



# Urban Nature-Based Solutions

Supporting Implementation Towards Multiple Sustainability Goals

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# Urban Nature Atlas

Captures 1000 nature based solutions being developed in 100 cities across Europe.

Fully searchable online with a database version available for analysis.

New Features – expanding to include international examples & you can add your city to this globally recognised platform.

[www.una.city](http://www.una.city)

The screenshot displays the Urban Nature Atlas website. At the top, the logo features a stylized city skyline with a green vine and leaves, accompanied by the text "NATURVATION cities - nature - innovation". To the right of the logo is a search bar and social media icons for YouTube, Twitter, and Instagram. Below the header is a navigation menu with links: HOME, ABOUT, CITIES, EXPLORE, SOLUTIONS, NEWS, and CONTACT. A large aerial photograph of a city garden serves as the background for the main heading "URBAN NATURE ATLAS".

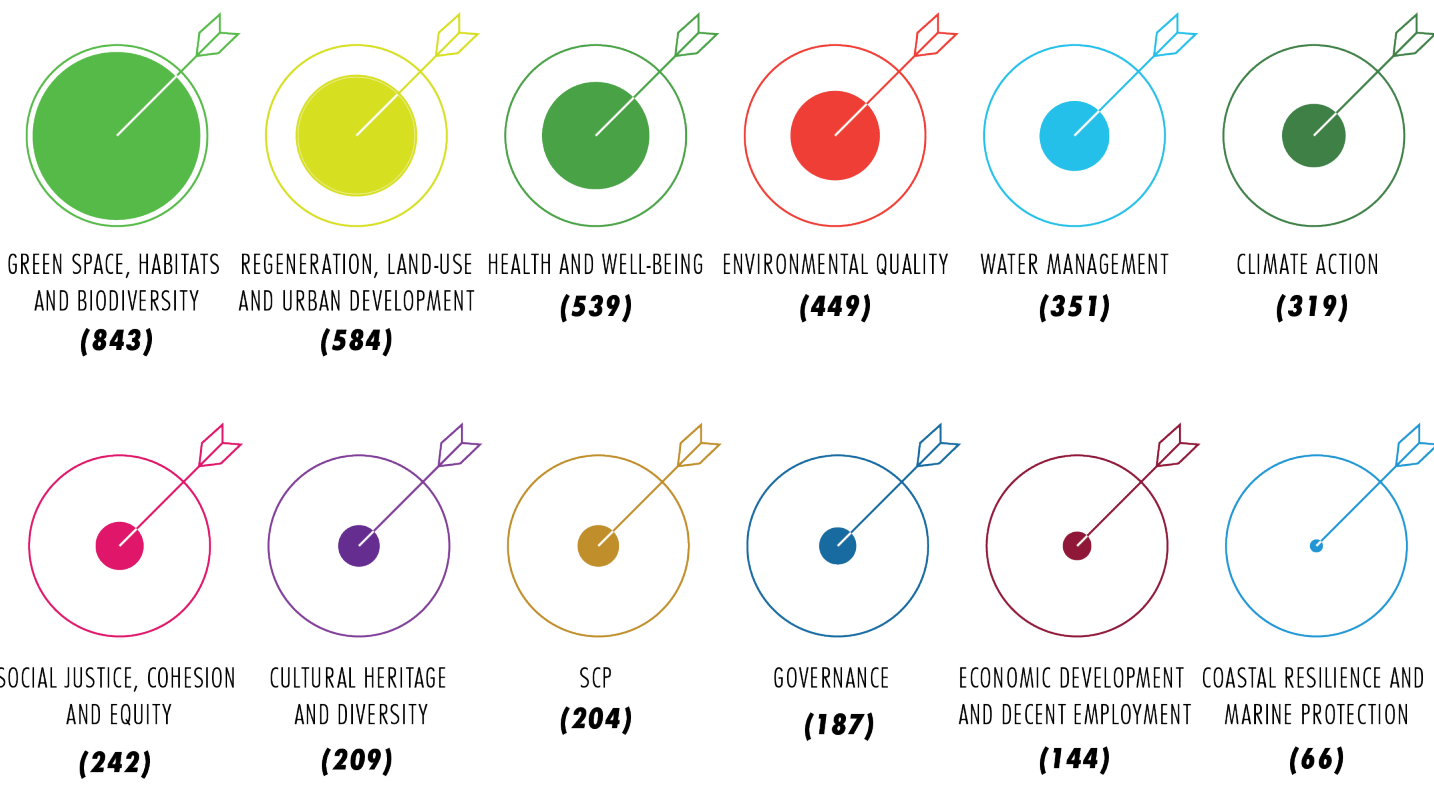
The main content area is divided into three sections:

- ABOUT THE ATLAS:** A green header with a left arrow. The text reads: "Welcome to the Urban Nature Atlas! It contains almost 1000 examples of Nature-Based Solutions from across 100 European cities." Below this, it says: "Use the Quick Search by icon (to the right of the map) or the Advanced Search (below the map) to identify the projects fitting your interests." At the bottom of this section, it states: "The map will be updated to display the results of your search, and a list of all relevant projects is displayed below. Click on the title of projects for further information."
- Map:** A map of Europe with yellow circular markers indicating project locations in various countries, each labeled with a number. A scale bar for 500 km is located at the bottom left of the map.
- QUICK SEARCH BY ICON:** A blue header with a right arrow. It contains three categories of icons:
  - KEY CHALLENGES:** Icons for CO2, a star, a building, a bar chart, a person, and a leaf.
  - URBAN SETTING:** Icons for a factory, a person, a person with a magnifying glass, a person with a speech bubble, a person with a heart, and a house.
  - PROJECT COST:** Six circular icons representing different cost levels, from a single '€' to six '€'s.



# Urban Nature for Sustainability

There is a clear *opportunity gap* to work with cities to leverage the multiple benefits of nature towards environmental goals, and for cities to demonstrate how multiple benefits can be realised for sustainability goals.







# Urban Nature Navigator Gold

## NBS potential in three EU cities

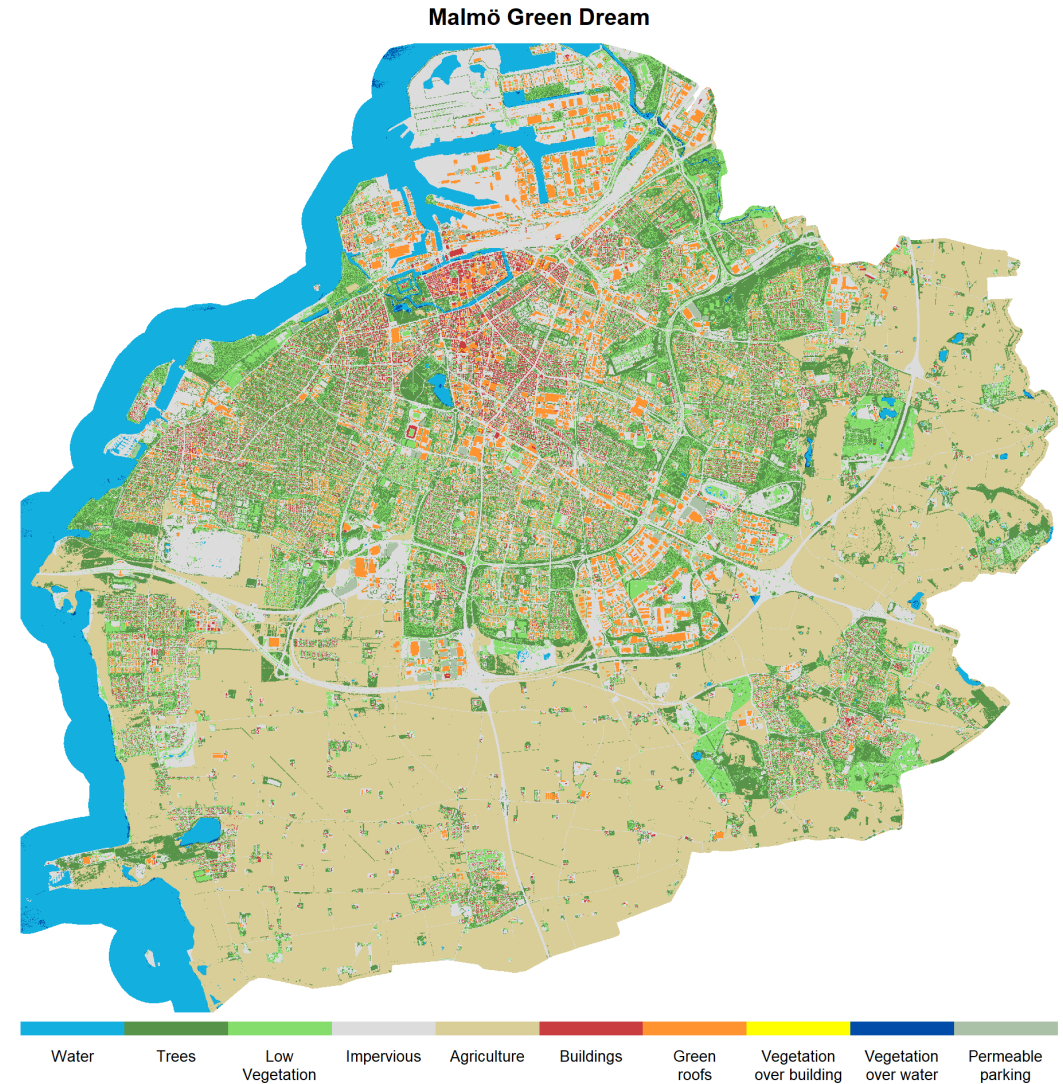
About 10 % of the urban surface can be converted to green NBS, but half of this is green roofs!

Using available space heat mitigation is best enhanced by increasing canopy cover in parks and along streets.

Given the space available, run off reduction is best enhanced by converting roofs to green roofs.

Although carbon storage can be improved, the amounts are small compared to what other types of land use changes outside urban areas can provide.

<https://naturvation-navigator.com/> &  
<https://naturvation.eu/assessment/cities>



# Urban Nature Explorer

[www.urbannatureexplorer.com](http://www.urbannatureexplorer.com)

## Select a challenge!

### Urban heat island effect

Mostly barren pavement from end to end on the square with very limited vegetation and buildings all around are amplifying a heat island effect during Summer. With no shade and high temperatures the area is avoided by people during daytime hours.

Select

### Social interaction and recreation

The river nearby is disconnected from the square by a road. There are no benches, plants or play structures on the riverbank, only pavement all the way to the water. Opportunities for active use and social interactions are limited.

Select

### Air quality

The square is part of a historic district, surrounded by old buildings and narrow streets with little vegetation. On the outside perimeter there are major roads with heavy traffic in peak hours, contributing to air pollution and other health challenges.

Select

Nature-based solutions

Amenities

Challenge

Urban heat island challenge

NATURE-BASED SOLUTIONS

Trees

Pine Trees

Leafy Trees

Fruit Trees

Drought Resistant Trees

Parks

Lawns

Nature on Buildings

Blue Areas

Water Management

Food Production

Biodiversity Support

AMENITIES

Recreation

Physical Activity

Education



YOUR PROGRESS

Implementation period: 2020-2025

AVAILABLE BUDGET

95 000 coin

YOUR IMPACT

Average daily temperature: 26°C

Temp

27

24

21

2020

2025

2030

Number of hot days above 35°C: 10 days

Days

40

30

20

2020

2025

2030

Economic value: 26€

Value

27

24

21

2020

2025

2030

STAKEHOLDER SATISFACTION

4.5

10

OVERALL SCORE: 16.4/100

Finish

Refresh period

Implementation period

Available budget

Indicators: baseline, projection, target

Economic value

Stakeholder satisfaction

Overall score

# Business Models for Urban Nature-Based Solutions

Downloadable at

[www.naturvation.eu/businessmodels](http://www.naturvation.eu/businessmodels)



**Risk reduction**



**Local stewardship**



**Green densification**



**Green health**

➤ Upfront investments into urban nature-based solutions are made to lower future costs from extreme weather events

➤ NBS are valued by citizens and businesses who are willing to protect and support nature in their neighborhood based on the direct value and sense of identity and meaning that they derive from it

➤ Integrating NBS into urban real estate development, with costs embedded as part of larger 'sustainable urban living' business case

➤ The therapeutic, health and wellbeing value of urban nature-based solutions is recognized and used as a driver to finance urban nature-based solutions





Single Business Models will not be sufficient to generate investment – they need to be 'stacked up'



Energy efficiency from green roofs and walls; longevity of roof

Indicators:

- Energy bill
- Roof maintenance

Direct cash flows

For school



Risk reduction of extreme heat events

Indicators:

- Lower indoor temperatures
- Longer school days
- Better learning outcomes

More cost effective public spending

For public bodies



More healthy learning environment (air quality, green playground, temp)

Indicators:

- Improved health of students
- Air quality
- Less overweight?

Market demand

From families

# Urban Nature, Social Justice?

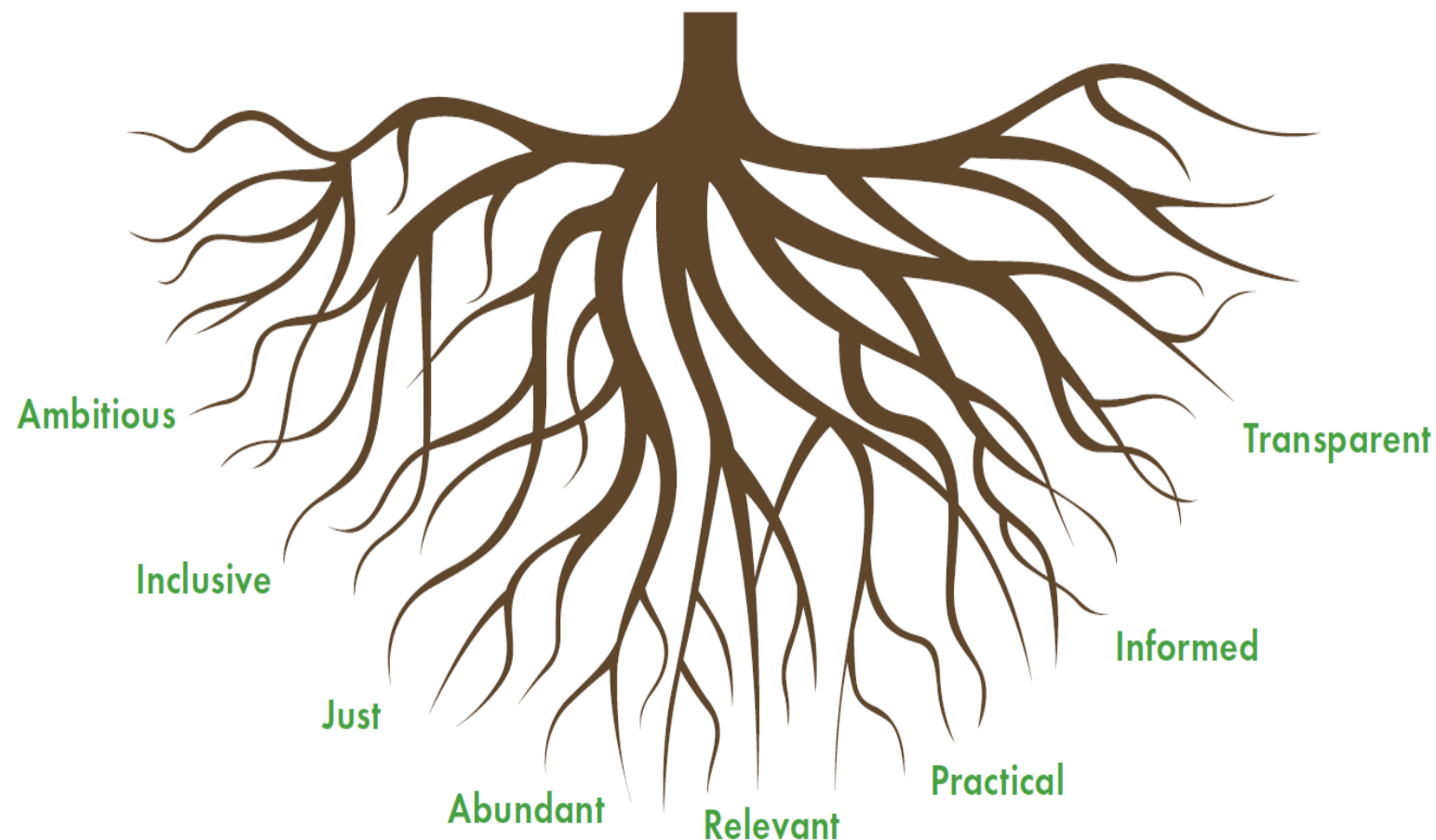
Nature-based solutions involve trade-offs as well as synergies. Such interventions may not deliver other important goals for cities and their communities unless this is explicitly built in from the start.

- Nature-based solutions *can* generate multiple sustainability benefits but this does not always mean that they *will*.
- A focus on e.g. climate benefits may lead to other issues – such as biodiversity – being neglected.
- Nature-based solutions can also be designed and implemented in ways that exacerbate inequalities.
- Ensuring that nature-based solutions benefit those who need them most is critical for socially just urban futures.



# Growing Strong Urban Nature Based Solutions

Alongside new tools and knowledge for developing and implementing nature-based solutions, it is crucial to develop principles & guidance that address issues of justice and equality as NBS come to be mainstreamed.





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[www.naturvation.eu](http://www.naturvation.eu)

THANKYOU!



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