

LAYMAN'S REPORT

LIFE CITY ADAP³

Financing Cities Adaptation to Climate Change
through Public-Private Partnerships and Corporate
Social Responsibility



LIFE19 CCA/ES/001209





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PROBLEM ADOPTED

According to the United Nations Framework Convention, climate change is understood as a climate change attributed directly or indirectly to human activity, altering the composition of the global atmosphere and adding to the natural climate variability observed over comparable periods of time.

Climate change is already occurring and is expected to continue, the distribution of precipitation is changing and sea level is rising. In Spain and Italy average temperatures are rising by around 0.3°C per decade and natural water resources are declining in most basins. Although we manage to reduce the emissions that cause climate change, and thus avoid its worst consequences, these trends are expected to continue in the coming decades due to the inertia of the climate system.

These impacts are accelerated in urbanized areas, surrounded and full of infrastructure, where temperature, wind and precipitation show special trends. Many municipalities, including project partners, have local planning (Climate Action Plans and Sustainable Energy) that includes measures to adapt to the effects of climate change. However, funding to implement them is limited.



2

LIFE CITYADAP3: SOLUTION ADOPTED

LIFE CityAdaP3 has created public-private mechanisms to finance urban adaptation measures through the participation of local industries and companies from 4 municipalities (Spain and Italy), validating collaboration schemes that can be transferable and replicable at European level.

The objectives of the project were:



1

Involve the EU private sector in financing urban adaptation through the development of public-private cooperation schemes between businesses and local authorities; and through the integration of climate change adaptation into Corporate Social Responsibility (CSR) issues.

2

Improve the Covenant of Mayors by implementing the Sustainable Energy and Climate Action Plans (SECAPs).



For this, a solution was designed based on the following goals

1

Creation of models of public-private partnership agreements (PPPs).

2

Review of co-financers' CSR plans to include climate change objectives.

3

Implementation of adaptation actions in 4 EU municipalities (heat island effect, floods and landslides).

4

Promotion of green infrastructure and nature-based solutions.

5

Involvement of the private sector in the implementation of action plans.

6

Improved public awareness of the importance of adapting to climate change and mitigating its effects.

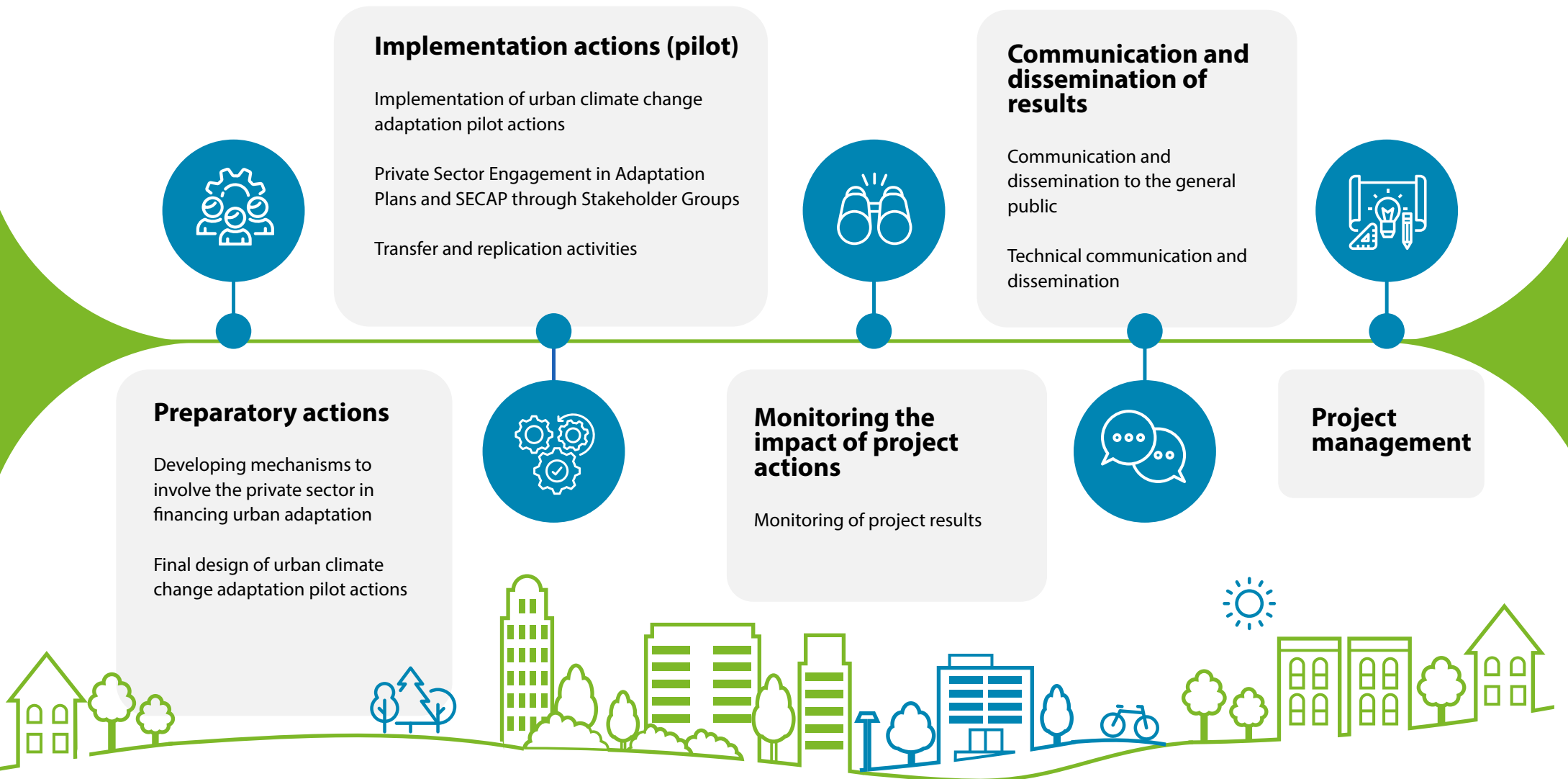


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ACTIONS



The project has been implemented from September 2020 to September 2024 mainly in 4 European municipalities: Alcantarilla, Lorquí and Molina de Segura in Spain, and Reggio Emilia in Italy. To meet the desired objectives and goals, it has been necessary to implement the following actions:





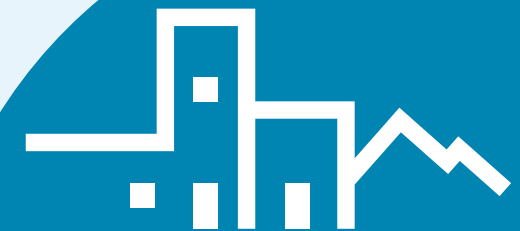
METHODOLOGY

The innovative mechanism developed in LIFE CityAdaP3 began with the definition of a public-private partnership agreement with which local companies can finance the actions of adaptation to climate change of the municipalities where they are located. The companies that signed the agreements were invited to participate in the monitoring group of the PACES of their municipalities, forming part of the decisions of the next actions that will be carried out in their cities. In addition, the support of the project has allowed the incorporation of climate and environmental aspects in their CSR strategies.

Thanks to the private contribution, it has been possible to implement urban adaptation actions to climate change.

The transfer and training on the mechanisms implemented in the project through tutoring to other municipalities has been key, as well as the replication of collaborative schemes for the financing of urban adaptation measures in another municipality through an Ideas Contest.

Numerous written works have been carried out (guides, agreements, etc.) around this strategic methodology that are published on the official website of the project.



5

THE LIFE CITYADAP3 TEAM

The consortium has been one of the main success factors of the project, thanks to the combination of experiences, knowledge and complementary approaches of its partners.

The Federation of Municipalities of the Region of Murcia (FMRM) has provided a deep knowledge of the local reality and has facilitated communication with different sectors, ensuring a wide dissemination of the project.

The participation of four municipalities of different sizes and with different climate threats has allowed testing solutions adapted to different contexts,

encouraging valuable testing and exchange of experiences. For its part, the University of Murcia (UMU) has contributed its experience in corporate social responsibility and public-private collaboration, playing a key role in the involvement of companies in the project.

Finally, EuroVértice has contributed its extensive knowledge in urban nature, adaptation to climate change and management of European projects, consolidating the strategy and guaranteeing the success of the project.



6

CSR: PRIVATE PUBLIC PARTNERSHIP

● KEY ACTIONS



Mechanisms have been developed to involve the private sector in financing urban adaptation measures to climate change.



Collaboration agreements have been designed and signed between local companies and municipalities based on their CSR, designed in a participatory way to ensure that it reflects the interests and needs of both parties. The model can be adapted to any other European municipality.



The co-financing companies have made voluntary commitments in environmental matters as part of their Corporate Social Responsibility (CSR), adopting measures to adapt to climate change in the development of their businesses.



● ACHIEVEMENTS

The initial objectives have been exceeded

30

**AGREEMENTS
SIGNED WITH LOCAL
COMPANIES**



**209,000 EUROS
COLLECTED**



6

Collaborating companies



ALCANTARILLA



ASOCIACIÓN DE EMPRESARIOS DEL PARQUE INDUSTRIAL OESTE MURCIA



EMPRESA INTEGRAL DEL AGUA



COPELE, S.L.U.



Entidad de Conservación del Polígono Industrial Oeste

ENTIDAD DE CONSERVACIÓN DEL POLÍGONO INDUSTRIAL OESTE



PLASBEL



AZUD



OLON DERIVADOS QUÍMICOS



LORQUÍ



ACCIONA



ACTÚA SERVICIO Y MEDIO AMBIENTE



GRUPO GAM SEGURIDAD ALIMENTARIA



GESTIÓN DE INFRAESTRUCTURAS

ELSAMEX GESTIÓN DE INFRAESTRUCTURAS



AUXILIARES HERMON, S.L.



MURCIA

SERVIMAN

MOLINA DE SEGURA



SERCOMOSA



HOSPITAL DE MOLINA



EVERSIA



AUXILIAR CONSERVERA

AUXILIAR CONSERVERA



SOLTEC



AZOR

REGGIO EMILIA



The pilot actions are supported by the liberal donation of
TILs rl; REIREs rl; L'OVILEs rl; IRENs pa

7

PILOT ACTIONS



ALCANTARILLA

Design of a multimodal pedestrian and cyclable platform, adapted to climate change, and its implementation in the priority axis of the future basic network of sustainable mobility, pedestrian and cyclist, connecting the nerve center of the municipality (Plaza Adolfo Suarez) with the West Industrial Estate (P.I.O.), executing a first stretch of 600 m.

Although at the beginning there was some neighborhood rejection of the installation of the platform due to the loss of parking lots, the project has concluded with positive results both socially and environmentally.

The porous concrete of the platform has demonstrated sufficiency in the face of rain, with a high drainage speed, which makes it more resilient. Native climbing plants have been placed next to the wooden structures to increase the shading surface. In the two years of follow-up, more than 9,000 cyclists and 121,000 pedestrians have used the platform, benefiting from it as a sustainable transportation option.



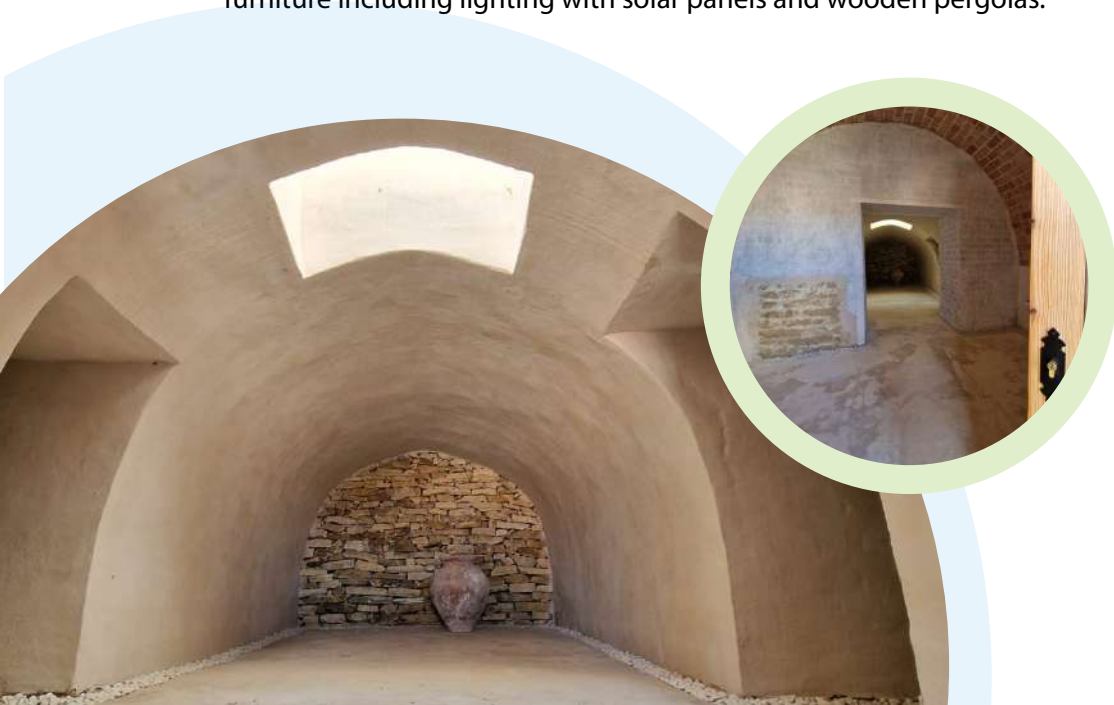
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PILOT ACTIONS

LORQUÍ

Different innovative solutions have been applied in the Ermita-Scipión hill to mitigate its erosion, as well as in Cuesta del Catecismo street, and the Cabezo de la Ermita and its accesses. They have consisted of reinforcing the heads through nature-based solutions, with the replacement of traditional systems of containment and / or stabilization of slopes by walls of gunite, geogrids and biodegradable blankets that allow revegetation

The "Las Trillizas" cave house has been rehabilitated using an innovative economical and easy replication solution. For this, the traditional technique of brick vaults and the use of lime mortars have been recovered. The performance was completed with urban furniture including lighting with solar panels and wooden pergolas.



The solutions implemented in Lorquí have not only managed to adapt the areas of action to climate change but have also laid the foundations to rehabilitate other vulnerable areas of the municipality. The cave house has proven to be an efficient and climate-adapted home, maintaining a stable temperature throughout the day in both warm and cold times. During the month of August, its interior registers constant temperatures of approximately 22oC, while outside peaks close to 45oC were reached, evidencing its natural cooling capacity.

Similarly, natural terrain has shown a more stable thermal behavior compared to asphalt. Until noon, both surfaces have similar temperatures, but from that moment, the asphalt heats up quickly, exceeding by more than 10oC the temperature of the natural soil, which reinforces the importance of materials and urban solutions that help mitigate the heat island effect.

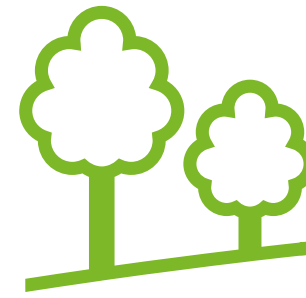
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PILOT ACTIONS

REGGIO EMILIA

The city council launched an urban afforestation project in four parks with the aim of mitigating the heat island effect and "bringing nature back to the city". The project, called "Climate-friendly parks", experimentally introduced in the four parks natural elements adapted to the new expected climate: Miyawaki microforests, field hedges, polyphytic meadows, rows of trees to shade the most used spaces and, in one of the parks, even an experimental semi-humid area. This initiative made it possible to define an adaptive park model, designed to be reproducible both locally and in Europe. This model is described in a special "dissemination" report in Italian and English.

With the planting of some 1,700 trees, the functionality of the parks has been significantly improved, especially in children's play areas and rest areas with benches. As a result, more than 12,000 citizens have benefited from these improvements.



**2850 trees
and shrubs**

7

PILOT ACTIONS

MOLINA DE SEGURA



Three main actions were developed:



Realization of model project of execution of work for the creation of an ecological House-Bioclimatic Classroom in the park La Compañía to create one. Through the recreation of a single-family house of a plant as a visitable example of bioclimatic construction. The purpose of the building is to create a multipurpose public space aimed at raising awareness about the environment and climate change.



Carrying out a study and drafting of project implementation actions for the definition and signaling of a green urban path, friendly, wooded and shaded. A project has been drafted with selection of plant species adapted to the area that links La Compañía Park with Nelson Mandela Park, in order to mitigate the heat island effect of the city and make the city friendlier.



Reforestation and establishment of sustainable urban drainage systems for climate change adaptation of Nelson Mandela Park. Vegetated ditches have been built on the edges of roads, which transport runoff water to 7 ditches and 4 infiltration wells, avoiding drags and soil erosion and reducing the torrential rains. Invasive plants have been eliminated and more than 600 native tree, shrub and herbaceous plants have been planted in the Region of Murcia. These interventions have significantly reduced the vulnerability of an area that used to suffer severe damage in flood events. Its effectiveness has been demonstrated during several extreme rain events that occurred in the municipality during the follow-up of the action.



600
native
arboreal
plants



8

THE SUCCESS OF THE MODEL: SEGUNDAS ACCIONES PILOTO

The greatest proof of the effectiveness of the methodology to involve the private sector has been the realization of second pilot actions in each municipality with the additional financial support of other local companies. Their participation in the PACES monitoring groups/working group and the use of a multi-criteria tool have allowed them to be involved in a participatory process of prioritisation and selection of adaptation actions.



ALCANTARILLA

Vegetated cover for the reduction of energy consumption

The roof of the Local Development Agency of the municipality has been waterproofed, and different species have been planted in it, differentiating themselves in 6 cultivation areas. Data will be collected on the use of rainwater, irrigation, as well as interior and exterior temperature of the building, reflecting data on energy efficiency and efficient use of water.



LORQUÍ

Miyawaki semi-arid climate microforest in sector S

A clear example of learning and replication within the project itself. The idea of Miyawaki microforest implemented in Reggio Emilia has been replicated, but testing its adaptation to the semi-arid climate of Lorquí thanks to the experience in the adaptive park of Molina de Segura.



MOLINA DE SEGURA

Performances in the Panderón Park

New trees, to provide shade, as a measure of adaptation of the park to the effects of climate change, specifically around 35 trees.



REGGIO EMILIA

Adaptive redevelopment of Piazza del Popol Giost

Transformation of a car park in the historic center into a space made with adaptive criteria to climate change, with a strong green component and a misting system to ensure climate comfort.

9

COMMUNICATION AND DISSEMINATION

The LIFE CityAdaP3 Communication Plan has been 100% fulfilled. Its actions for the communication and dissemination of the project have managed to achieve the proposed objectives, these being very beneficial for CityAdaP3.



These have been

- ✓ Design of the Corporate Image Manual
- ✓ Design, creation and maintenance of the project website: www.lifecityadap3.eu
- ✓ News writing for web, media and other channels.
- ✓ Design and dissemination of the initial and final brochure of the project.
- ✓ Recording and dissemination of videos: initial, final, and videonews, and a specific video made by Reggio Emilia
- ✓ Creation and maintenance of profiles on social networks: X and LinkedIn.
- ✓ Design, writing and dissemination of newsletters.
- ✓ Production of merchandising and other materials: reusable water bottle, rollup. and material for citizen workshops.
- ✓ Workshops for citizens and students.
- ✓ Technical seminar.

Some results



Official metrics of the project website: lifecityadap3.eu

Total page views:

17506

Sessions of the site:

5758

Unique visitors:

3450



125 followers with more than **150** tweets posted to the project's X account with more than **3.500** impressions.



40 contacts on LinkedIn with more than **60** posts on LinkedIn, with more than **3.700** impressions.



More than **250** tweets sobre el proyecto desde otras cuentas de Twitter **66** post on Facebook, **25** on LinkedIn and **31** on LinkedIn



10 downloadable documents on the project website.



46 videonews



Appearances in digital press, written press, radio and regional TV.



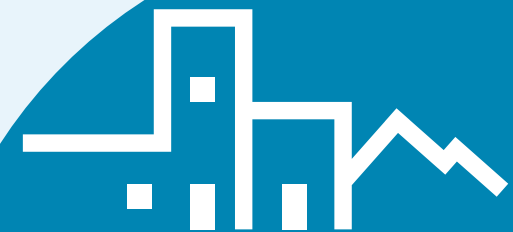
Printing and dissemination of the brochures, initial and final, at the events held within the framework of the project.



Protocolary acts of signing the agreements were carried out in all the municipalities, with great visibility and participation of the media.



8 Newsletter disseminated to more than **300** subscribers



9

In addition, specific actions have been implemented at the local level through measures such as advertising on inter-municipal buses, radio wedges, projection of project information on physical or digital screens distributed by the municipality, advertising merchandising, acts or guided itineraries for the population.



OTROS RESULTADOS



1

A working model has been established with local companies and a multi-criteria tool has been developed that can help prioritise urban climate change adaptation actions.

2

The methodology of involvement of local companies, as well as the technical specifications of the pilot actions has been transferred to other European municipalities, which have shown interest in replicating the model and / or solutions of the project.

3

The monitoring of climate actions has allowed to evaluate the environmental benefits derived from each of the pilot actions, being able to verify their efficiency in the protection against landslides, mitigation of the heat island effect and reduction of temperatures, and protection against the risks derived from floods. More than 12 hectares have been adapted to climate change, offering positive benefits for more than 15,000 people.

4

The communication strategy of the project has been a resounding success as, despite the difficulties, it has effectively delivered the key messages, raised awareness and engaged stakeholders at various levels. It is estimated that more than 90,000 people have been reached with the different communication and awareness actions.

5

Courses have been held in local institutes and for citizens in the 4 municipalities involved in the project. 793 students have received training and the skills of 149 citizens have been improved.

6

Knowledge and experience have been exchanged with other European projects, fostering synergies and leading to opportunities for collaboration in the future.

7

An e-learning platform has been launched that has reached more than 100 people, improving their knowledge about public-private collaboration and CSR, as well as ways to integrate climate change into them.

8

LIFE CityAdaP3 has been present in multiple congresses and events at national and international level, and its results and methodologies have been shared through scientific-technical publications.





LIFECITYADAP3



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