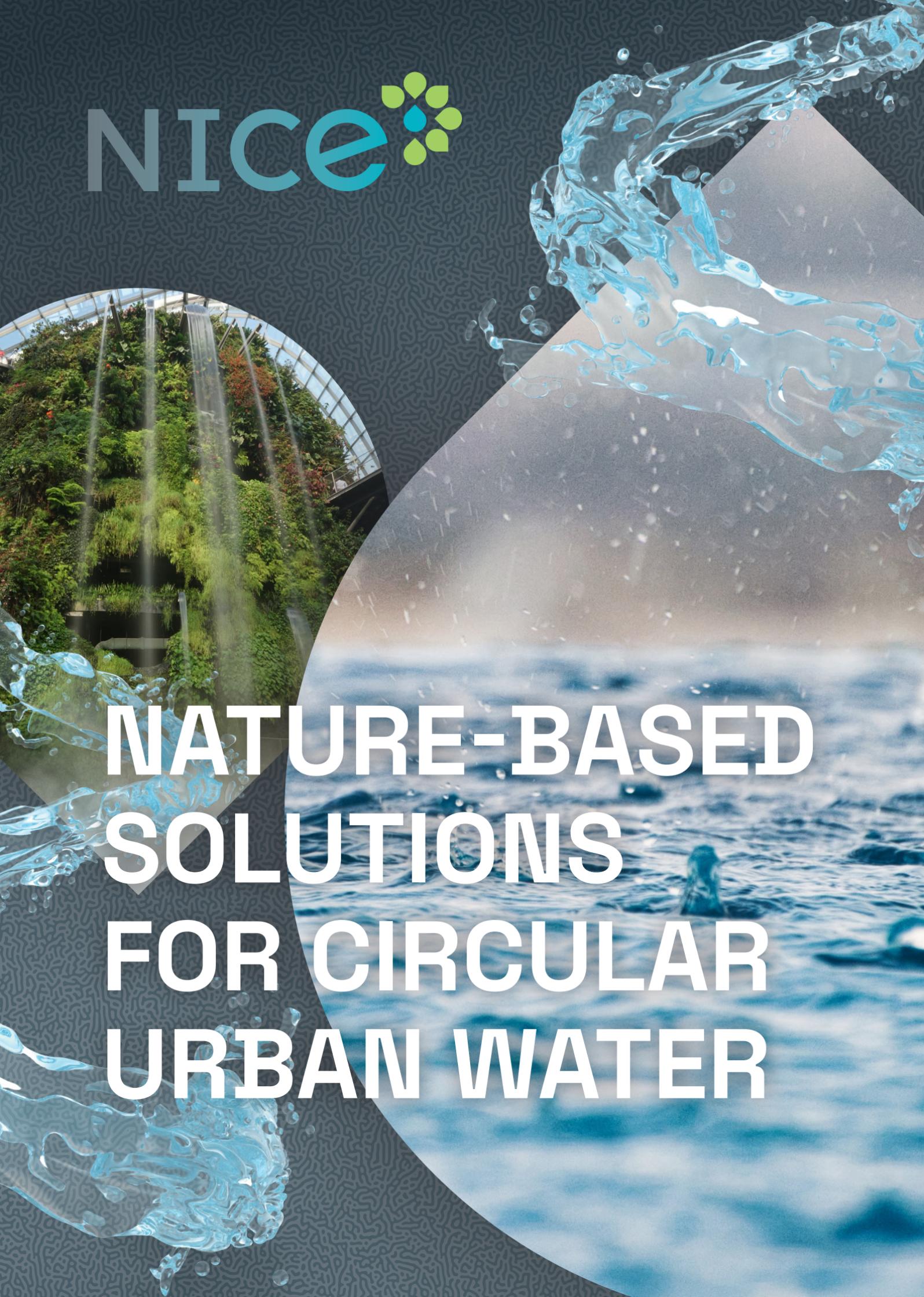


The logo for NICE, featuring the word "NICE" in a light blue sans-serif font, followed by a stylized green and blue flower-like icon composed of several small circles.

NICE

The background is a collage of three images: a circular inset on the left showing a lush vertical garden with multiple waterfalls; a large, dynamic splash of water in the upper right; and a blue, rippling water surface at the bottom. A large, semi-transparent white circle is overlaid on the right side of the image, serving as a backdrop for the title text.

**NATURE-BASED
SOLUTIONS
FOR CIRCULAR
URBAN WATER**

**NICE will utilise
nature-based
solutions to
foster circular
and sustainable
urban water
loops globally.**



Would it not be NICE...

Climate change and pollution are increasing stress on water supply globally. Both water shortages and urban flooding pose problems in cities. Cityscapes that consist of concrete, tarmac and buildings do not allow water to flow. Would it not be **nice** to change this?



EU-funded NICE aims to do just that.

Launched in June 2021, NICE will apply a natural approach to transform concrete jungles. NICE will utilise nature-based solutions to create circular urban water loops.



What are nature-based solutions?

The European Commission defines them as “solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. Nature-based solutions must therefore benefit biodiversity and support the delivery of a range of ecosystem services.”

The NICE nature-based solutions will capture water, repurpose it, and mitigate pollution and runoff. NICE will explore the following nature-based solutions:

- Green walls
- Vegetable rooftops
- Rain gardens
- Hybrid subsurface wetlands



NICE goals

Wastewater, greywater, polluted river basins, storm water and combined sewer overflow can be sustainably managed in a circular urban water system. To achieve this NICE will:

- Scale-up nature-based solutions through development of standards, guidelines and methodologies.
- Create new business and investment models for cost-effective solutions that benefit the economy, environment and society.
- Identify obstacles, barriers and opportunities in current regulatory frameworks.
- Involve local stakeholders in co-creation in the Urban Real Labs.

Urban Real Labs

Building on extensive analysis of existing nature-based solutions, NICE will develop and test new approaches in labs and 'Urban Real Labs' around the globe: **Vigo**, **Talavera**, **Algeciras**, **Benalmádena**, **Madrid** (all in Spain), **Lyon** (France), **Turin** (Italy), **Aarhus** (Denmark), **Gdansk** (Poland), **Cairo** (Egypt) and **Pereira** (Colombia).

Collaboration is NICE

Coordinated by CETIM (Fundación Centro Tecnológico de Investigación Multisectorial), with the support of AQUALIA, and 12 other partners at the forefront of nature-based solutions research and implementation, NICE will transform the European urban water landscape into a more sustainable one.

Fellow Sites

Four fellow sites will also implement NICE nature-based solutions. They will be selected among the NICE Fellow Cities that are learning from the main Urban Real Labs throughout the project; Ostrava (Czech Republic), Vienna (Austria), Copenhagen (Denmark), Tirana (Albania), Belgrade (Serbia), Quito (Ecuador) and Kunming (China).

From concrete jungles to urban oases!



Cairo, Sherif Moharram

Urban Real Labs



Nature-based solutions in Urban Real Labs

Green walls and vegetable rooftops	Rain gardens	Hybrid subsurface wetlands
Benalmádena	Algeciras	Aarhus
Madrid	Gdansk	Cairo
Turin	Madrid	Lyon
Vigo	Vigo	Pereira
		Talavera de la Reina
		Vigo



GREEN WALLS AND VEGETABLE ROOFTOPS

Green walls are vertical structures made of planted containers usually attached to a façade of a building, allowing vegetation to grow all over the surface.

Vegetable rooftops are similar structures, where a vegetated surface is installed in the roof using an insulation-waterproof membrane and a substrate where plants develop.

Green walls and vegetable rooftops are used for stormwater treatment, with recent research focusing on greywater treatment.

NICE goal:

Develop green walls and vegetable rooftops obtaining high quality water for reuse from greywater.



RAIN GARDENS

Rain gardens are systems consisting of plants built close to impervious surfaces (paved surfaces, roads, etc.) to reduce stormwater runoff and temporarily hold rainwater, reducing peak flow to intercept, store, then release water outside peak flow times (rain/storm events) to reduce flood risk.

NICE goal:

Develop a new generation of enhanced rain gardens for stormwater & combined sewer overflow events.



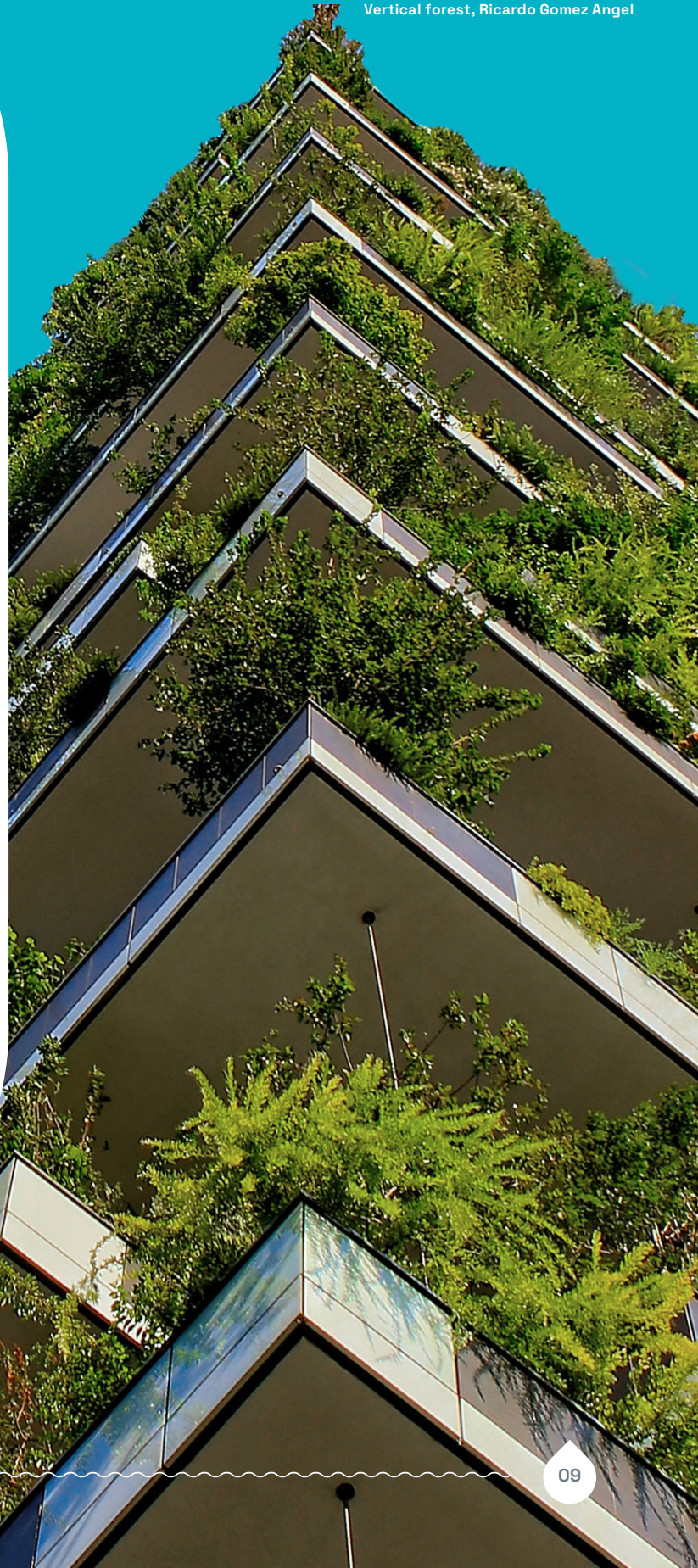
HYBRID SUBSURFACE WETLANDS

Hybrid subsurface wetlands combine different types of constructed wetlands (e.g. vertical and horizontal) to achieve better water treatment capacities due to the synergy of abiotic and biotic removal mechanisms.

NICE goal:

NICE hybrid subsurface wetlands for wastewater are based on R&D of different combinations of vertical and horizontal models, with absorber and low permeability media in combination with plants capable of enhanced pathogen removal and bioaugmentation strategies, resulting in high-quality water for reuse.

Vertical forest, Ricardo Gomez Angel



Partners



Disclaimer

Title

NICE - Nature-based solutions for circular urban water

Published

March 2022

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unger+ kreative strategien GmbH
www.ungerplus.de

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 123456





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