

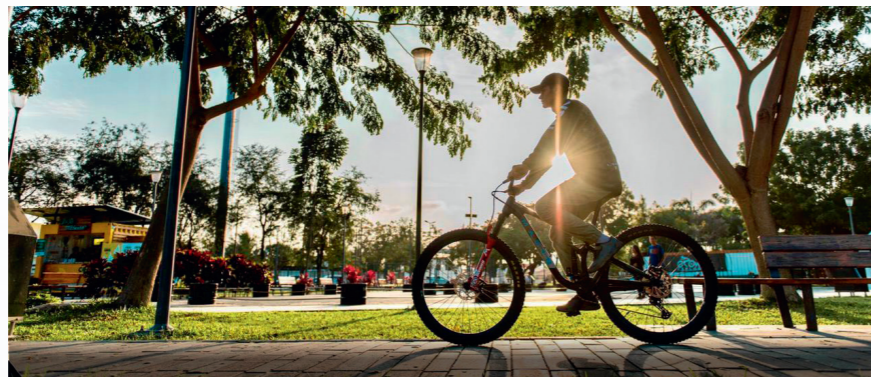
Nature-based solutions to urban challenges

- ★ Nature-based solutions can help address many major challenges facing cities around the world. We spoke to **McKenna Davis** and **Benedict Bueb** about the work of the transdisciplinary INTERLACE project, which has developed an array of tools, guidance materials, and further resources to build capacities and empower cities and other stakeholders to implement urban nature-based solutions.

Global cities are facing significant pressures from increasing influxes of people moving to urban centres, necessitating that local authorities seek solutions to provide a healthy environment for the population while addressing wider concerns around biodiversity loss, climate change and pollution. Nature-based solutions (NbS), the concept of working with nature through the protection, restoration and sustainable management of ecosystems, are an important part of efforts to combat these and other social, economic and environmental challenges. "NbS are intended to be multi-functional. They might target improved human health as a core objective, but simultaneously also deliver biodiversity benefits and reduce risks caused by extreme rainfall events and urban heat islands," explains McKenna Davis, Senior Fellow at the Ecologic Institute in Germany. For example, restoring an urban river can reduce flood risk in an area, while also having other positive effects like providing areas for recreation and social interactions, increasing the aesthetic beauty, supporting local biodiversity and attracting businesses and investments.

The INTERLACE project

With the overarching aim of empowering local authorities to restore their urban ecosystems and make cities more resilient, liveable and inclusive through NbS, the INTERLACE project draws on the expertise of 21 research, city network, city, and communication partners from across Europe and Latin America. "The project is designed to develop approaches and tools around urban NbS, which are then tested and improved through the experiences of our partner cities and made available for cities beyond the project," outlines McKenna Davis, INTERLACE Project Coordinator. The six medium-sized partner cities (Granollers in Spain, Envigado in Colombia, Kraków Metropolis in Poland, Chemnitz in Germany, Portoviejo in Ecuador and five municipalities around San José (CBIMA) in Costa Rica) helped to identify shared challenges, such as mitigating the impacts of natural events and the need to develop supportive policy frameworks. "Part of this is about reducing flood risk, but the project also aims to fill important knowledge



"We want to plant a seed and build capacities to enable cities and other stakeholders to tap the full potential of nature-based solutions."

and skill gaps around NbS," says Benedict Bueb, the Project Manager.

An effective NbS can represent a more sustainable approach than traditional 'grey' infrastructure solutions (e.g. concrete dams and dykes to reduce flooding) to address the targeted challenges. NbS may represent an alternative or complement to those solutions. "There are a variety of hybrid solutions, such as sustainable urban drainage systems, where you have a mix of grey and green components. Or you may integrate green infrastructure on the facades or roofs of buildings," says Mr Bueb. These solutions of course also need to be maintained and funded in the long-term if they are to deliver the full potential benefits and be sustainable. "These systems are inter-connected, with people not independent from nature, and natural systems not independent from people," stresses Ms Davis. "While the term NbS highlights the

natural component of these solutions, another key element is the human or people-side of NbS, as the human-nature and natural-built systems are intricately interconnected."

This philosophy is reflected in the project's overarching Nature-Places-People conceptual approach, and in the transdisciplinary composition of the consortium, which brings together researchers, urban planners, experts from city administrations and communication agencies. The project team looks to engage different stakeholders, particularly those working in local governments, with the aim of developing a more coherent and holistic approach to protecting and restoring nature. This is intended to encourage a greater focus on sustainability, in terms of both decision-making and funding structures. "We want to plant a seed in the public consciousness and help build a wider understanding of the

potential of these solutions," says Ms Davis. The project team also aims to generate tools to support the planning, implementation and monitoring of these solutions, in which the public can play a significant role. "People can participate in citizen science programmes and report on the numbers of birds and butterflies they see, for example. They can also be involved in the stewardship of NbS, such as in maintaining urban gardens, restoring rivers, or planting and watering trees," she explains.

Lasting impact of INTERLACE

A variety of tools and resources have been developed in the project for supporting the project's ambitions, focusing on citizen engagement, education, policy and governance, and planning and assessment. Guidance has been created, for example, on different strategies to engage communities, schools and other stakeholder groups, including a module for designing NbS that has been introduced into the Minecraft game and has already been used in schools across the EU and CELAC regions.

Other tools are focused more on the planning, assessment and monitoring of NbS. One major outcome from the project is an assessment framework that has been developed and piloted across the six cities, which can be used across the world. The project team has also developed the Urban Governance Atlas, an interactive online database of 250 policy instruments supporting NbS from across the world, with a focus on the EU and Latin American regions. It serves as a resource for municipalities and the research community to draw inspiration, see what types of policy instruments can support NbS, and learn from what has worked well in practice in other areas.

A number of additional resources have been developed in the project, including guidance on how to co-create policy instruments supporting NbS. Further resources include a communications toolkit, a database of good practice tools and a stakeholder engagement strategy, which will help cities across Europe, Latin America and beyond to restore ecosystems and boost the resilience of their urban centres.

While the project is set to conclude in the early 2025, it aims to have a long-term legacy far beyond this, particularly in encouraging continued collaboration among the partners and wider NbS communities in both Europe and Latin America. In particular, an online repository of NbS and NbS-related resources which is specifically focused on Latin America (naturaleza-transformativa.com) will act as a valuable resource for interested parties. "It will be a centralised portal for actors in Latin America who want to learn more about NbS. They will be able to exchange insights, post their tools, and learn from the experiences, case studies and other resources shared," Ms Davis outlines.

The relationships that have been forged during INTERLACE will also provide strong foundations for further collaboration and research. "We hope that it will be possible to follow up on this collaboration through further research projects," continues Ms Davis, "and continue to develop and promote the wealth of resources and insights coming out of INTERLACE to support the global NbS community."

This will then contribute to the goal of mainstreaming NbS in policy, planning and decision-making, moving towards making these solutions the default rather than secondary to more conventional grey options. INTERLACE's work has already helped heighten awareness of the concept of NbS in Latin America and Europe, and the project team are looking to continue in this vein. A parallel process of the European Commission called the EU-LAC Policy Dialogue on NbS has been established, bringing together different stakeholders and actors from both European and Latin American countries to collaborate, build capacities, and increase NbS uptake in policy and practice in both regions. These stakeholders include national government officials, the research community, NGOs and more groups. The goal of encouraging collaboration between Latin America and Europe on the topic of NbS is very strongly supported by the European Commission and projects like INTERLACE, as part of a wider effort to increase the awareness and application of NbS across the world.



INTERLACE

INTERNATIONAL cooperation to restore and connect urban environments in Latin America and Europe

Project Objectives

The INTERLACE project aims to empower and equip European and Latin American cities to effectively restore and rehabilitate (peri)urban ecosystems towards more liveable, resilient, and inclusive cities. To this end, INTERLACE enhances transatlantic cooperation and promotes participatory engagement in co-developing tools and guidelines for restorative nature-based solutions (NbS). The project builds on existing knowledge from both regions, increasing local governments' capacity to implement ecologically sound urban planning. Additionally, it mobilizes city networks to foster sustained knowledge exchange and raises awareness of the benefits of healthy (peri)urban ecosystems for social, cultural, and economic well-being.

Project Funding

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869324.



Project Partners

For a full list of project partners, please see: www.interlace-project.eu/node/30

Contact Details

McKenna Davis
Project Coordinator
Ecologic Institute
E: mckenna.davis@ecologic.eu
W: <https://www.interlace-project.eu/>
W: <https://interlace-hub.com/>
Project outputs:
<https://www.interlace-project.eu/node/156>



McKenna Davis



McKenna Davis is a Senior Fellow at Ecologic Institute and Coordinator of Nature-based Solutions (NbS). Her work concentrates on the assessment of NbS and their governance frameworks, with a focus on linkages to sustainable urban development, biodiversity conservation, and climate change adaptation as well as surrounding co-creation and stakeholder engagement processes. She coordinates the INTERLACE project and has led the development of diverse products to support the uptake and mainstreaming of NbS, such as the Urban Governance Atlas and CLEVER Cities Guidance.

