

URWAN



The Nature-Based Solutions URWAN Catalogue: recognising the vital link between NbS and water

Giulio Conte
IRIDRA



Nature at work: Driving NbS for a cooler, water-smart and
more resilient Europe
Open Training Session | 12 June 2025

URWAN – Urban Regenerative Water Avant-garde(N)



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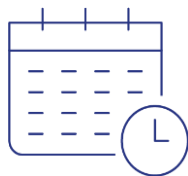
9 partners across 7 countries

- Regional Association of Italian Towns in Lazio – ANCI Lazio (IT)
- IRIDRA s.r.l. (IT)
- EuroMediterranean Center for the Sustainable Development – SVIMED (IT)
- Make it Better, Association for Innovation & Social Economy (PT)
- MedCities (ES)
- Scientific Research Centre Bistra Ptuj (SI)
- Larnaka Municipality (CY)
- Energy and Water Agency (MT)
- City of Sarajevo (BA)

18 Associated partners from 9 countries



Total budget
€ 2,836,118.00



Project duration
33 months



Interreg Funds
€ 2,268,894.40





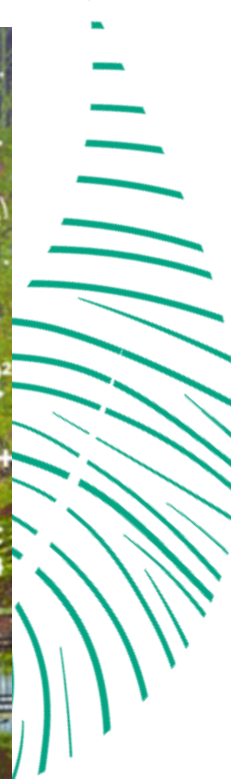
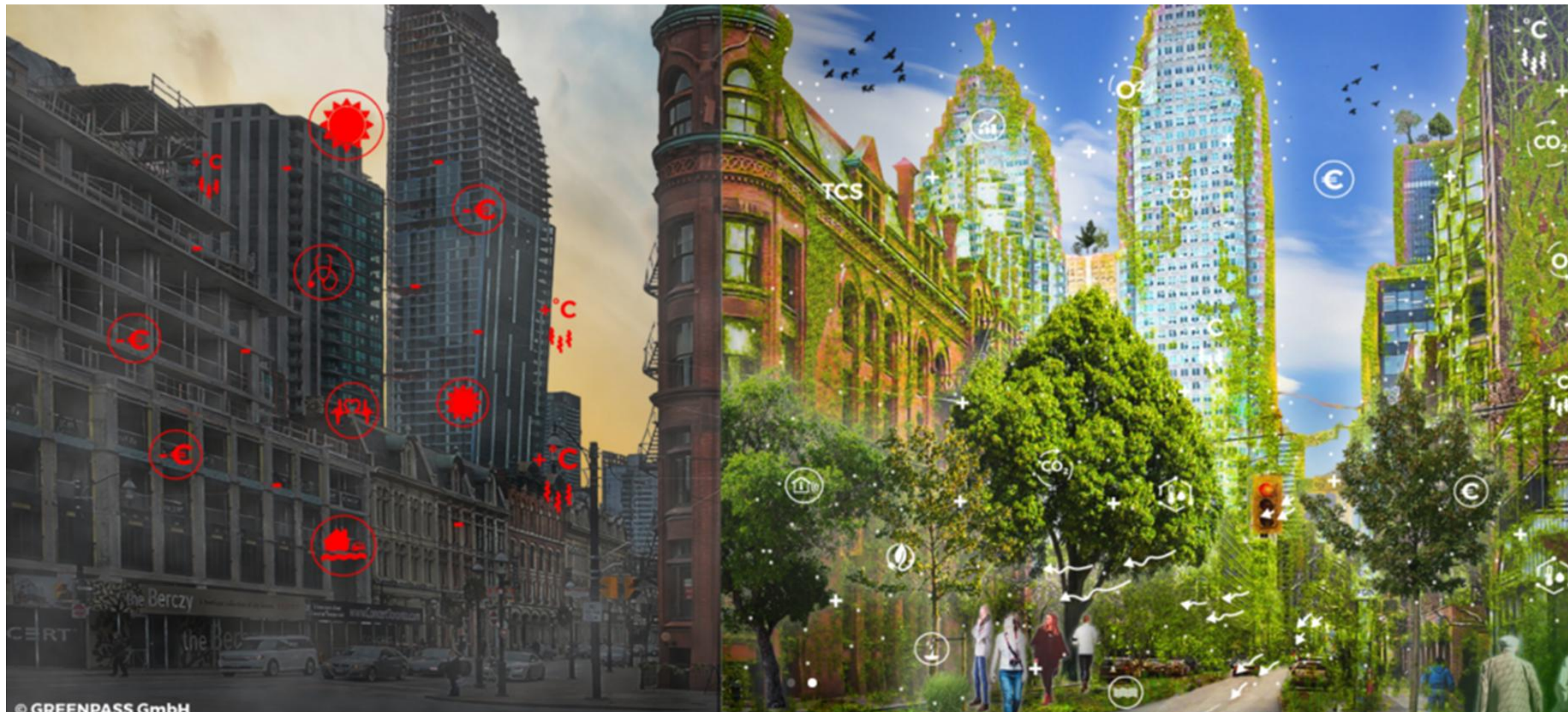
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Nature-Based Solutions





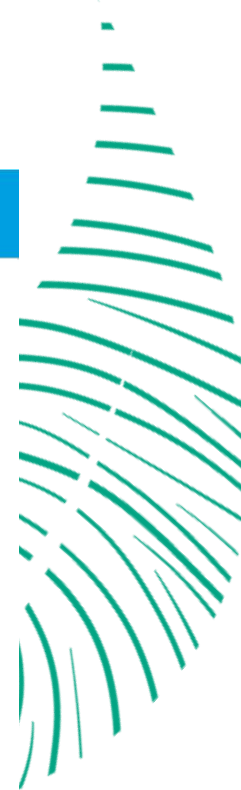
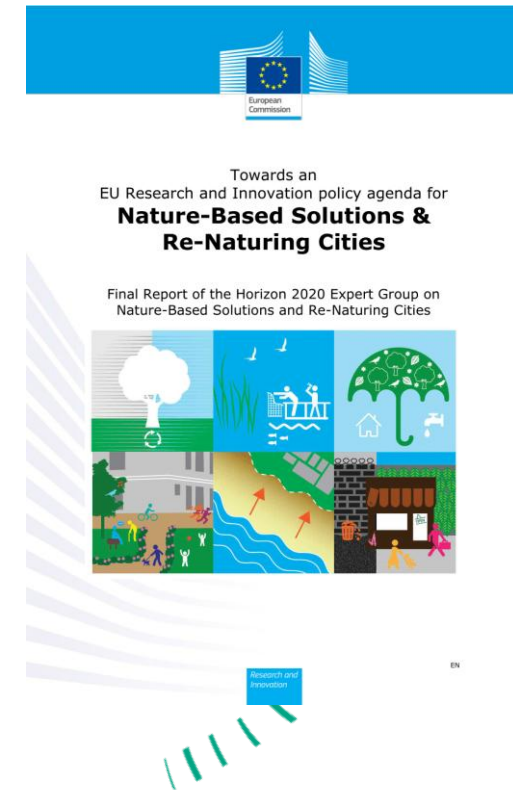
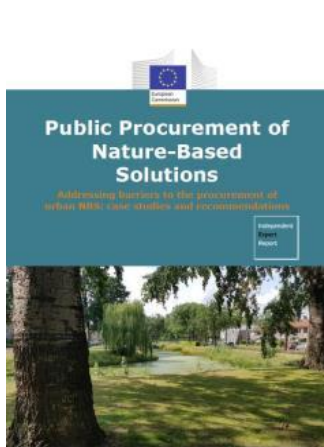
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NBS gaining momentum

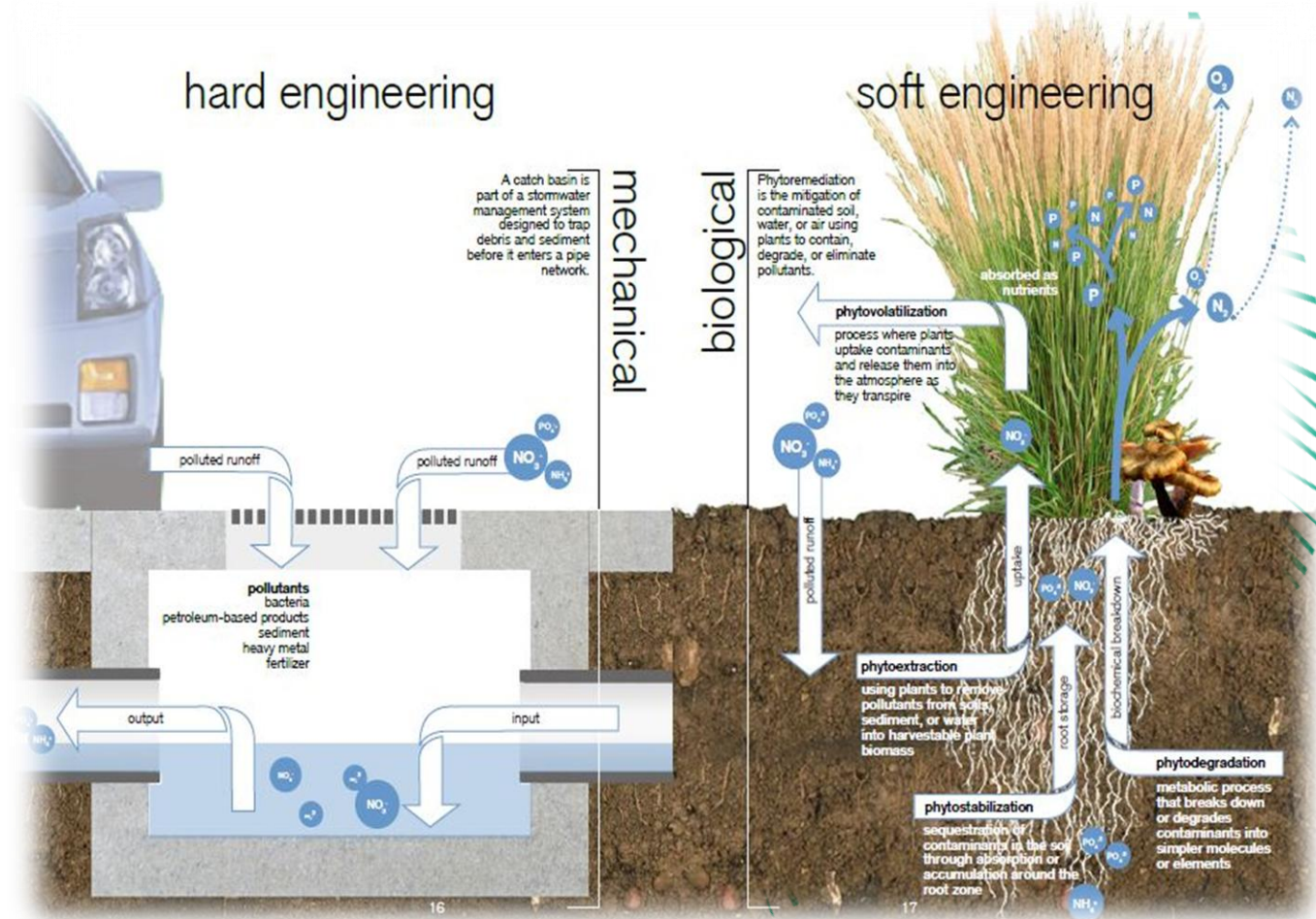




NBS vs conventional solutions

Dealing with nature may provide several advantages, but it requires a different attitude:

- **Understand the needs of «live» matter** (space for the crown of the trees, soil for the roots, photosynthesis: $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6$)
- Accept more **uncertainty** and **unpredictability**
- Accept the **nuisance of co-existence with other species**





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The greening of urban areas **needs** water



Urban green interventions must be **multipurpose**
>>> the design of urban space
shall enhance the provision of
ecosystem services <<<

The greening of urban areas
needs water
>>> **water scarcity**, and **extended
dry periods** in summer months,
especially in the Med area, shall
be considered when designing
green spaces <<<





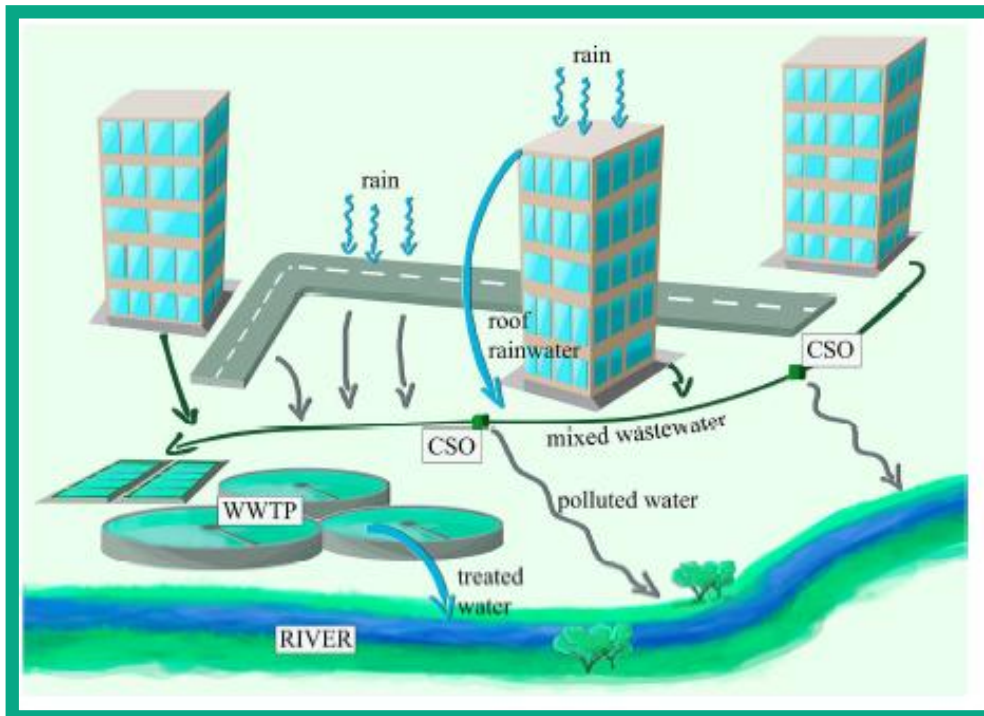
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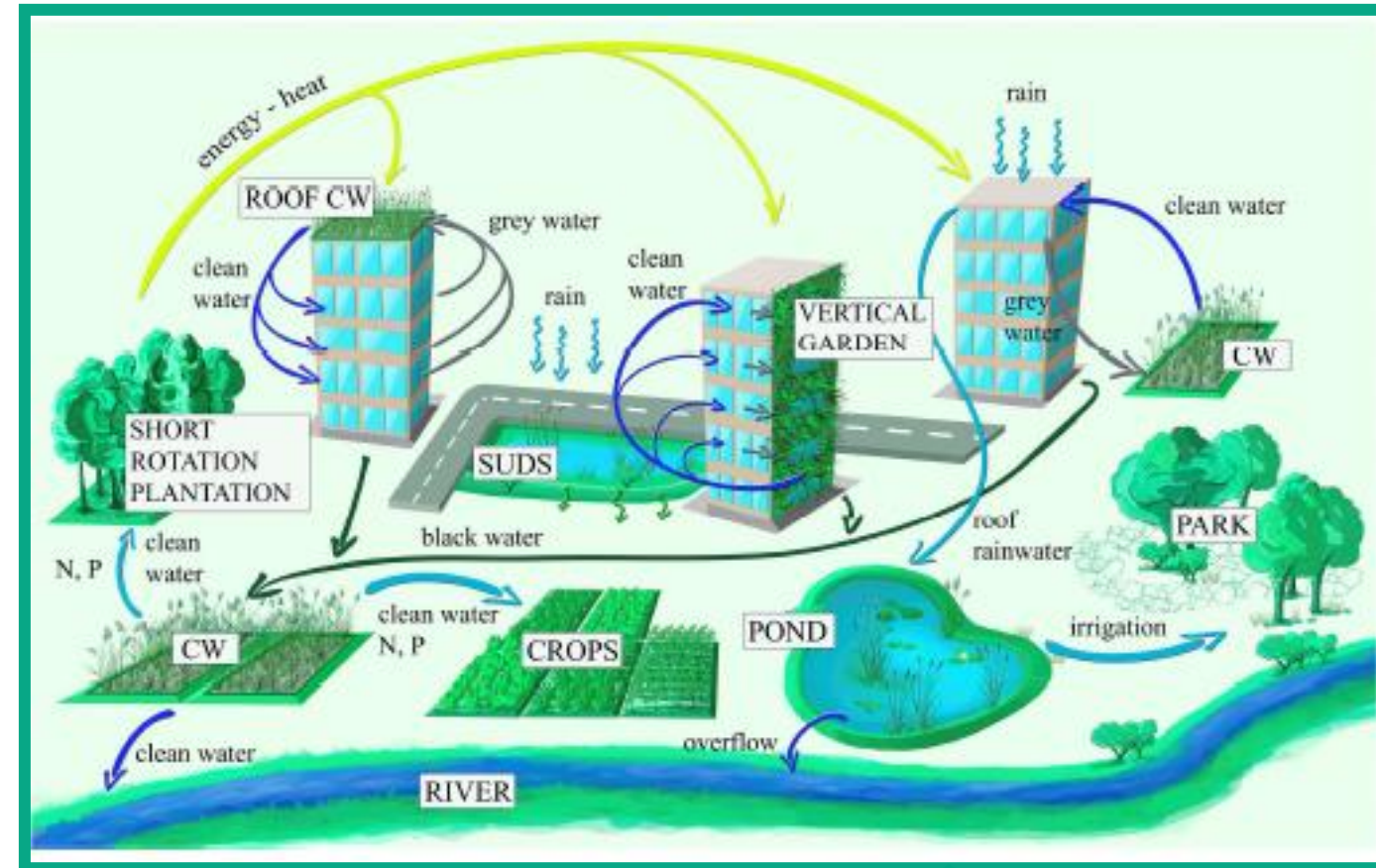


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NBS as urban green infrastructures: a new state of mind



Conventional approach



New approach



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Experiences from NAWAMED project

NAWAMED focused on urban water management by demonstrating and promoting innovative, sustainable, decentralised, and low-cost treatment technologies, replacing the use of potable water with good quality Non-Conventional Water



- ✓ **Real-scale pilot installations** for greywater/rainwater treatment and reuse, including green walls (vertical vegetation set up on building façades) and wetlands
- ✓ **Technical visits** to pilot sites
- ✓ **Training workshops** organised for technical staff
- ✓ **Decision Makers workshops**
- ✓ **'Water tables'** aimed at boosting new policies for more sustainable water management

ENI CBC MED Programme

**7 partners from 5 EU
and Non-EU
countries**

**Budget: 3.2 Million
total budget**

**Duration in months:
48 months** (ended
09/23)

URWAN NBS Catalogue for final users



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NBS

URBAN NATURE-BASED
SOLUTIONS AND WATER

A CATALOGUE FROM
THE URWAN PROJECT

9 water snob Nbs

11 water smart Nbs



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BENEFITS

WATER QUANTITY



When the solution helps reduce the adverse effects of stormwater.

WATER QUALITY



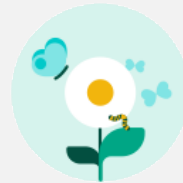
When the solution contributes to the purification of polluted water.

WATER PROVISION



When the solution provides excess for other uses.

URBAN BIODIVERSITY



When the solution provides a habitat for species than Homo Sapiens.

AESTHETIC



When the solution transforms the urban space, making it more beautiful.

COOLING



When the solution creates an area large enough to be directly used by people.

RECREATION



When the solution creates an area large enough to be directly used by people.

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DRAWBACKS

SOCIAL ACCEPTABILITY



high



medium



low

INVESTMENT COSTS

Estimated for the construction of 1 square metre of NBS.



< 100€



ranging from 100€ to 300€



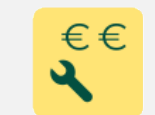
> 300€

O&M COSTS

Estimated for the maintenance of 1 square metre of NBS.



< 1 m²/year



ranging from 1€ and 5€ m²/year



> 5€ m²/year

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WATER SNOB NBS

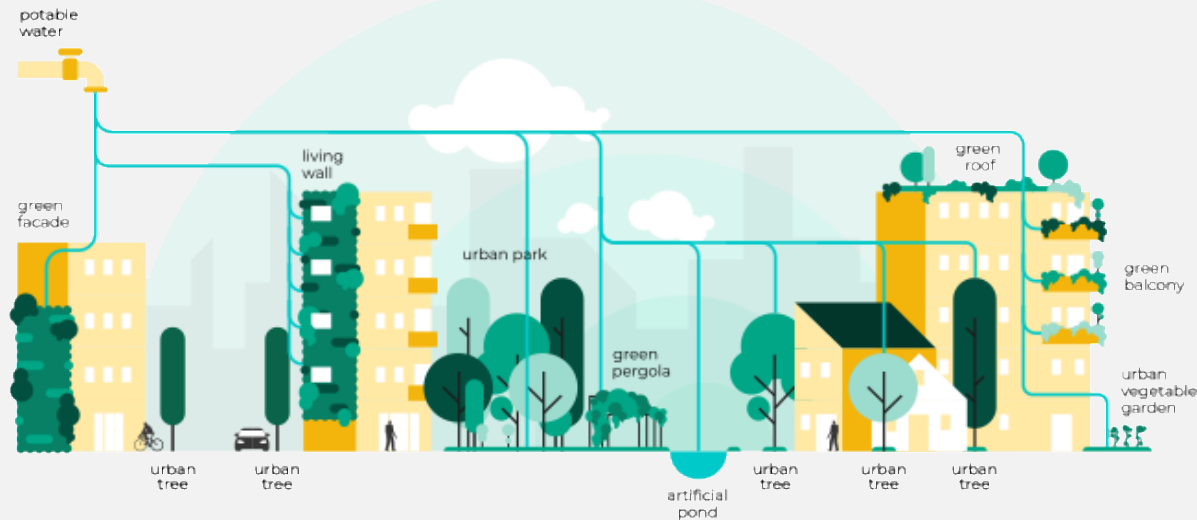


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WATER SMART NBS



WATER SMART NBS

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water SNOB NBS

LIVING WALL

MODULAR TRAY

FILT SYSTEM

HORIZONTAL SYSTEM

water quantity

water quality

water provision

urban biodiversity

aesthetic

cooling

mitigation

12

water snob

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water SMART NBS

WATER RECYCLING LIVING WALL

greywater

storage tank

reusable water

water quantity

water quality

water provision

urban biodiversity

aesthetic

cooling

mitigation

45

water smart

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water SNOB NBS

direct

indirect

14

water snob

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water SMART NBS

storage tank

47

water smart

water snob

water smart

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ARTIFICIAL POND / WETLAND

26

water snob

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TREATMENT WETLANDS

43

water smart



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ARTIFICIAL POND / WETLAND



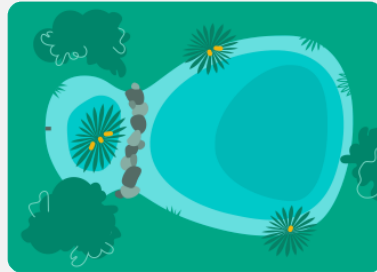
water
SNOB
NBS



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water
quantity



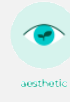
water
quality



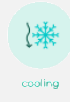
water
provision



urban
biodiversity



aesthetic



cooling



recreation



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water snob

STORAGE POND



water
SMART
NBS

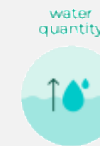


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water
quantity



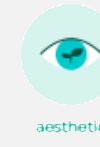
water
quality



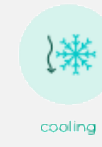
water
provision



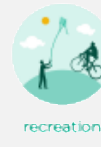
urban
biodiversity



aesthetic



cooling



recreation



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water smart



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Contact details:

Giulio Conte

conte@iridra.com

Websites:

www.iridra.eu

<https://urwan.interreg-euro-med.eu>

www.enicbcmed.eu/projects/nawamed

www.pareteverdeferla.it

