



EUROPEAN UNION



EU MISSIONS

ADAPTATION TO CLIMATE CHANGE



February 2025

Twelve Projects Launched Following Calls to De-Seal and Transform Urban Spaces

Aiming to replace sealed surfaces with grass, trees and shrubs in Luxembourg municipalities

In 2023 and 2024, Luxembourg's Ministry of the Environment, Climate and Biodiversity awarded €250,000 to €500,000 to 12 municipal projects. The 2023 winner, Sanem transformed a car lane, into a green community space. In 2024, Differdange won for redeveloping and unsealing the 'um Bock' schoolyard in Obercorn.

Key Learnings

- **Political support:** The project calls were the catalyst that accelerated the implementation of adaptation projects at the local level. The municipalities received the political and financial support from national authorities they needed to develop new projects.
- **Inspiration and multiplication:** By implementing a number of projects with benefits for the local population, the initiative can encourage other local authorities to follow. By networking through the Nature Pact, local authorities can become multipliers when it comes to adapting to climate change.

About the region

Luxembourg covers an area of 2,586 km² and has 672,050 ([2024](#)) inhabitants. Luxemburg borders France, Belgium and Germany. The country's territory is divided into two geographical regions: the Oesling up north and the Guttland in the centre and south. In the east, Luxembourg Moselle and Our rivers form the country's border. The Éislek (or Oesling) is part of the Ardennes massif and borders the German Eifel region.

Climate Hazards

Storms, Extreme Temperatures, Flooding

Sector

Water Management, Urban, Biodiversity, Health

Key system

Ecosystems and Nature Based Solutions

Water Management, Health and Wellbeing



Climate Threats

Climate change is already significantly impacting the Grand Duchy of Luxembourg. Between 1991 to 2020, average temperatures were 0.8°C higher than during the period from 1961 to 1990. Remarkably 16 of the 17 warmest years on record have occurred in the 21st century. In 2021 and 2022, the country experienced extreme weather events, such as torrential rains, flooding, heatwaves, and droughts. Future climate projections indicate continued warming, particularly during winter, with decreasing summer precipitation and wetter winters. These changes are expected to reduce the likelihood of snowfall while increasing the risk of flooding and heavy rainfall events.

A project call for local climate change adaptation

In response to the climate threats Luxembourg faces the [Ministry of the Environment, Climate and Biodiversity](#) launched two calls for projects to the municipalities to participate in a competition awarding the best projects for de-sealing urban surfaces to reduce flood risk and urban heat. The projects submitted to the call must meet the criteria for adapting to the effects of climate change while promoting the development of green spaces that enhance the quality of life for citizens and the development of biodiversity in the urban environment.

"Trees and green infrastructures are an added value for biodiversity and also the best way to combat heat waves in urban areas. Especially in schools, it is therefore important to have a lot of nature in order to offer our children a better quality of life in their everyday life",

Serge Wilmes, Minister for Environment, Climate and Biodiversity

The aim was to financially support municipalities taking climate action and implementing Nature-based Solutions to increase their climate resilience. The series of calls for projects “More nature in our cities and villages” aims to encourage the introduction of greening measures within urban areas and to redevelop public squares or schoolyards by removing existing sealed surfaces and replacing them mainly with grass and planting trees or shrubs.

Among Luxembourg's 100 municipalities, 12 municipalities responded to the first call and 17 to the second call and submitted concrete projects for greening urban spaces in their territory. The jury involved municipal representatives, design experts in urban planning and landscaping, a representative of an environmental NGO and a representative from the Ministry. The Ministry awarded grants from the Climate and Energy Fund, ranging from €250,000 to €500,000, to the five best projects in 2023 and the seven best in 2024.

The winning municipal project 2023 – Cars Making Place for Citizens and Biodiversity

Sanem municipality submitted the winning project in 2023, transforming a car lane into a vibrant space for residents and biodiversity. The initiative involved the complete remodelling Avenue 2000 in Soleuvre, creating a greener and more community-focused environment.



Figure 1: Avenue 2000 in Soleuvre before (left) and after (right) its transformation. Image Credit: Zeyen+Baumann sàrl. (<https://pactenature.lu>).

The [project team](#), involving the landscape architects and the different municipal administration services for Avenue 2000 in Soleuvre designed several key measures to improve the area's environmental resilience and social appeal. They focused on de-sealing urban surfaces and converting the existing asphalt road into a green space. This new layout features water-permeable pathways made from natural crushed stone, which helps with rainwater infiltration and reduces the risk of flooding. Additionally, these surfaces stay cooler than traditional asphalt, providing a more comfortable environment for pedestrians.

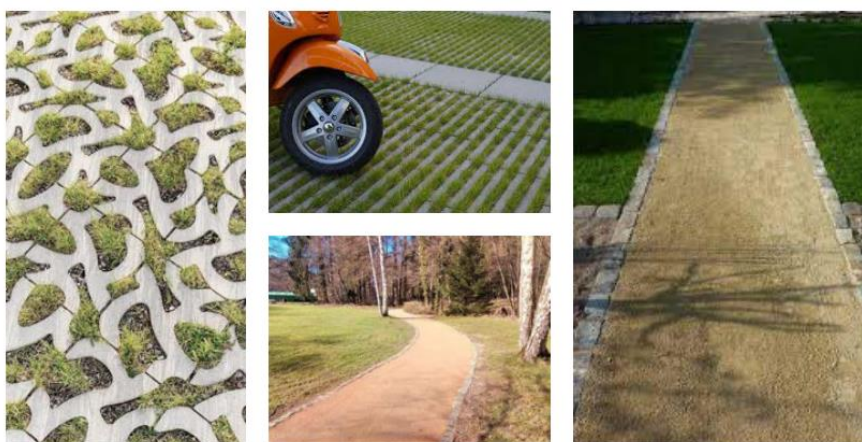


Figure 2: Permeable surfaces for climate change adaptation used at Avenue 2000. Image Credit: Zeyen+Baumann sàrl. (<https://pactenature.lu>).

A diverse array of native and climate-resilient trees, such as oak, hornbeam, and lime, along with various shrubs like field rose and honeysuckle, both enhance biodiversity and provide habitats for native wildlife and contribute to air cooling. A meadow for bees further supports biodiversity.

Natural play equipment, community gardens with raised beds, and accessible seating areas in shaded spots enhance the area's usability. The design of shared spaces, particularly play areas, requires consultation with the local population. The municipality ensures that people of all ages, including those with mobility challenges, can easily access and enjoy the new green space. Locally sourced materials for the play structures and sourced plants from regional nurseries promote sustainability. The project involves harvesting rainwater to irrigate the new trees and shrubs.

Through these efforts, the Avenue 2025 project successfully creates a multi-functional green space that addresses the challenges of climate change while improving community life in Sanem.

The winning municipal project 2024 – Greening the school playground for the children's well-being

The municipality of Differdange submitted the winning project in the 2024 call for projects, redeveloping the 'Um Bock' school grounds by replacing the sealed surfaces with green spaces.



Figure 3: School grounds before (left) and after (right). Image Credit: Ville de Differdange.

The project can be summed up by the enthusiasm, commitment, political and educational will, and childlike curiosity of the pupils. Under the guidance of the municipal services, a working group including teachers, educators and pupils helped to develop the project. Whether it was the choice of plants or the educational games to be installed, the children were able to take part in the various stages of design. The project also involves children and teachers in planting and maintaining the plants.

The project includes an outdoor area for green classes. The renewal of the school grounds encompasses demineralising the surface and creating not just an ordinary courtyard, but a green space where children can play as they used to in a natural friendly and pleasant setting, without concrete. All this while adding the benefits of learning outside the classroom and empowering the children through the upkeep they do. The use of native plants and materials, as well as references to the heritage of Minett (a region in the south of Luxembourg), enhances the protection of the town's natural and historical heritage. With this project, the municipality is bringing nature back into the urban area.

This project also fostered a new long-term collaboration between the city of Differdange and the University of Luxembourg, focusing on education for sustainable development. The University's SciTeach Center Team supports the campus in all its activities and organises training courses for teaching and educational staff to learn about sustainable development – acting for the future.



Figure 4: Use of natural materials and education for sustainable development. Image Credit: Ville de Differdange.

Summary

The Luxembourg Ministry of the Environment, Climate and Biodiversity has supported local climate change adaptation by awarding grants of €250,000 to €500,000 to twelve municipalities across 2023 and 2024. These projects not only enhance climate resilience but also urban biodiversity as part of the Ministry's Nature Pact initiative. Plans are underway to launch an annual call for projects to help local authorities become more resilient in the face of climate change.

Further information

- [Prize-giving ceremony for the call for projects "Méi Natur an eise Stied an Dierfer" 2023 - The Luxembourg Government \(gouvernement.lu\)](#)
- [Prize-giving ceremony for the call for projects "Méi Natur an eise Stied an Dierfer" 2024 - The Luxembourg Government \(gouvernement.lu\)](#)
- https://pactenature.lu/sites/pactenature/files/media-docs/2024-07/Pr%C3%A9sentation_Journ%C3%A9e%20Pacte%20Nature_Avenue2025_Sanem_VF.pdf
- <https://www.pactenature.lu/de/engagierter-akteur/naturpakt>
<https://www.pactenature.lu/de/engagierter-akteur/naturpakt> (In German)

Contact

Ministry of the Environment, Climate and Biodiversity

www.emwelt.lu / verdissement@mev.etat.lu



**Funded by
the European Union**

Disclaimer

This document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

Reuse is authorised provided the source is acknowledged and the original meaning or message of the document is not distorted.

The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated. Image sources: © goodluz, # 25227000, 2021. Source: Stock.Adobe.com. Icons © Flaticon – all rights reserved.