



LIFE GREEN ADAPT Press Release

7 July 2022, for immediate release

### **Adapting landfill sites to the challenges of extreme weather and climate change**

As global temperatures rise and the world sees more episodes of extreme weather, adaptation to climate change and a more efficient use of natural resources is increasingly necessary. In July 2021, the 42 month LIFE GREEN ADAPT project began, with a budget of €3mn with 55% funded by the European Union. The project will increase the resilience of EU waste infrastructures to climate change by the implementing green and nature-based solutions (NbS). The project has a total of 7 partners based in Spain, Denmark, the Netherlands and Slovenia and is led by AIMEN in Spain.

The project focuses on developing NbS for landfills and reducing the pollution that they produce when affected by extreme weather such as fires and floods. LIFE GREEN ADAPT demonstrates the ability of NbS to manage flash flooding and run-off caused by heavy rainfall and prevent fires and explosions caused by droughts and unusual heat waves.

In May 2022, the LIFE GREEN ADAPT project partners visited the demo site run by Xiloga at As Somozas, in Galicia, North-West Spain, and were able to see the significant progress that has been made since the start of the project. The most notable change was the development of novel bio-technosoils that now cover the landfill site. The visit was the first meeting with the Neemo project monitor who checked the project progress against the commitments that partners had made.

The bio-technosoils are an example of the circular economy in action: made of wastes from the landfill site, the bio-technosoils increase the soil quality by boosting the nutrient supply and improving the soil structure. In addition to this, a set of innovative treatment wetlands for landfill polluted leachate and run-off water are under construction at the site. These will deliver quality water, enhancing water reuse, for example, for landfill irrigation, or are suitable for safe discharge into the environment.

All the solutions developed in the project have been selected to demonstrate the potential of NbS and verify their performance under a real-scale landfill scenario. LIFE GREEN ADAPT is supporting the transition to a resource-efficient and low-carbon economy by reducing water consumption and green-house gas emissions in the waste sector. Replicability and transferability will be key aspects of the LIFE GREEN ADAPT project. The project will engage key stakeholders, including potential end-users, policy makers and investors, and will address the co-creation of the solutions developed during the project so they are fit for purpose. An overview of the project aims and outputs were presented in this webinar at the end of May: <https://youtu.be/9-yKB-EhctI>

The projects contribute to a climate-resilient, resource efficient and low-carbon economy, aligned to the European Circular Economy Action Plan, Green Deal Communication, EU strategy on adaptation to climate change and Roadmap to a Resource Efficient Europe, among others.

#### **Project Coordinator, Luz Herrero of AIMEN Technology Centre said:**

"It was fantastic to see the progress that has been made in such a short time at the demo site in As Somozas, especially the creation of the bio-technosoils which now cover nearly all of the site. These soils

will play an essential role in climate change adaptation, helping to cool the landfill site and prevent fires during extreme heat as well as preventing landslides following intense rainfall"

Luz can be seen showing the progress at the landfill site visit here: <https://youtu.be/Eh5f7EndzcA>

### **Key Statistics:**

The project aims to:

- Avoid 1,065m<sup>3</sup> in polluted water spillovers/year
- Make 21,300 m<sup>3</sup> of water available for natural water courses to increase resilience to flooding, decreasing landfill temperature. By using this treated water, freshwater consumption will also be reduced by 21,300 m<sup>3</sup>
- Save 116,702 tCO<sub>2</sub> eq per year
- Save €200-500k in leachate treatments
- Recover 27,507 t of waste each year

### **Further information about the partners:**

The 7 LIFE GREEN ADAPT partners are based in Spain, Denmark, the Netherlands and Slovenia and are led by AIMEN in Spain

- XILOGA, the main Galician company for the management of non-hazardous waste, is the end user adopter of LIFE GREEN ADAPT solutions and will commercialise the bio-technosoils for other waste managers, landfill owners or public authorities interested in waste valorisation and soil bioremediation.
- LIMNOS, an eco-remediation solutions company focused on environmental restoration and protection, that will commercialise NbS design and engineering.
- FACTOR, a consultancy firm specialised in calculating greenhouse gas emissions and studying vulnerability to climate change, that will commercialise risk and vulnerability assessment services to public authorities in charge of waste/water infrastructures and utilities interested in implementing NbS.
- ISLE, a global and independent technology and innovation consultancy firm specialised in cleantech and business consulting, that will offer NbS solutions brokerage and matchmaking services to NbS developers to accelerate co-development and market uptake of their solutions.
- AIMEN, Universitat Politècnica de Catalunya and Aarhus University will benefit from including the IP generated in their IP portfolio to exploit it through the optimal business model (e.g., licensing) and will use knowledge from the project in new R&D activities and training.

**Website:** [www.lifegreenadapt.com](http://www.lifegreenadapt.com)

**Twitter:** [www.twitter.com/LIEGREENADAPT1](https://www.twitter.com/LIEGREENADAPT1)

**LinkedIn:** [www.linkedin.com/company/74535721](https://www.linkedin.com/company/74535721)

**YouTube:** <https://www.youtube.com/channel/UCLPUYo-s3HfTTCPYmOFOMg>



Xiloga landfill site at As Somozas, Galicia. Before the project. Photo Credit: Xiloga S.L.



Xiloga landfill site at As Somozas, Galicia. During the transformation. Photo credit Xiloga S.L.



Xiloga landfill site at As Somozas, Galicia. After creation of bio-technosoils: Photo credit Xiloga S.L.



Xiloga landfill site at As Somozas, Galicia with the treatment wetlands under construction. Photo credit: Marietta Sandilands