Multimodal and cycling platform adapted to climate change

LIFECITYADAP3

Alcantarilla (Spain)	171,608.92 €	1 year

CO-FINANCING COMPANIES

ASEPIO · HIDROGEA · PLASREL · COPELE · AZUD · Endeco Entidad de Conservación · olon · Derivados Químicos · Nutrafur

MAIN OBJECTIVES

1

Contribute to the adaptation to climate change of the urban environment, **improving resilience** and reducing vulnerability to heat waves and droughts

2

Design a **Standard Platform** that completes the **Sustainable Mobility Network** of Alcantarilla and can be replicable in other cities

3

Adopt **nature-based solutions to solve urban challenges**

4

Use **adaptive criteria in urban infrastructure development**

5

Improve the design and management of **green areas**, in relation to sustainability and adaptation to climate change

6

Improving the **"usability" of municipal services** and equipment by citizens

CLIMATE RISKS ADDRESSED

- Rising temperatures
- Decrease in rainfall

To request the full technical paper on the design of this pilot action, please email **lifecityadap3@fmrm.es**

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DESCRIPTION OF THE ACTION

- **Pedestrian walkway** formed by modular concrete flooring with a great drainage capacity. High-strength concrete with siliceous, granite or basaltic aggregates. 20 % recycled material. Photo-catalytic component capable of decontaminating the air from nitrous oxides and other pollutants.
- **Cycling platform executed** by continuous pavement of porous concrete for outdoors, which incorporates arid photoluminescent. Arid photo-luminescent in areas where artificial lighting is non-existent or deficient.

Both floorings placed on a base layer of filter granular material selected on a geotextile geolayer, for the natural filtration of water into the soil.

- **Floodable flower beds** with native species to reduce the heat island effect: *Morus alba, Celtis australis, Ceratonia siliqua, Lavandula dentata, Myrtus communis, Salvia rosmarinus*
  "Urban trees" of wood in areas where it is not possible to incorporate vegetation.

Platform with 2 % slope towards the flower beds so that the surface water that cannot accumulate and does not filter, reaches the flower beds. The excess water is collected through a drainage system and is driven to nearby flood gardens.

IMPACTS

You can consult the data related to the humidity of the asphalt, the use of the bike lane and the weather data of the platform environment in real time at the following link:

https://life-alcantarilla.hopu.eu/d/5ESgCvF4z/menu-principal?orgId=1

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IMPACT OF THE ACTION

The **porous concrete** of the platform has proven its **efficiency in the face of rain**, with a high drying speed, which makes it more resilient.

The efficiency of the pavement has been **verified through permeability tests and also after the heavy rains** recorded in May 2023.

There has been an **increase in bike lane users from January to September 2023**, although with less use during the summer months.

Further efforts will be made to **promote sustainable mobility in order** to continue the positive trend.

Climbing **plants have been placed accompanying** the wooden structures, which has **increased the shade surface and** therefore, its function has been improved.