

# Report on I. and II. foreign networking meeting

(Spain, Lorca and Murcia)

14<sup>th</sup>-18th May 2023



Within the framework of the LIFE LOGOS 4 WATERS project „In cooperation for climate-conscious river basin management”, the first and second networking meeting took place between the 14th and 18th May 2023 in Spain. During the networking meeting, participants could get to know more about two LIFE projects; [LIFE-ADAPTATE project](#) (LIFE16 CCA/ES/000049) and [LIFE HEATLAND project](#) (LIFE16 CCA/ES/000077).

## Visited projects

### I. [LIFE-ADAPTATE project](#)

Project reference: LIFE16 CCA/ES/000049

Total budget: 2,952,152 €

EU Contribution: 1,763,487 €

Duration: 01/09/2017 - 30/09/2021

Project Location: Lorca

Layman's Report: [https://lifeadaptate.eu/wp-content/uploads/Informe-Layman\\_Life-Adaptate\\_v04.pdf](https://lifeadaptate.eu/wp-content/uploads/Informe-Layman_Life-Adaptate_v04.pdf)

***Problem faced:***

Risks coming from climate change have a special incidence over urban areas, such as rising temperature, sea-level rising, water scarcity, droughts, flooding and food supply risk. These impacts become more intense when public services, infrastructures and housing are affected.

Population growth, together with climate change effects, form a lethal combination which is already increasing the risks for human health.

***The objectives of LIFE ADAPTE project:***

LIFE ADAPTATE aims to increase the commitment of European municipalities with the Covenant of Mayors for Climate and Energy by the development of local adaptation plans which will be integrated in the previous mitigation objectives of several municipalities, giving a comprehensive approach to the fight against climate change.

1. To develop Sustainable Energy and Climate Action Plans (SECAP) in 6 municipalities in 3 different countries (Latvia, Portugal and Spain), taking advantage of synergies and know-how of different entities supporting technical development and public participation approach
2. To develop demonstrative pilot actions related to mitigation/adaptation to climate change at local level and the different approaches that can be used to face similar risks in different European areas, widening the knowledge database of adaptation actions.
3. To test and demonstrate cooperation schemes among municipalities of different countries and the positive effects of public involvement and participation.
4. To evaluate how local initiatives and the adoption of specific measures allow the adaptation and mitigation of the climate change effects.
5. To promote specific resources and guidelines to allow transfer and replication of the project activities at European level.

This set of specific projects points towards a final objective: that local authorities and support entities have reinforced mechanism to develop effective measures to climate change adaptation.

***The main methods:***

The main solution proposed by LIFE ADAPTATE against climate change effects is to contribute to the improvement of climate policy and legislation both at local level and European level, such as EU Strategy on Adaptation to climate change and the 2030 climate and energy package aimed at achieving GHG reduction, energy efficiency improvement and increasing renewable energy production.

**II. LIFE HEATLAND project**

Project reference: LIFE16CCA/ES/000077

Total budget: 1,359,221 €

EU Contribution: 730,898 €

Duration: 02/10/2017 - 31/12/2021

Project location: Murcia

Layman's Report: <https://heatlandlife.eu/wp-content/uploads/2022/05/LAYMAN-REPORT-INGLES-17-3-22.pdf>

***Problem faced:***

The United Nations estimates that the urban population will continue to grow significantly in the coming decades, which will turn cities into the largest population centers. The relationship between climate and the city is one of the topics of main interest to researchers in recent decades. In the cities, the so-called Urban Heat Island effect occurs, which consists in a temperature difference between the center of the cities and the outer and / or rural areas. Its causes are the following:

1. Evapotranspiration is lower in cities than in rural areas.
2. Radiation trapped by tall buildings.
3. Elements that release heat (air conditioning, vehicles...).
4. Building materials used in cities absorb solar radiation and release it as heat during the night.
5. Lack of vegetation.

***The objectives of LIFE HEATLAND project:***

1. Demonstrate the effectiveness of an innovative pavement technology to mitigate the Urban Heat Island (UHI) effect.
2. Transfer the know-how generated throughout the project to those entities with the potential to replicate the proposed solution.
3. Achieve the installation of the innovative pavement in other urban areas, assisted by the beneficiaries of the project.
4. Demonstrate the effect of the new pavement in reducing local energy consumption and its contribution to reducing noise levels and atmospheric pollutants.
5. Validate the viability of the proposed pavement solution, evaluating its financial and socioeconomic balance.
6. Develop a mathematical model to predict the effect of implementing the proposed pavement technology in different urban areas and apply it in other European cities to assess the replicability potential of the innovative solution.
7. Develop useful materials and activities that allow each interested entity or person to have quality information about the project and how to adequately replicate it.
8. Educate public bodies, technical and business environments, and citizens, at a European level about UHI phenomena and adaptation to climate change and present the proposed technology as a viable adaptation solution to mitigate the UHI effect.

***The main methods:***

- Increase in shaded areas, mainly with trees.
- Installation of green roofs.
- Installation of cool roofs.
- Installation of cool pavements.

## **Networking meetings**

Three international networking meetings were planned in the LIFE LOGOS 4 WATERS project in total. Considering that the first two host organisations to be visited are located in Spain and the geographical distance between the project sites was relatively small, we decided to carry out the first two networking meetings together. This allowed us to reduce the Partnership's carbon footprint by almost half, on the other hand this decision was more cost-effective. Three participants from the Coordinating Beneficiary and one person from each Partner Organisation could attend to the networking meeting. The networking meeting was an opportunity to get to know the visited projects and map the points of connections and the possible future cooperation opportunities. We approached the networking place by plane from Budapest to Alicante, from where there were possibilities to travel by bus or train to the project sites.

### **15 May 2023 – LIFE-ADAPTATE project**

The LIFE-ADAPTATE project's main site is Lorca, a town in south-east Spain with 93 thousand inhabitants. It is located in one of the most arid regions of Europe. LIFE ADAPTATE's main objective was to contribute to improving climate policy and legislation at local level in the European Union, in line with the EU Strategy on adaptation to climate change and the 2030 climate and energy framework. The project targeted in particular, the process of design and implementation of local adaptation policies, their coordination with mitigation actions and the adaptation of local policies to meet climate change challenges. The coordination role of local governments can be considered as a main point of connection with the LIFE LOGOS 4 WATERS project. A project focused on six municipalities, three can be found in Spain (Águilas, Cartagena and Lorca), two in Portugal (Alfândega da Fé and Mértola) and one in Latvia (Smiltene). The main outcomes were the development and formal approval of Sustainable Energy and Climate Action Plans (SECAP), one for each participating municipality, the implementation of nine pilot actions in the area of climate change adaptation and mitigation, and the development or adaption of local regulations, especially those governing urban planning, in support of EU climate policy. These plans were based on local vulnerability assessment studies carried out during the project engaging the participation of the public.

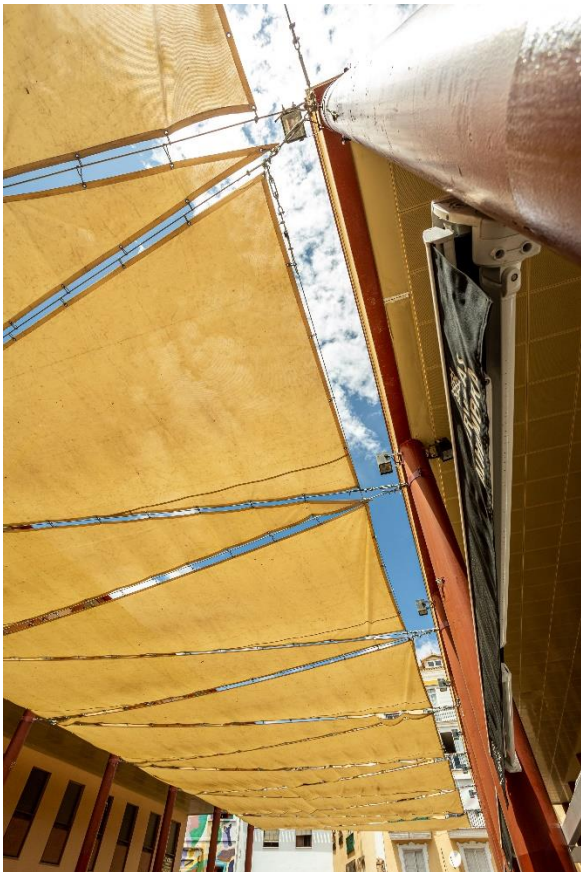
The municipality of Águilas lies next to Lorca, where the high demand for water has rapidly increased due to the sudden increase in population and the main economic activity of the inhabitants of the municipality, which is agriculture. Therefore, there is a great problem related scarcity of available water for the maintenance of wooded urban areas. The project aimed to issue this problem. Thus, one of the demonstration projects was carried out here, where a system has been designed to take advantage of the water resulting from the wastewater treatment plants for irrigation, which would otherwise be discharged into the sea.

The action starts in the water treatment plant located in Las Mascaras Street from where a pipeline flows to a water pump responsible to raise the treated water to two 35 m<sup>3</sup> tanks using solar power, from where this water falls down (by gravity) to the wooded area, which is located at 1.3 km from the treatment plant.



At the networking meeting, first the LIFE LOGOS 4 WATERS project was presented by Dr. Petra Szatzker, Project Manager of LIFE L4W followed by Fruzsina Markó, Catchment Coordinator of the Municipality of Bática and András Rakovics, Deputy Mayor of the Municipality of Püspökszilág also presented the natural water retention interventions carried out in their municipalities. The LIFE-ADAPTATE project was presented at the Claustro del Convento de La Merced by Pedro Pepes and María Rosa, who are working on the project. During the presentations attendees could learn about the objectives of the project, the implemented activities, the achieved results. Following the presentations Rafael Ataz Gómez (Region of Murcia Development Institute) answered the questions and suggested a collaboration with the project's partner in Latvia, where the weather conditions are similar to those in Hungary, he pointed out.

After the networking meeting and presentation of the projects, we had the opportunity to take a look at the "shadow corridors", which have been created to enable pedestrians to walk around safer on the streets of the city centre, protected from the strong sunlight. The shadow corridors are made of permeable material so that the rainfall is not blocked.



17 May 2023 – LIFE HEATLAND projekt

As the second stop of the networking meeting the delegation of the LIFE LOGOS 4 WATERS project partnership traveled to the city of Murcia on 17 May, where they visit the LIFE HEATLAND project. Similarly, the LIFE LOGOS 4 WATERS project was presented by Dr. Petra Szatzker, Project Manager, and then also Fruzsina Markó, Catchment Coordinator of the Municipality of Bática and András Rakovics, Deputy Mayor of the Municipality of Püspökszilág presented the natural water retention interventions in their municipalities. The LIFE HEATLAND project was presented in a building constructed as part of another sustainability project in Murcia, which promotes the circular economy and waste recycling. In the auditorium, a large number of products could be found, that are no longer used by the companies, but could be used by children, students or other people working on creative projects.

After looking around in the building, Lorena Fernández Seoane (Energy and Insulation Area, City Council of Murcia) and Manuel Valls Sevilla (City Council Murcia, Municipal Engineer) presented the LIFE HEATLAND project.



A LIFE HEATLAND project aims to reduce the urban heat island effect through innovative pavement elements and green roofs/cool roofs, nature-based solutions were also a part of this project. Murcia is also exposed to strong UV radiation for the main part of the year, so they implemented the use of cool pavement to reduce the urban heat island effect, as in municipalities around the world facing similar challenges. In addition, the residents

also reported that noise pollution has been reduced by the innovative pavement, which has provided an unexpected additional value. The pavement replaces the traditional asphalt with a mixture of lime aggregated, transparent synthetic binder and titanium oxide and iron oxides pigments which makes it a lighter colour and less heat-absorbent. Four metering towers were installed fitted with diverse sensors (e.g. a pavement surface temperature sensor, three air temperature sensors, an ozone meter and a lux meter) in the city of Murcia. At the demonstration area, we were able to gain first-hand experience of the cool pavement's effect.



The colleagues of LIFE HEATLAND project provided measuring equipments to test the temperature of the lighter-coloured cool pavement and the original pavement next to each other, which on the day of the visit - which was a less sunny day - resulted 8-9°C



difference.

The delegation could also learn about other projects carried out in Murcia. The project that was introduced by Elena de Vincent (Aguas de Murcia), also aimed to adapt to the effects of climate change, such as the urban water treatment system. In the arid areas of Spain, there is a deficiency of precipitation, resulting in a water shortage, so there is no significant potential for rainwater retention, this way people are forced to put more emphasis on wastewater treatment and use the available grey water.





To summarise, during the networking visit, representatives of the project partners had the opportunity to get to know adaptation and mitigation strategies of two cities in South East Spain, which could be relevant in Hungary because, although there are still more precipitation in our country than in Spain, but the different climate scenarios, and studies based on the method of spatial analogy indicate that the climate in Hungary will be very similar by the climate change by the end of the century. Since Hungary is a country with a high water supply yet, it is important to continue to keep the water within our country's borders in the coming years, thus preventing the drought and reduction of the quantity and quality of agricultural products. The cooperation of local governments, adaptation strategies at regional level, applying good practices from other countries can be considered as an example to be followed, which can reduce the vulnerability of Hungarian municipalities.

The following partner organizations and their representatives participated in the networking meetings on behalf of the LIFE LOGOS 4 WATERS project:

Ministry of the Interior of Hungary - Róza Szamadó dr., Head of department

Petra Szatzker dr., Professional manager

Petra Golya, Coordinator

Municipality of Bática – Fruzsina Markó, Catchment coordinator

Municipality of Püspökszilágy - András Rakovics, Deputy mayor

Hungarian Chamber of Engineers - László Márton Vona dr., Engineer

University of Public Service - Tibor Bíró dr., Dean

General Directorate of Water Management - Zoltán Szenek, Water management expert

WWF Hungary Foundation - Viktor Mátyás Farkas, Climate adaptation expert

Made: Budapest, 15 June 2023.

Made by: Petra Gólya, Petra Szatzker dr., Ministry of the Interior of Hungary  
Coordination Office for Municipalities