore, it must be guaranteed that there are permeable recharge areas within the area, free of polluting substances, which allow water to filter into the subsoil and contribute to improving the state of this aquifer.

D 2.4. Reducing flood and runoff risk

Policy and strategic framework:

Law 5/2014, of 25 July, on Spatial Planning, Urban Planning and Landscape of the CV.

PATRICOVA

Modification of RD DPH (Articles 9, 9 BIS and 14)

PGRI 2nd Cycle. Júcar Hydrographic Confederation.

EVCC (Valencian Strategy to Combat Climate Change)

ENRR (National Strategy for River Restoration)

The flood risk affecting the area must be addressed by addressing the causes that have led to this increased risk, bearing in mind the context of adaptation to climate change, as an increase in flooding episodes is expected, with more frequent floods and higher peak flows.

In this context, the reorganisation of the floodable area, the recovery of the riverside area and the restoration and extension of the fluvial spaces, seeking to reverse the hydromorphological deterioration of the watercourses involved, take on special relevance. The Riuets dels Frares ravine is immersed in a historically flood-prone river sub-basin, that of the Barranco del Riuets, so its course must be analysed and a protection area free of buildings must be established to prevent river flooding due to overflowing.

In times of torrential rainfall, large surface runoffs are formed in the area, which flow downstream from the mountain, causing significant damage in their wake. The topography of the area, the hydromorphological changes to the nearby riverbeds and the lack of infiltration of the land due to the large area of impermeable built-up areas increase the danger of this phenomenon.

This situation can be controlled through a sustainable urban drainage system (SUDS), which collects and stores and infiltrates water within the area to reduce surface runoff.



INTERVENTION PROPOSAL 3.1.

Network of green spaces and ecological connectors

Related milestones:

Investee directives:
D3.1.

The area of Els Rajolars is surrounded by natural areas of high ecosystemic value, such as the forest areas of Mount Algar and Santa Ana, and of high ecological potential, such as the Riuet dels Frares ravine. All these elements form part of the Municipal Green Infrastructure of Oliva but are disconnected from each other due to the industrial development of Els Rajolars. It is therefore an environment that is not at all permeable to the natural environment, which favours the loss of biodiversity and habitat fragmentation of the immediate ecosystems. In order to achieve the desired ecological, functional and landscape integration of Els Rajolars with its natural environment, this situation must be reversed through the planning of urban green areas.

Procedure

Type of tasks to be performed:



Drafting of regulations



Drafting of projects



Public works execution

With the approval of the Territorial Action Plan of the Central Regions, the Green Infrastructure of Oliva will be defined and catalogued at municipal level. In this context, the new urban development plan of Els Rajolars (PEPRI) will have to define the urban elements which, at neighbourhood level, form part of the local Green Infrastructure of Oliva and guarantee its connection with the components of the municipal network.

The future Special Plan that will regulate the area will be subject to a process of strategic environmental and territorial evaluation, where the ecosystemic integration of the new development with its natural environment will be assessed. Its integration into the landscape must also be justified by means of a Landscape Integration Study. Once this plan has been approved, work will begin on the urbanisation of the network of urban green areas that will form part of the Action Programme for the Els Rajolars units. This project will take into account the criteria for the design, execution and conservation of spaces and plant elements in the area set out in this document.

In parallel, to ensure ecosystemic continuity within the municipality of Oliva, it is recommended that a Strategic Plan for Urban Green Infrastructure and Biodiversity be drawn up, which organises the urban scale and proposes the incorporation of strategic land for connection to the municipal Green Infrastructure.

Eligible cost

The criteria of this project are fully aligned with the objectives of the ERDF (Objectives 2.4, 2.5 and 2.7), LIFE and InterregSUDO (Objective 5) programmes, which will facilitate access to future calls for proposals under these programmes. It will also be possible to apply for future aid from the National Plan for Adaptation to Climate Change and the PIMA-CC of the Ministry of Ecological Transition. Once the PACES is approved, it will be possible to apply for Order 16/2022 of the Regional Ministry of Ecological Transition to carry out works included in this document and finally, the Conviure Plan (Branch 2) of the Regional Ministry of Housing and Plan Verdea of the Regional Ministry of Ecological Transition, to finance the drafting of projects and execution of works to adapt the built environment through actions in public spaces such as streets, squares or leisure and recreation areas.

Estimated eligible cost*

Urban green spaces



*IVE 2023 construction ratios are estimated for green areas (41 €/m²c), landscaped squares (52 €/m²) and renaturated areas (20 €/m²).

Definition of the proposal

Spatial management and functional classification of vegetated areas

A network of green areas and ecological connectors is proposed that can be integrated with the elements of the green infrastructure of the immediate surroundings. Its components will guarantee the functional and landscape integration of the public space with its natural environment. The following classification is established according to the different qualities of these vegetated areas:

- **Renaturalised urban land:** These are green areas, in contact with the natural limits of the Els Rajolars area, which function as connecting elements between the public space and the different ecosystems (riverside and mountain) and also as windows open to the natural landscape. These will be areas of wild vegetation with hardly any maintenance.
- **Urban green areas:** These are landscaped spaces, of moderate maintenance, inserted within the urban environment for parks and gardens. Their size and distribution throughout the area combat the effects of the heat island, ensuring the environmental comfort of the public space.
- **Tree-lined squares:** These are concatenated areas that make up the public space and have specific plant elements organised in ditches and corridors, mainly to provide shade.
- **Private open space:** landscaped spaces within private plots that function as an extension of the buildings to the outside, creating meeting places with greenery and shade within the courtyards.

Fig 1. Spatial arrangement and classification of vegetated areas.

Source: Own elaboration

- Renaturalised urban land
- Urban green areas
- Tree-lined squares
- Private free space



It is proposed to increase the area of land permeable to achieve a real ecological connection with the natural environment.

Fig 2. Historical evolution of sealed soil. Comparison between current and proposed status.

Source: own elaboration based on IGN historical documentation

- Sealed floor
- Unsealed floor

Fig 3. Biochemical regeneration process of the sealed soil.

Source: own elaboration

Renaturation of the sealed soil and biochemical regeneration of the soil

From its agricultural origins to its industrial splendour, the area of Els Rajolars has experienced the continuous sealing of permeable soil under concrete slabs that have lasted until the present day. It is proposed to reverse this situation by increasing the area of permeable soil in order to achieve a real ecological connection with the natural environment.

Before revegetating these bare areas, the degraded soil, possibly contaminated and with low biological productivity, must first be recovered. For this purpose, biochemical treatment of the soil is proposed as an alternative to the use of artificial fertilisers, based on two joint regeneration actions:

- **Organic amendment**, covering with ecological compost from MSW (Municipal Solid Waste) to improve the water retention capacity, infiltration, porosity and structural stability of the soil.
- **Mycorrhizal shrub species (MVA)**, inoculation in the nursery, with the Glo-mus intraradices fungus, of native plant species (mastic, broom and wild olive) which stimulates their growth and uptake of nutrients. Once incorporated into the degraded soil, the mycorrhizal seedlings oxygenate and improve soil quality..

The synergy of these two actions guarantees a fertile soil after 2 years, at which time the shrubs will be replaced by the final plant species..

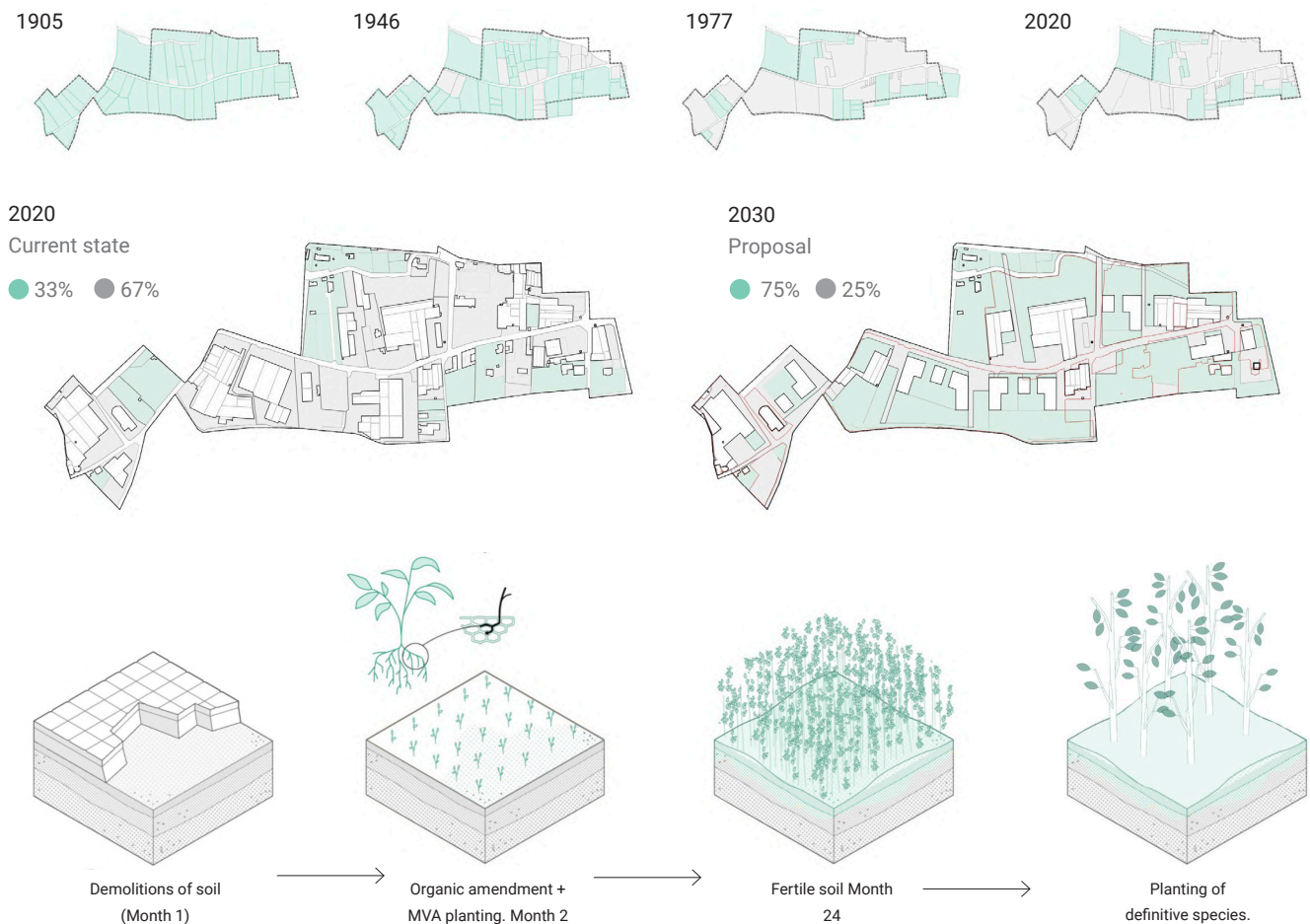


Fig 4 (above). Selected autochthonous species.

Source: own elaboration with data from Guía Verde and Canon de Belloch.

- Evergreen
- Deciduous
- Degree of maintenance

Fig 5 (abajo). Distribución de especies en el ámbito.

Fuente: elaboración propia

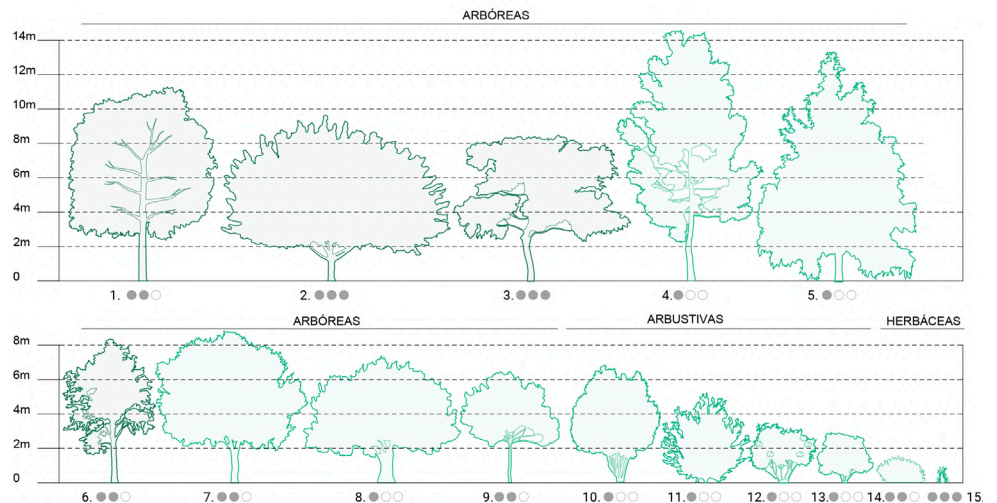
- Áreas con especies de mantenimiento mínimo
- Áreas con especies de mantenimiento moderado
- Áreas con especies arbóreas

1. Hackberry. *Celtis australis*
2. Mulberry. *Morus alba*
3. Cinnamon tree. *Melia azedarach*
4. Aleppo pine. *Pinus halepensis*
5. *Brachyton populus*.
6. Ash. *Fraxinus angustifolia*
7. Olive tree. *Olea europaea*
8. Carob. *Ceratonia siliquoa*
9. Oleander. *Nerium oleander*
10. Laurel. *Laurus nobilis*
11. Mastic. *Pistacia lentiscus*
12. Rockrose. *Cistus sp.*
13. Durillo. *Viburnum tinus*
14. Family *Lirope muscari*
15. Fescue. *Festuca arundinacea*

Selection and distribution of indigenous plant species

The aim is to create urban green areas that function as “natural gardens”, with non-invasive native species that are efficient in saving water. These plant species are selected from the list recommended by the Green Guide and according to the criteria of the Belloch Canon1: adaptability to the local climate (drought, flooding), ease of maintenance (pruning admission, waste generation), water saving and environmental regulation capacity. In order to achieve greater comfort in urban spaces, a distribution of species is sought that provides optimum plant cover throughout the year. Therefore, the selected species are distributed throughout the different urban green areas according to two main criteria:

- **Shading.** The aim is to guarantee quality shade in the most exposed areas of the public space, which is why the choice of plant cover (herbaceous, shrubs and trees) for each of the areas is decisive. The most unfavourable areas will be chosen for examples of trees that provide good solar retention, thanks to their size and crown size.s.
- **Maintenance.** Re-naturalised areas will be provided with low maintenance specimens that subsist on 100% natural resources while urban green areas assume moderate maintenance species that require the input of reused water resources for their survival and that respond well to the urban environment.





Firebreak strip between Mount Algar and urbanised area

Related milestones:

Investee directives:
D3.2.

Els Rajolars is an urban area surrounded by agricultural land and bordering the Strategic Forest Land of Monte Algar, an isolated forest mass of great value characterised by its high bioclimatic productivity. The vulnerability to fire of this mass is conditioned, in part, by the high combustibility of its predominant species: pinus halepensis, which appears in the form of small copses combined with low scrub.

Moreover, the proximity of buildings to wooded areas, together with the high incidence of forest fires in Oliva and increasingly long periods of drought, increase the danger at the forest-urban interface. It therefore seems appropriate to carry out of preventive actions aimed at reducing the vulnerability of the forest masses and thus the possibility of a fire spreading and putting the population at risk. The Local Plan for the Prevention of Forest Fires (PLPIF) considers the management of Monte Algar to be a priority, with actions to limit the impact of a fire with: firebreak strips and forestry actions.

Procedure

Type of tasks to be performed:



Drafting of regulations



Drafting of projects



Public works execution

Firstly, an updated topographical study of the area must be carried out to determine the width of the protection strip and establish the appropriate preventive measures. This protection strip and its associated regulations (LOTUP, PATFOR) will be taken into account when defining the new development of Els Rajolars (PEPRI), determining a strip free of buildings to limit the risk of forest fires. This measure will be justified in the PEPRI report in order to obtain a favourable Strategic Environmental and Territorial Assessment in the treatment of natural risks.

With the approval of the PEPRI, the new residential area of Els Rajolars can be incorporated into the Local Plan for the Prevention of Forest Fires in Oliva (PLPIF), including its border with the forest area of Monte Algar as part of the urban-forest interface.

Finally, the municipality will take over the management of this protection area by implementing measures such as a preventive forestry plan for Monte Algar, a service road for fire extinguishing and the installation of fire hydrants. The implementation works will have to be coordinated with the urbanisation works of the new development.

In parallel, to ensure forest quality and limit the vulnerability of Monte Algar's forest stands, it is recommended that the drafting of a Simplified Technical Forest Management Plan for Monte Algar be considered with the agreement of its owners.

Eligible cost

For the financing of the urbanisation works of the firebreak strip, it is possible to use the Decree Law 1/2023, of 13 January, of the Consell for the prevention of fires and forestry management. Once the Local Fire Prevention Plan has been approved, apply for aid under Order 14/2021 (PLPIF) of the Department of Ecological Transition for the development work on the firebreak strip on Mount Algar.

Estimated eligible cost*

Firewall strip

368 mil€

30 mil€ 338mil €

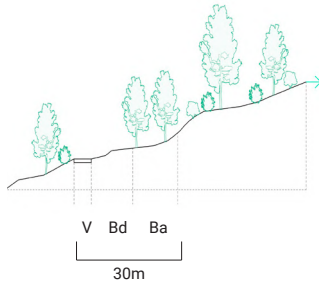
Total material cost

Eligible cost

**IVE 2023 construction ratios are estimated for green areas without sewerage and lighting (32€/m2c).*

Fig 6. Diagram of firebreak strip.

Source: Own elaboration



- V** Pickling or road strip; bordering the peri-urbanised area. Bearing capacity of the road: 2000 kp/m².
- Bd** Clearing strip or natural area free of vegetation.
- Ba** Auxiliary strip with tree cover of no more than 20%, devoid of undergrowth and every 3 metres.

Fig 7. Current (top) and proposed vegetation structure (bottom)

Source: Own elaboration

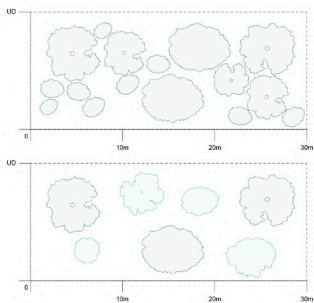
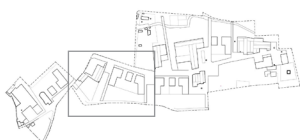


Fig 8. Faja perimetral: esquema de bandas y relación con el espacio urbano.

Fuente: Elaboración propia

- Zona forestal (TFE)
- Faja perimetral (30m)
- Vial (V)
- Banda desbroce (Bd)
- Banda auxiliar (Ba)
- - - Zona de afección (100m)



Definition of the proposal

Treatment of the perimeter strip

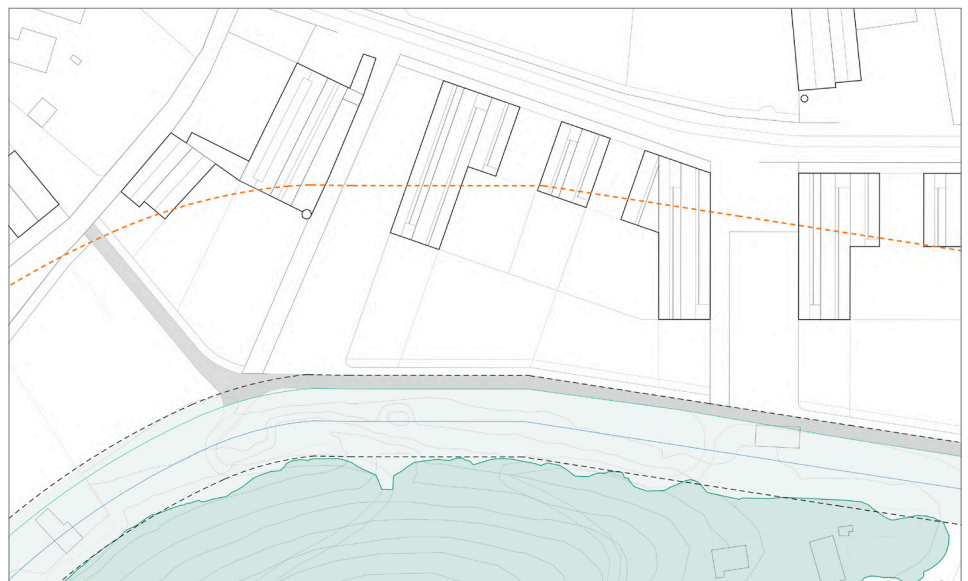
A perimeter protection strip is proposed between the urbanised area and the forest land of Monte Algar corresponding to an order two firebreak area that will be integrated into the urban area without affecting forest land. The minimum width will be 30m as Monte Algar has a slope of less than 30% on its lower slope (between 15-25%), in accordance with the slopes set out in the PLPIF. The design of the firebreak strip is made up of the following strips: stripping strip or road (5m), clearing strip (12m) and auxiliary strip (13m). This protection strip must also include the installation of perimeter hydrants as part of the water supply network for the new neighbourhood.

Treatment of urban green areas

Species in urban green areas within 100m of the forest area will be specifically maintained to limit the spread in case of fire. The vegetation cover of green areas with tree and shrub species shall be limited to a maximum of 40% of their surface area. Within them, trees shall be regularly pruned to 2/3 of their height and vegetation shall be prevented from coming into contact with buildings, with a minimum distance of 3m.

Treatment of the peri-urban forest area

It is proposed to manage the peri-urban forest area of Monte Algar with preventive forestry treatments aimed at reducing the flammability of the forest mass without altering its bioclimatic potential. This management will focus on: optimising forest density with training pruning and modifying the structure of the vegetation by altering different species and plant formations in mosaic. It is recommended that hardy native species be introduced to complement the existing pine, carob and holm oak trees, such as ash (*Fraxinus ornus*), *Viburnum tinus* or laurel (*Laurus nobilis*); and pyrophytic species such as rosemary (*Salvia rosmarinus*) and rockrose (*Cistus sp.*)





INTERVENTION PROPOSAL 3.3.

Sustainable urban drainage and stormwater reuse

Related milestones:

Investee directives:

D3.3.

The area of Els Rajolars is affected by the risk of pluvial flooding caused by heavy surface runoff aggravated by the topography of the site and the high impermeability of the soil. On the other hand, the effects of climate change put Oliva's underground water resources at risk: a decrease in the filling rate and an increase in its exploitation, which means that sustainable alternatives must be sought to meet the demand for water.

In this context, urban land planning requires a compulsory urban drainage system in new urban developments, which at the same time makes it possible to clean and reuse part of the volume of water collected. Conventional drainage systems generally prevent the infiltration of water into the ground and are limited to collecting and conveying the flow from the streets to nearby treatment plants for future treatment. Sustainable drainage systems, on the other hand, ensure a higher rate of water infiltration into the ground, help to improve the recharge rate of aquifers and allow the decontamination of water at source for immediate use.

Procedure

The risk of flooding due to surface runoff will have to be addressed through the drafting of a flooding study associated with the Riuet ravine basin. This study, once approved by the Department of the Environment and the River Basin Authority, will enable a sustainable urban drainage strategy to be drawn up in accordance with the problem.

This study will be taken into account in the future Special Plan for the development of the area in order to plan the separate sewerage infrastructure, which is currently lacking in the area, and which will have to be connected to the future network of Ciudad Jardín, the urban area and the future WWTP. This network, both its layout and the chosen systems, will have to be approved by the River Basin Authority and the Department of Public Works by means of a prior report.

Once the new planning has been approved, work will begin on the urban development of the SUDS network, which will form part of the Urban Development Project for the Els Rajolars complex. This project will take into account the strategy and design criteria set out in this document.

In parallel, in order to improve Oliva's resilience to torrential rains, it is recommended that the drafting of a strategic action plan to improve urban drainage be considered. This plan would involve a general management of the drainage system, with specific preventive measures that would serve as a basis for a specific ordinance to promote the use of SUDS.

Eligible cost

Subsidies from Order 13/2017 of the Regional Ministry of Ecological Transition can finance the execution of water supply, sanitation and flood defence works.

Type of tasks to be performed:



Drafting of regulations



Drafting of projects



Public works execution

Estimated eligible cost*

Sustainable urban drainage systems

520 mil€

60 mil€ 460mil €

Total material cost

Eligible cost

*Costs of similar projects are estimated

Definition of the proposal

Functional approach to SUDS: climate, geology and topography





The choice of the sustainable urban drainage system (SUDS) must respond to both the physical and climatic conditions of the area of action. Oliva's climate is characterised by two seasons: one wet and one dry. The SUDS system must respond to both situations by trying to mitigate the runoff produced with the

The rainfall favours the infiltration of water into the ground and stores part of the volume of water for future use in times of drought.

The SUDS system must also be adapted to the geology and topography of the area, as the choice of components will depend on the slope of the terrain and its permeability. The types of terrain in the area are: impermeable, permeable and a strategic aquifer recharge area. In parallel, and in order to reverse the current situation, it is proposed to recover the natural topography of the terraces, which limits the flow of the stream, controls its speed and allows the collection areas to be optimised. Depending on these conditioning factors, the area is divided into three zones, where the different hydrological functions of the SUDS intervene:

Fig 9. Geological areas and rainwater runoff courses. Zoning of SUDS to be implemented

Source: Own elaboration according to COPUT cartography.

-  Impermeable soil, clays (Z1)
-  Permeable soil, pebbles, gravels and sands (Z2)
-  Strategic aquifer recharge area (Z3)
-  Stormwater runoff

Z1	Z2	Z3
X	X	X
X	X	X
		X
X	X	
	X	X

Filtration: retention of sediment present in rainwater by passing runoff through porous media.

Detention: temporary storage of runoff, thereby reducing peak flows and promoting sedimentation.

Treatment: physical and biological processes to metabolise pollutants in runoff and improve its quality.

Accumulation: medium-term storage of runoff for non-potable uses.

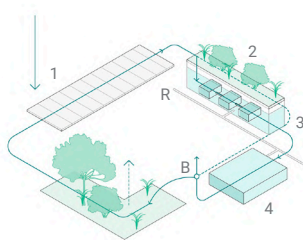
Infiltration: vertical flow and aquifer recharge is encouraged, allowing runoff to flow through the subsoil.



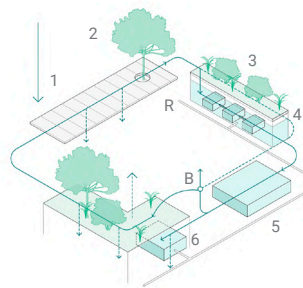
Fig. 10. Functional diagrams of SUDS system by zones.

Source: Own elaboration

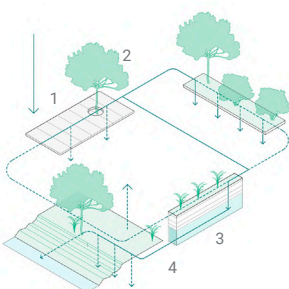
- Filtration
- Detention/Laminating
- Treatment
- Stored
- Infiltration
- R General separative network
- B Irrigation pump



- 1. Permeable pavement
- 2. Permeable trench
- 3. Lamination tank
- 4. Storage tank (cistern)



- 1. Permeable pavement
- 2. Structural flower bed
- 3. Permeable trench
- 4. Lamination tank
- 5. Detention Depot
- 6. Infiltration tank



- 1. Permeable pavement
- 2. Structural flower bed
- 3. Filter trench
- 4. Natural infiltration area

Typical situations and devices

The SUDS system aims to manage and make use of rainwater, taking up the natural processes of the water cycle. This water is collected mainly through the roofs of the buildings, for which a system for collecting and storing water in an underground tank is proposed, and in the form of surface runoff on the pavements. For the latter, a series of devices are pre-selected to meet the functionalities of each of the aforementioned areas. Three typical situations are therefore presented, one for each zone, whose functional scheme responds to a specific strategy: storing water for future uses and infiltrating water into the ground.

SUDS Zona 1: Terreno Impermeable (arcilla)

When the ground is not permeable, its capacity to infiltrate water is very reduced, so in these cases a SUDS network is proposed that prioritises the storage of water for future use. Surface runoff will be collected in permeable pavements with a total water conduction system under the pavement, without infiltration into the ground, which will direct it towards the permeable ditches. These ditches have a series of small buried lamination tanks where the water previously filtered in the ditch is stored. The water fills the chain of tanks successively while being cleaned by sedimentation. Finally, the collected water is stored in a cistern or buried accumulation tank which will have, on the one hand, a spillway connected to the separative network to prevent overflows and, on the other, a pump to extract the water to the surface and use it for future purposes, such as irrigation.

SUDS Zona 2: Permeable terrain (cobbles, gravels and sands)

When the land is permeable, a SUDS system is proposed to contribute to water infiltration, while at the same time seeking to store part of this water for future use. In this case, elements such as structural tree surrounds and permeable paving with partial conduction will be used to collect surface runoff and infiltrate it into the ground. The unabsorbed water will be transferred to the filter trenches with sheeting tanks that will convey the flow to a first water detention tank where it will be temporarily accumulated for future use. This tank will be connected to a second tank, this time an infiltration tank, which will collect the excess water from the first, to avoid overflows, and slowly infiltrate it into the ground.

SUDS Zona 3 : Strategic aquifer recharge area

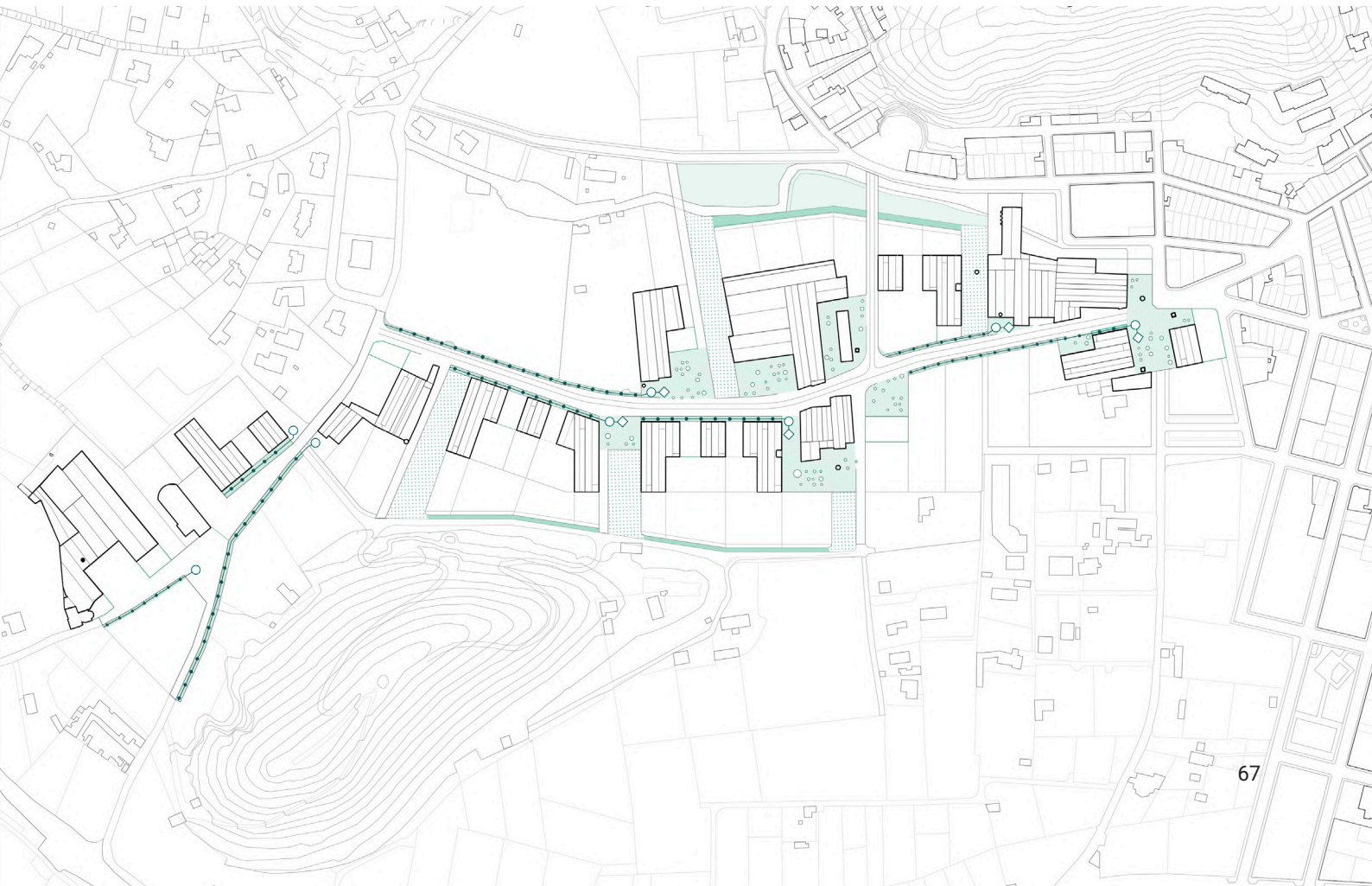
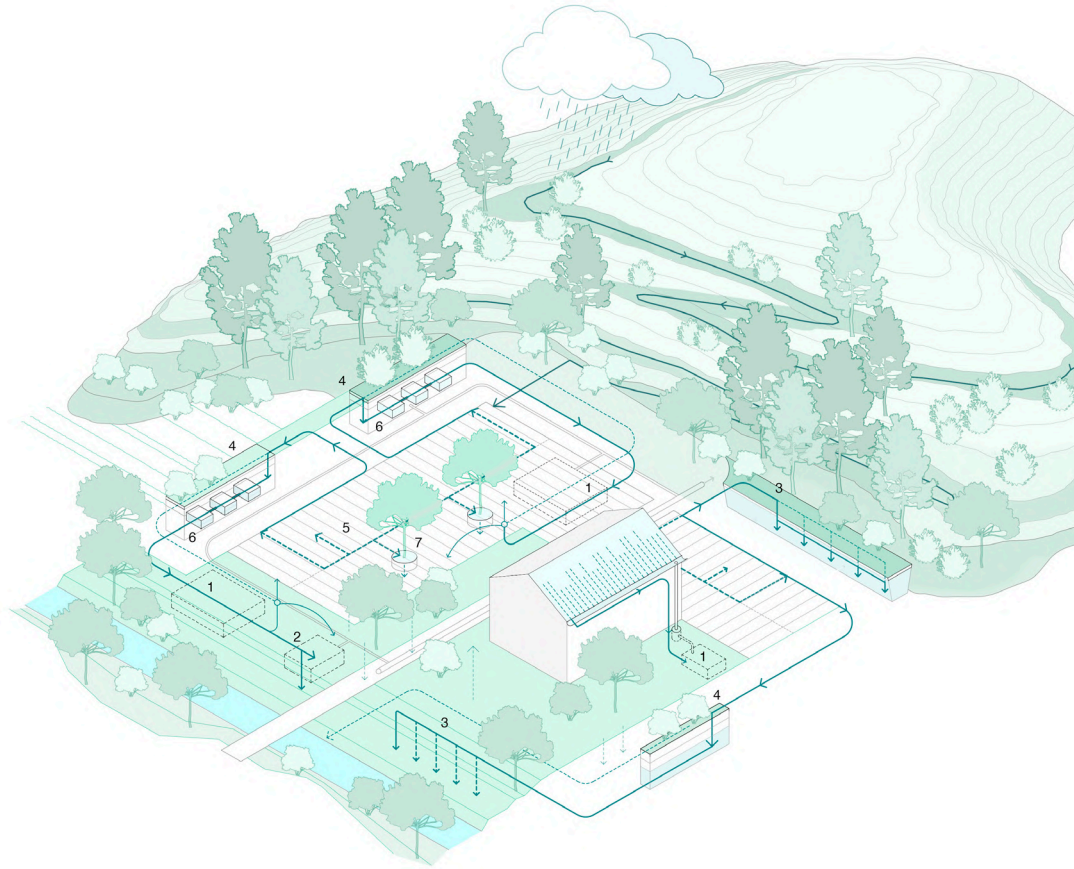
In strategic aquifer recharge areas, the aim is to infiltrate as much water as possible into the ground, thus avoiding accumulation. Dirty water from the street is conveyed and filtered through the permeable pavements and structural gutters before infiltrating into the ground. The green zones proposed within this area are topographically designed to redirect part of the water that they do not manage to absorb to filtering ditches and natural infiltration areas. These specific areas are intended to function as natural infiltration reservoirs which, in the rainy season, will gradually allow the absorption of water and the gradual recharge of underground aquifers.

Fig 11 (top). Principle diagram of the SUDS system.

Fig 12 (below). Implementation of SUDS in the area..

Source: Own elaboration

- Underground water storage tank (1)
- ◇ Ground water infiltration reservoir (2)
- ⊕ Natural infiltration areas (3)
- Filter trench (4)
- ▨ Permeable paving (5)
- Water lamination tanks (6)
- Structural flowerbeds (7)





INTERVENTION PROPOSAL 3.4.

Renaturalisation of the Riuet dels Frares ravine





Related milestones:

Investee directives:
D3.4.

The area is affected by a fluvial flood risk due to the presence of the Riuet dels Frares ravine, a highly modified natural watercourse that drains water in floods caused by rainfall. Its alluvial basin is attributed a flood risk of level 7 of geomorphological danger in the event of future floods (return period T=500 years), according to the PATRICOVA mapping. In order to reduce this risk it is proposed to incorporate the effect of the ravine within the new development, guaranteeing the corresponding demarcation of the riverbed and its protection as Public Hydraulic Domain (DHP). In addition, the hydrological-forestry restoration of the gully bed is proposed which, as well as helping to mitigate future floods, restores the natural order of the bed and exploits its great ecological potential.

Procedure

Type of tasks to be performed:

-  Drafting of regulations
-  Drafting of projects
-  Public works execution
-  Consultations and grants

Firstly, the delimitation of the Riuet dels Frares ravine will have to be processed by submitting a study of the riverbed to the River Basin Authority, including a topographical survey and a hydrological and hydraulic study. In this way, the Public Hydraulic Domain of the riverbed will be obtained, with its associated preferential flow zone, police zone and easement zone. It will also be advisable to have a Flood Study approved by the Department of the Environment and the River Basin Authority to determine in detail the areas at risk of flooding.

The future Special Plan for the development of the area must consider the impact of the ravine both in its development plans, establishing a strip free of building along its course, and in its regulations applicable to the uses and buildings permitted in accordance with the application of the RD Public Hydraulic Domain. This Special Plan must be approved by the River Basin Authority of the Júcar Hydrographic Confederation by requesting a prior report and must have a favourable environmental and territorial strategic assessment in view of the risk of flooding.

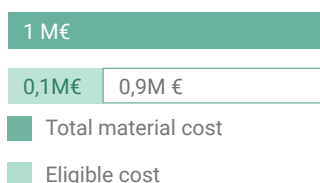
Once approved, a Gully Basin Restoration Project will be required, including the necessary measures to reduce the risk of flooding. The works will take place in the DPH, so it will also be relevant to have the approval of the River Basin Organisation. Finally, both the gully protection area and the associated flood zone will have to be included as urban green areas in the General Plan and will become part of the local green infrastructure.

Eligible cost

The Plan Verdea must be requested for the creation of green spaces for the renaturation of urban land and/or the recovery of unused urban spaces for their greening. At the same time, the project can be presented to the Phy2SUDOE Organisation with the possibility of ceding the hydraulic domain space as a pilot plot for the implementation of land regeneration projects.

Estimated cost*

Renaturalisation of the bed of the Riuet dels Frares ravine



*IVE 2023 construction ratios are estimated for green areas with lighting (41€/m2c).

The new urban park could be integrated as a component of the local green infrastructure and as a green area in the new development.

Definition of the proposal










Recovery of local Green Infrastructure element

In this area, the renaturalisation of the ravine is proposed through the recovery of its alluvial plain and riverside vegetation. This new fluvial park, as a natural environment, would be integrated as a component of the local Green Infrastructure and as a green area in the new development. The creation of this park is proposed with the following objectives:

- **Reduce the risk of flooding.** With the delimitation of a protection strip free of buildings around the bed of the ravine, which in turn incorporates the flood zone, to mitigate the risk of flooding associated with its basin. In addition, the creation of the new green area around the gully will increase the permeability of the basin, redirect runoff and improve water infiltration into the ground. Also, in order to prevent future floods, the nature of the riverbed will be modified, widening its width and revegetating its banks as a green protection strip.
- **Recover its ecosystemic value.** With the regeneration of the riverside ecosystem of the ravine which, due to its condition as a natural wetland, guarantees the resilience of native plants without requiring much maintenance or irrigation and serves as a habitat for a wide variety of species. Its position is strategic to serve as an ecological connector between the different components of the Green Infrastructure such as the adjacent forest ecosystems of Monte Algar and Santa Ana.
- **Improve the environmental quality of the urban environment.** Mitigating the effects of climate change by integrating the ravine and riverside vegetation with the neighbourhood's public space. The vegetation helps to combat the heat island effect by regulating temperature and humidity as well as improving air quality by absorbing CO2. The creation of this space is also an opportunity to guarantee a new place for quality leisure and social recreation.

Fig 13. Green infrastructure and flood areas in the surroundings of the urban area.

Source: Own elaboration

-  Flood-risk areas
-  Riuet dels Frares ravine renaturalisation area
-  Urban green areas
-  Coastal agricultural area
-  Wetland areas
-  Forest land
-  Wooded areas
-  Watercourses
-  Livestock trails

1. Riuet dels Frares Ravine
2. Alfadalí River
3. Monte Algar (TFE)
4. Mount Santa Ana
5. Tossal de a Creu mountain (TFE)

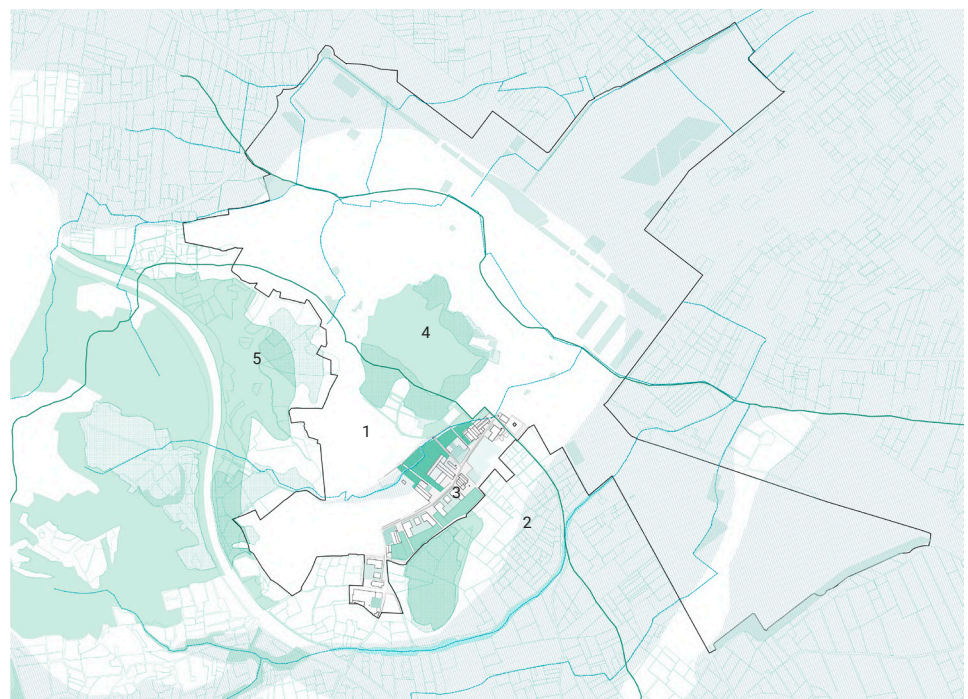
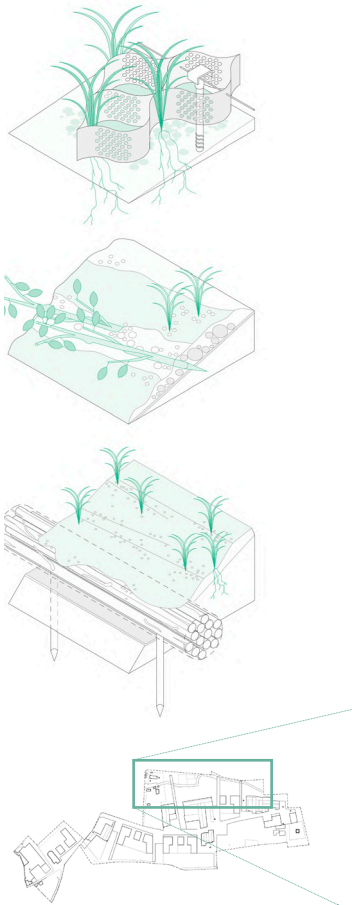


Fig 14. Bioengineering techniques.

- (1)Hydroseeding in geocells
- (2)Pegs
- (3)Hillside fajinas.

Source: Own elaboration



Reclamation of the floodplain: topographic remodelling

A topographical remodelling of the gully basin is proposed in order to recover the alluvial plain of the gully. To this end, the natural hydrodynamics of the channel will be restored by breaking up the concrete basin of the gully and the sealed soil within the strip protection. Once the permeable surface has been recovered, earthworks will begin with the aim of reducing the risk of flooding in the basin: rain and river.

It is proposed to create a park with terraces descending from the urban area, redirecting surface runoff to the ravine bed and thus diverting part of the flow of the main roads during the rainy season. A constant and controlled slope is sought to reduce the speed of the water and facilitate its infiltration. On the other hand, it will be advisable to widen the bed of the ravine to an optimum size to prevent future flooding. This modification of its cross-section will be accompanied by the creation of plains that function as lamination areas in the most exposed areas of the channel. These measures will restore the natural course of the water.

Finally, the banks of the riverbed will be stabilised and the topography generated will be contained. It is proposed to use bioengineering techniques that are committed to the natural conservation of the riverbed by means of vegetation and at the same time ensure the renaturalisation of the area. In the riverbed, a combination of covering techniques such as hydroseeding and stabilisation techniques such as staking is recommended, depending on the slope to be treated. For the containment of the terraces, slope strips are proposed to allow the planting of plant species, paths and meadow areas and to integrate the necessary drainage systems. In areas with steeper slopes, other slope containment solutions such as green walls will be chosen.

Fig 15. Riuet dels Frares ravine. Current state (above) and reformed state (below).

Source: Own elaboration

- Sealed floor
- Renaturalised soil
- ⋯ Watercourse protection area
- ⋯ Flood zone
- ⊕ Coating techniques
- ▨ Containment techniques (F: fences; M: green wall; E: staking)
- Laminating area



Restoration of riverbank vegetation

Fig 16 (above). Typical section of the gully with the selected species.

Source: Own elaboration

- Propagation by seed
- Propagation by staking

Fig 17 (below). Park in ravine protection area above flood zone.

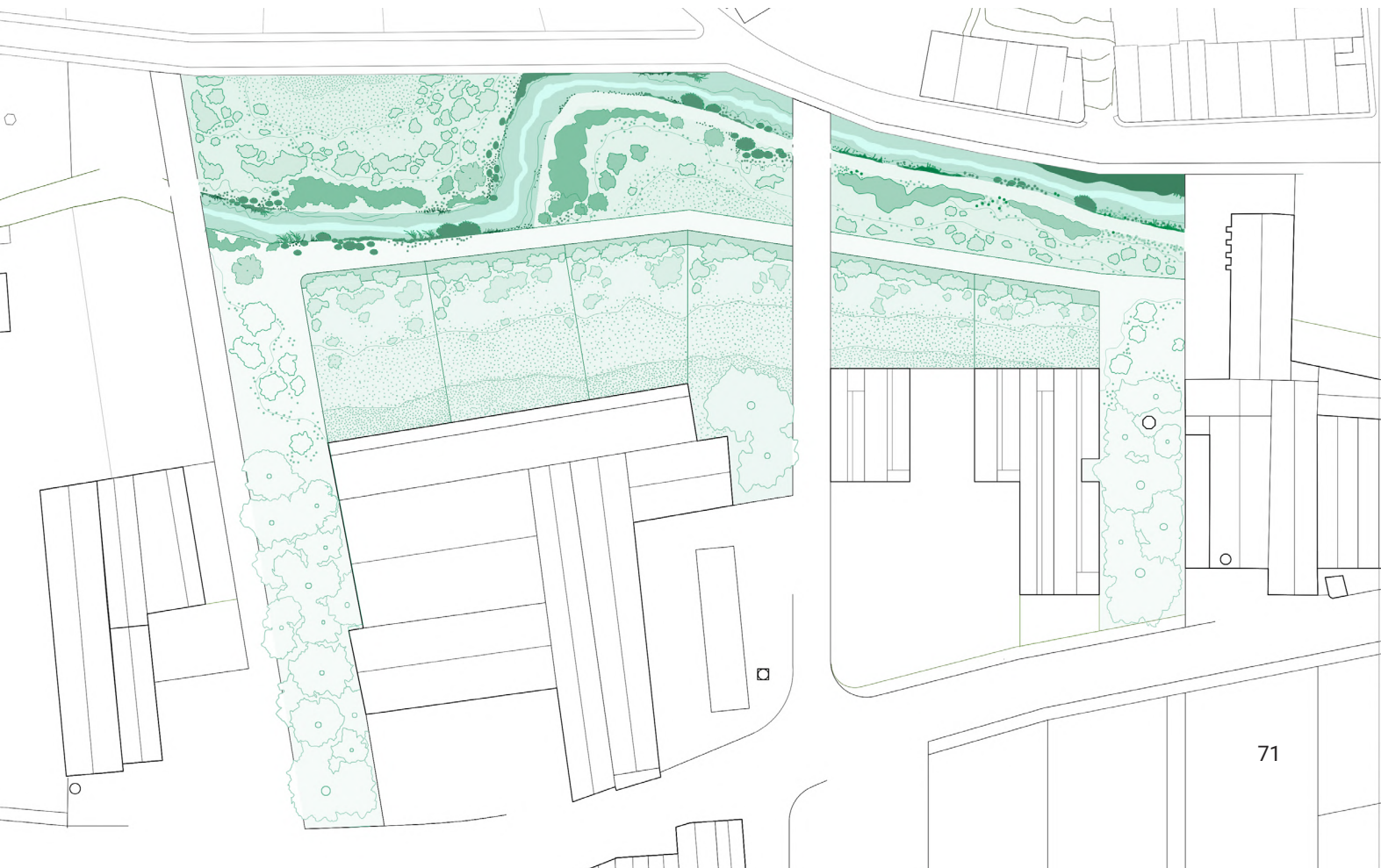
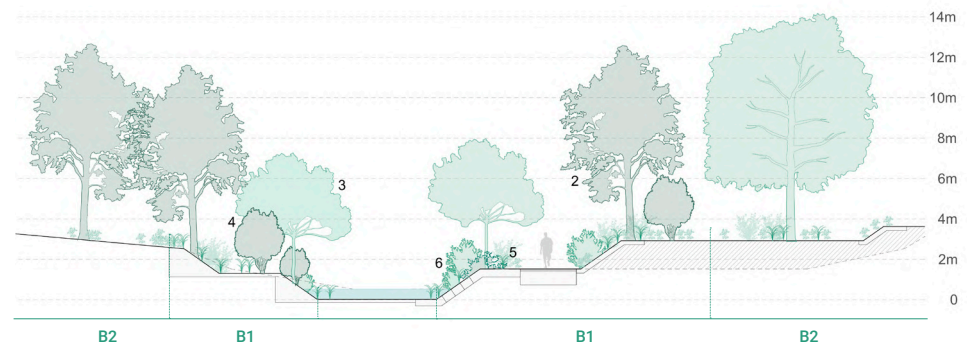
Source: Own elaboration










Riverbank vegetation has an undoubted environmental value, being in general well-differentiated formations characterised by their high biological diversity, high productivity and the high dynamism of the habitats they contain.

It is proposed to restore the riverbank with plants adapted to the conditions of the site to guarantee the success of the afforestation and the evolution of the new populations. Species that have naturally invaded some areas of the riverbed such as ash (*fraxinus angustifolia*), mastic (*pistacia lentiscus*) and ivy (*hedera helix*) will be used as a reference, in combination with others that are also recommended for natural regeneration. The selected species will be distributed in two bands: the first will be made up of flexible shrubs that are resistant to flooding and have a high regenerative capacity, while the second will contain trees whose roots can easily reach the water table. For planting, the most appropriate propagation method for each species shall be used: by seed or by staking.

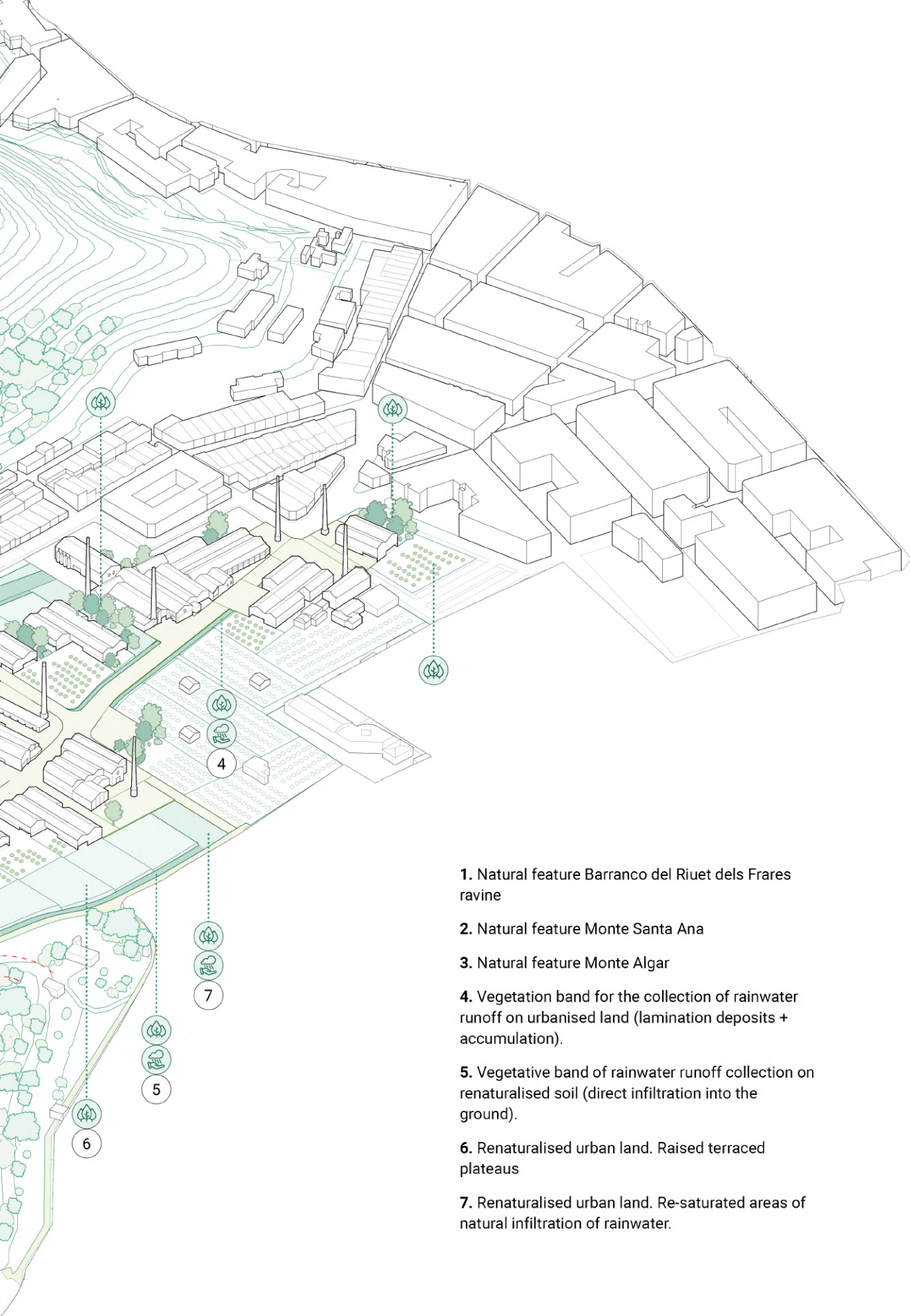
Listado de especies:

1. Hackberry. *Celtis australis*
2. Ash.. *Fraxinus angustifolia*
3. Oleander. *Nerium oleander*
4. Laurel. *Laurus nobilis*
5. Ivy. *Hedera helix*
6. Mastic. *Pistacia lentiscus*



-  Paved public open space
-  Urban Green Zone
-  Renaturalised urban land
-  Vegetated rainwater runoff collection strip
-  Private open space
-  **P2.1.** Network of Green Zones and ecological connectors
-  **P2.2.** Firebreak strip
-  **P2.3.** Sustainable Urban Drainage and Rainwater reuse of rainwater
-  **P2.4.** Renaturalisation of the Riuet dels Frars ravine of the Riuet dels Frares





1. Natural feature Barranco del Riuet dels Frares ravine

2. Natural feature Monte Santa Ana

3. Natural feature Monte Algar

4. Vegetation band for the collection of rainwater runoff on urbanised land (lamination deposits + accumulation).

5. Vegetative band of rainwater runoff collection on renaturalised soil (direct infiltration into the ground).

6. Renaturalised urban land. Raised terraced plateaus

7. Renaturalised urban land. Re-saturated areas of natural infiltration of rainwater.





PART II

PROCEDURE FOR ACTION

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Procedure

The implementation of the proposals of the Master Plan in Els Rajolars requires a clear plan of action that sets out the main tasks to be carried out by the town council and organises them over time. To this end, a chronogram of action is proposed that graphically illustrates the procedure to be followed and where each of the tasks is listed in accordance with the following:

- **Phases of development.** The order of the tasks is proposed in a temporal sequence of three main phases: preliminary studies, drafting of the planning figure and its implementation through the execution of the action units. Each of these phases will be conditioned by the evolution of the PEPRI (Special Protection and Interior Reform Plan), first phase ends with the initial approval of the strategic plan document and the third phase begins with its final approval.
- **Thematic.** The tasks are organised vertically in five thematic blocks, which coincide with the content of the Master Plan. The three strategic axes (functional environment, built environment and environmental networks) are represented with each of their associated projects in such a way that reading them horizontally describes the sequence to be followed for the implementation of each of them. There is also a single row representing the tasks related to Urban Planning and a similar row for the Communication Plan.
- **Hierarchy.** The proposed tasks are divided according to their importance within the overall scheme of action. There are essential tasks that must be carried out in order to complete the correct implementation of the proposal. Other tasks are qualified as recommendable, they help to carry out the main tasks or complement them. And finally, in the last degree of importance, there are the optional tasks. This hierarchy is represented in the timeline by a code assigned to the coloured bars.
- **Type.** Tasks are classified under seven different headings that are related to the nature of the task. There are tasks that have to do with a specific administrative management that can be differentiated from others whose objective is the drafting of regulations or the execution of a public work. Each type corresponds to an icon in this document.

1. TIMETABLE FOR ACTION

Overall, we understand that the action procedure must be integrated, i.e. it must simultaneously respond to each of the aspects of the field (each of the strategic axes) through the combination of the corresponding tasks.

All of this within the framework of the processing of the planning figure that will manage this development, the PEPRI, which will mark the timescales, as many intervention tasks in the area cannot be carried out until its definitive approval is obtained. This will also happen the other way round, as a large part of the reason for the preliminary work (Phase 1) is to provide relevant information to the initial strategic document of the PEPRI and, therefore, to be the key to its initial approval.

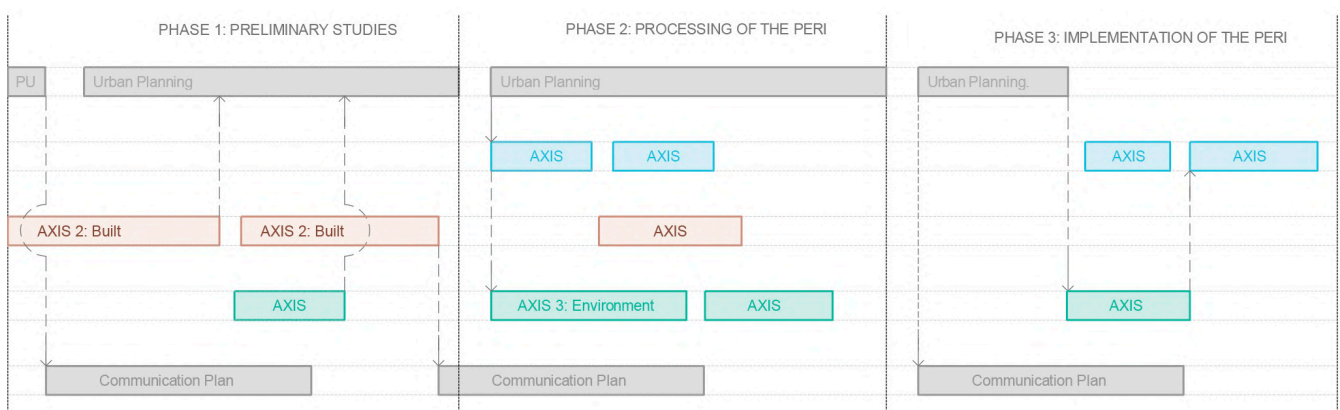
Each of the strategic axes of the proposal encompasses a series of essential tasks, or milestones, to achieve each of the objectives. On the functional side, the tasks have to do with enabling the implementation of the strategic uses: the Vocational Training Centre and the Interpretation Centre. In addition, it will be necessary to contribute to the institutional promotion of the new urban development, as well as the attraction of the population with the inclusion of Els Rajolars in the Strategic Tourism Plan. In terms of heritage, the industrial complexes that make up the urban landscape of Els Rajolars should be protected as soon as possible by including them in the Catalogue of Protections and in the General Inventory of Heritage (IGPCV). In addition, their past should be compiled in a historical archive and disseminated through a museum exhibition in Els Rajolars. With regard to the environment, it is necessary to proceed to the normative regulation within the new management of natural risks with the demarcation of the Riuet dels frares ravine and the incorporation of the new urban-forestral interface of Mount Algar into the PLPIF.

Tasks in different blocks may be related to each other and are recorded as such in the chronogram. For example, the urbanisation works of phase 3 will condition the start of the building works of the proposed projects: training centre, interpretation centre, housing blocks...etc.

Fig 12. Schematic of the timetable for action.

Source: Own elaboration

In order for the action plan and the tasks to be carried out to be disseminated through the media, a joint and simultaneous communication plan is proposed, in which all the milestones of the procedure will be presented as the implementation of the procedure progresses.



2. PHASES OF DEVELOPMENT

Phase 1: Preliminary studies and work

During this first phase, both the specific modification of the General Plan of Oliva and the PEPRI will be processed jointly. This will include the work to be carried out for the preparation of the initial drafts of the planned plans and those tasks that can be carried out prior to their approval. This phase ends with the issuing of the strategic Environmental and Territorial Report by the Department of Town Planning. The milestones to be highlighted in this phase are the following:



Specific modification of the PGOU of Oliva. It will be necessary to process the specific modification of the General Plan for the Area for the Substitution of Buildings and Uses. Due to the conditions of the area, the review and approval of both the Department of Town Planning and the Department of the Environment and Heritage will be required prior to the official approval of this modification. The PEPRI may be processed simultaneously but will depend on the first for its approval.



Preparation of the initial strategic document of the PEPRI. The content of the initial document will be drafted and the Strategic Environmental and Territorial Report required by urban planning legislation will be requested. Many of the tasks assigned to this phase are aimed at completing the information on the area set out in the Master Plan that will form part of this document.



Extend the Catalogue of Protections of Oliva. The industrial complexes should be included in this catalogue as Assets of Local Relevance, in order to ensure their protection in addition to the files corresponding to the landscape units detailed in this document. Subsequent to the approval of the catalogue, the BRL should be included in the General Inventory of Heritage of the Valencian Community (IGPCV)



Delimit the course of the Riuet dels frares ravine. The course of the ravine must be delimited and its protection area delimited, consisting of the easement zone, preferential flow zone and police zone, in order to correctly apply the RD of the Public Hydraulic Domain. This will be carried out through the Linde Project, in accordance with the procedure established by the Júcar Hydrographic Confederation (CHJ).

















Creation of the historical archive of Els Rajolars. Work will be carried out to re-compile documentation and testimonies, apply for permits to exploit the material acquired, create a digital archive and publish it in the future. The town council may allocate its own resources or consider collaboration with other institutions.



Disseminate the content of the Master Plan. The work carried out in Els Rajolars should be publicised through the City Council's own media (website, social networks, local press, etc.) by contracting a company specialised in publicising the content of this Master Plan and its background.

Fig 13. Action schedule: Phase 1 (Next page).

Source: Own elaboration

-  Strategic axis 1
-  Strategic axis 2
-  Strategic axis 3
-  Task essential Task
-  Recommended Task
-  Opcional task
-  Grant application
-  Regulatory drafting
-  Implementation of public works
-  Institutional promotion
-  Project drafting
-  Internal management
-  Consultations and grant applications
-  Acquisition of real estate

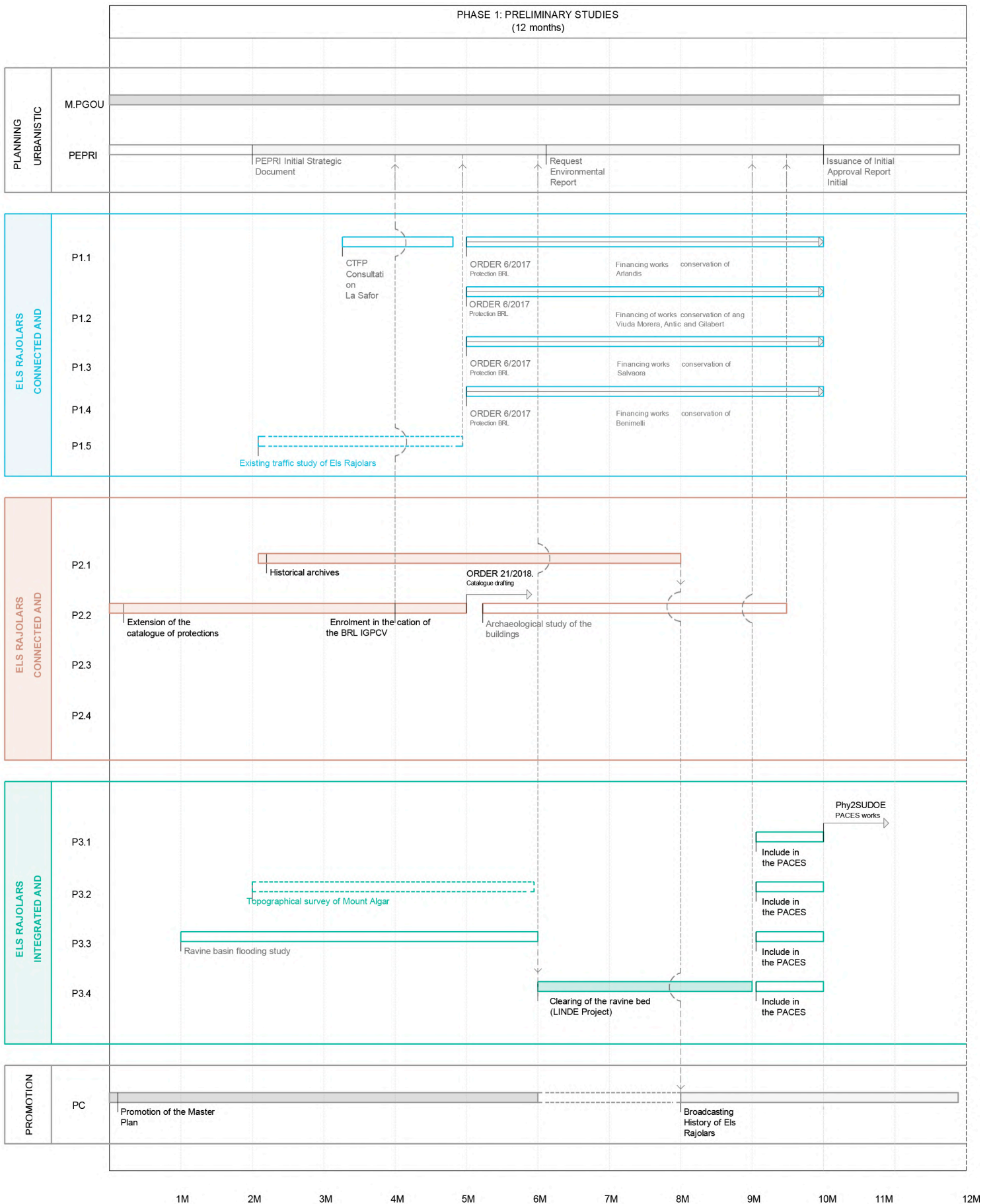


Fig 14. Action schedule: Phase 2 (Next page).

Source: Own elaboration

Phase 2: Processing of the Special Plan for Protection and Reform Interior

The second phase begins with the drafting of the final document of the PEPRI and its corresponding Environmental Study in accordance with the report of the Conselleria de Urbanismo and ends with its final approval, which will be conditioned by the approval of the modification of the PGOU. During this phase, the Town Council will continue with the protection work begun in the previous phase, with the Order for the protection and conservation of the BRL and its monitoring. It will also be possible to initiate pilot actions within the Els Rajolars area. The milestones to be highlighted in this phase are the following:



Registration in the Cooperation Plan. The City Council must be part of this Plan and request authorisation from the Regional Ministry of Education to set up the Vocational Training Centre. It will have to present with it a report in the form of a preliminary project that includes the technical description of the action and the foreseen budget in accordance with the MBE price base.



Incorporate the Els Rajolars area into Oliva's Strategic Tourism Plan. The industrial complexes, protected as BRL, should form part of the municipality's tourist offer. To this end, the information contained in the Master Plan will be completed with the information corresponding to this area and both maps and related web content and social networks will be updated.



Apply for recognition as a permanent museum collection. It is proposed to present the documentation produced in the Historical Archive as a permanent museum collection as it encompasses the memory of the place and meets the established requirements: "it brings together goods of historical, artistic, scientific and technical value, or of any cultural nature". The proposed collection must be supported by the report of a competent technician. In addition to the content, this application will require a proposal for the exhibition space with the technical report of an architect. The application must be addressed to the Regional Ministry of Culture, Education and Science, which will decide on the application with the approval of the Directorate General of Valencian Cultural Heritage.

















Incorporate the Els Rajolars area into the Oliva Local Forest Fire Prevention Plan. With the initial approval of the new development, it will be possible to proceed to commission the revision of this protection plan, which will incorporate the necessary preventive measures to be implemented in the new urban-forest interface. These measures will be taken into account in the PEPRI ordinances.



Project to restore the bed of the Riu dels Frares ravine. Once the course of the gully has been demarcated, the River Basin Authority will expropriate the land from the residents of Els Rajolars and this land will become part of the Public Hydraulic Domain (DPH), so that any work to be carried out in the gully must have the approval of this body. To this end, a detailed project must be entrusted to a responsible technician and the proposal must be submitted to the CHJ.



Promotion of the urban development operation. It is essential to publicise the urban renewal proposal for Els Rajolars with the initial approval of the PEPRI.

-  Strategic axis 1
-  Strategic axis 2
-  Strategic axis 3
-  Task essential Task
-  Recommended Task
-  Opcional task
-  Grant application
-  Regulatory drafting
-  Implementation of public works
-  Institutional promotion
-  Project drafting
-  Internal management
-  Consultations and grant applications
-  Acquisition of real estate

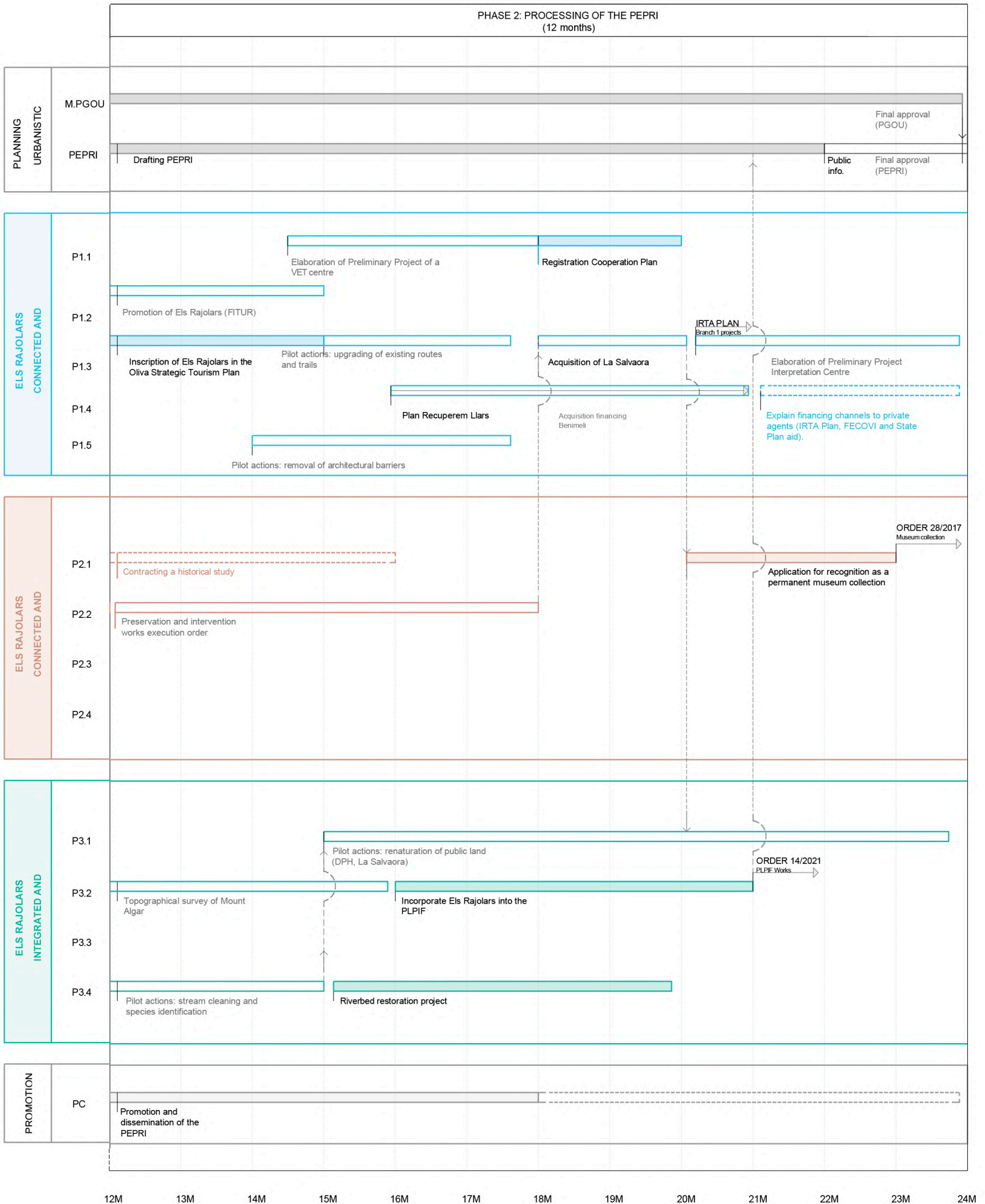
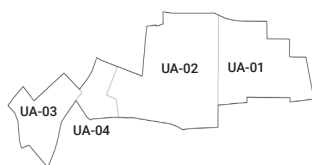


Fig 15. Timetable for action: Phase 3.(Next page)

Source: Own elaboration

Fig 16. Proposed action units.

Source: Own elaboration



- Strategic axis 1
- Strategic axis 2
- Strategic axis 3

- Task essential Task
- Recommended Task
- Opcional task
- Grant application

- Regulatory drafting
- Implementation of public works
- Institutional promotion
- Project drafting
- Internal management
- Consultations and grant applications
- Acquisition of real estate

Phase 3: Implementation of the PEPRI in Action Units

The third phase begins with the definitive approval of the planning figure for the Els Rajolars area after complying with the period of public information and favourable vote in the plenary session of the Town Council. Once approved, the implementation of the PEPRI will be carried out through the sequenced development of four execution units in a regime of integrated or isolated actions. To this end, corresponding action programmes will be required that comprise one or several execution units and plan their urbanisation and management.

At the same time, it will be necessary for the City Council to create a Commission to establish the most appropriate urban development entity, with the participation of both the affected owners and other agents who wish to take part in the action. It is considered preferable for the City Council to manage the project directly, with the payment of urbanisation fees by the owners through the cooperation system. The milestones to be highlighted in this phase are the following:



Drawing up the Integrated Action Programme. This document will incorporate the legal-economic proposal and the technical alternative that will allow the management of the physical and legal transformation of the affected properties and the complete urbanisation of the execution units. The joint management of UA-01, UA-02 and UA-03 is proposed, with the same programme that will allow the development and facilitate the financing of the common projects. The development of UA-04, with the equipment provided by the town council, is subject to the cessation of activity of the Antic-fang industry, so it is proposed to carry out an independent programme, in isolation, at a later date.



Drawing up public works projects. Competent technicians must be contracted to draw up the public works projects included in the SP-IP, such as the execution projects for the refurbishment of the warehouses for public housing and new facilities.



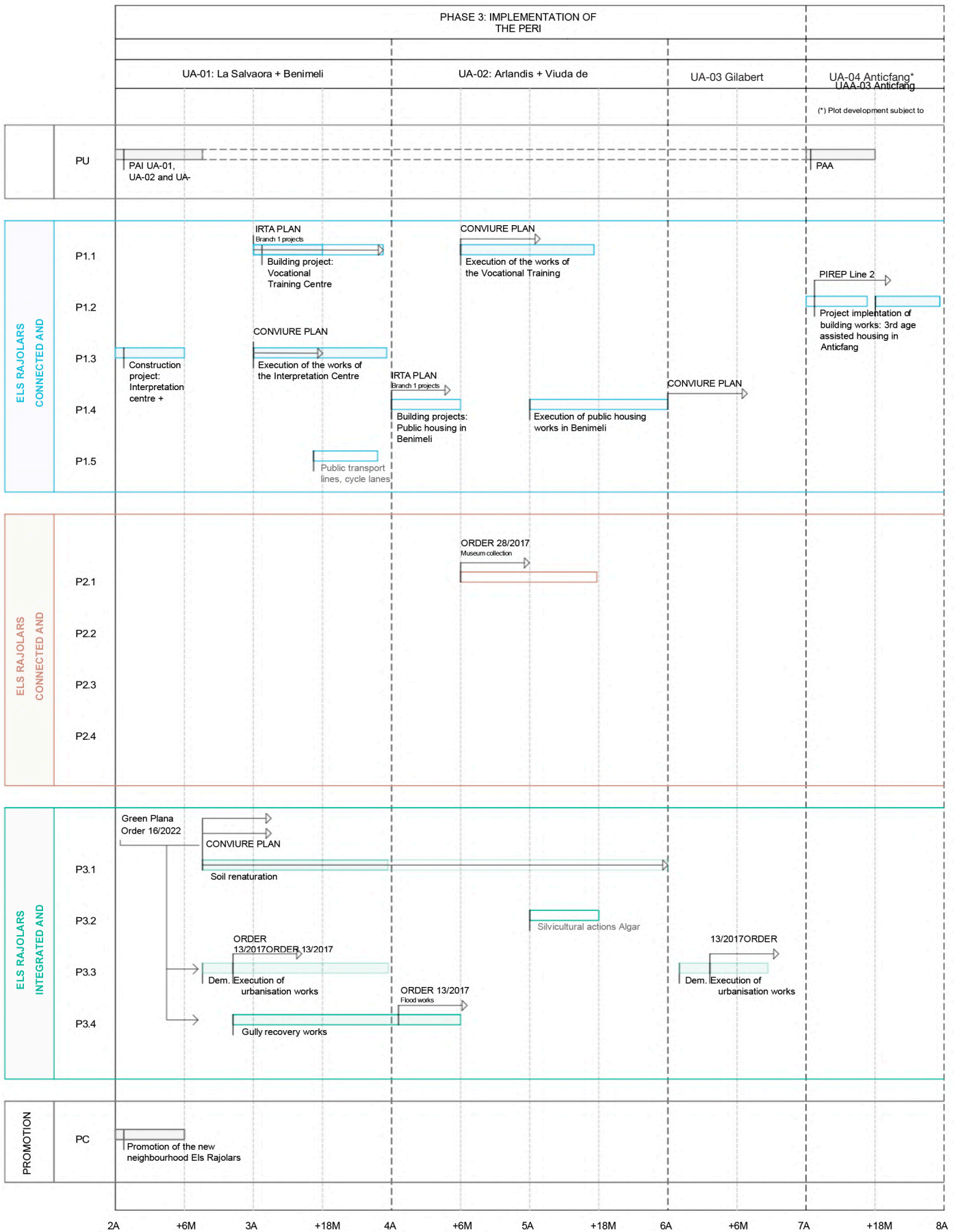
Execute the redevelopment works. The urban development works will be carried out once the aforementioned integrated action programme has been approved. These works will include the execution of the public space, which includes streets and squares as well as supply installations, trees and urban furniture. The council will assume part of the urbanisation costs resulting from the materialisation of urban elements that belong to the General Systems, such as the ravine park (as part of the primary network of public spaces in Oliva) or the sustainable urban drainage network (SUDS).



Execute the building works. As the redevelopment work progresses, the municipality will have to gradually carry out the renovation work of the heritage buildings that will result in the network of facilities and public housing. Once the redevelopment of the area has been completed, the private agents will be able to carry out the new building works.



Promotion of the new neighbourhood of Els Rajolars. Good institutional promotion by the City Council will be necessary to encourage public-private cooperation and attract external investment.





European ES



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D'OLIVA

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arquitectura