CEU Department of Environmental Sciences and Policy
CENTRAL EUROPEAN UNIVERSITY

Build Back Better with Nature-Based Solutions

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SDTF 2022

Session 4: Life on Land – How COVID-19 recovery and 2030 Agenda can only be fully achieved through addressing SDG 15

March 2, 2022

NATURVATION

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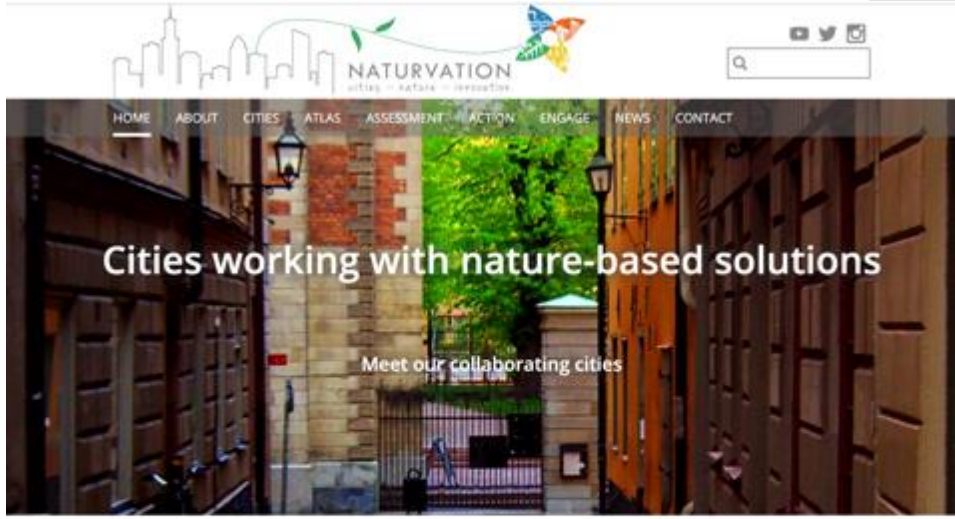
NATure-based Urban innoVATION

- 4-year research project (2016-2020+)
- Involving 14 institutions across Europe
- Funded through the EU Horizon 2020 Programme
- *Seeks to develop understanding of **what NBS can achieve**, examine how **innovation** can be fostered in this domain, and contribute to **realising the potential of NBS** for responding to urban sustainability challenges.*



LEARNING TOGETHER | INNOVATING IN CITIES | EXPLORING THE ATLAS | ASSESSING VALUE

SDG 15: Life on Land

- Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

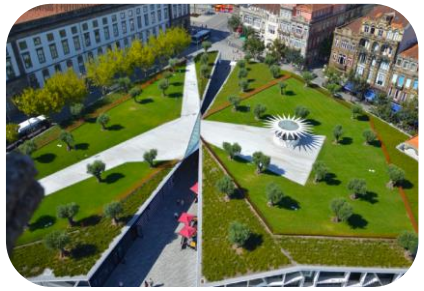
Make Space for the New Normal

A Roof …

… or a storm water management, climate adaptation, biodiverse habitat which improves quality of life

Nature-Based Solutions (NBS) are deliberate interventions that are inspired or supported by nature.

"living solutions that bring more nature and natural features and processes into cities … through locally adapted, resource-efficient and systemic interventions" (European Commission, 2017).



1.Building greens (external)

2. Green areas connected to grey infrastructure

3. Parks and (semi)natural urban green areas

4.Allotments and community gardens

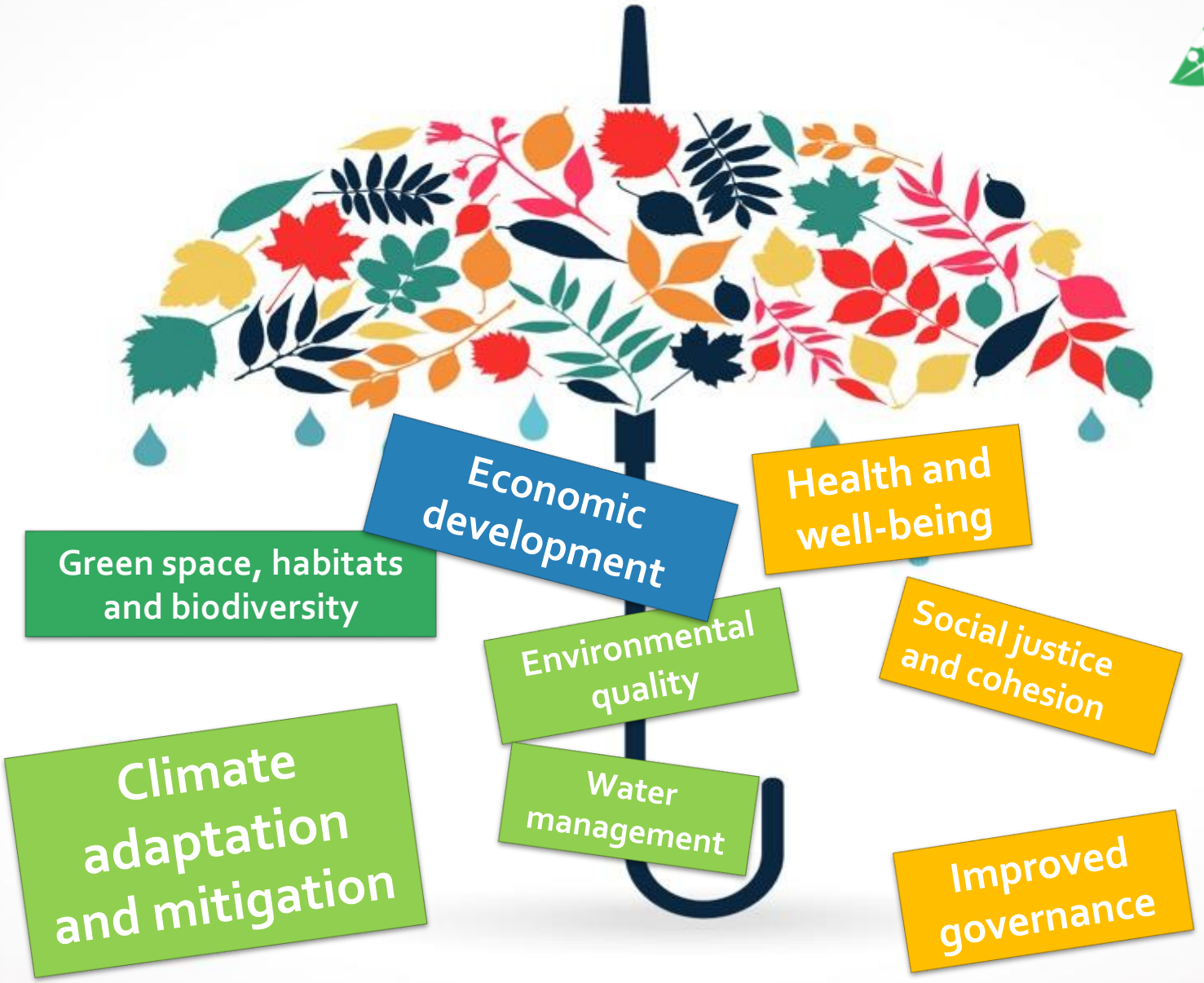
5.Green indoor areas

6.Blue areas

7.Green areas for water management

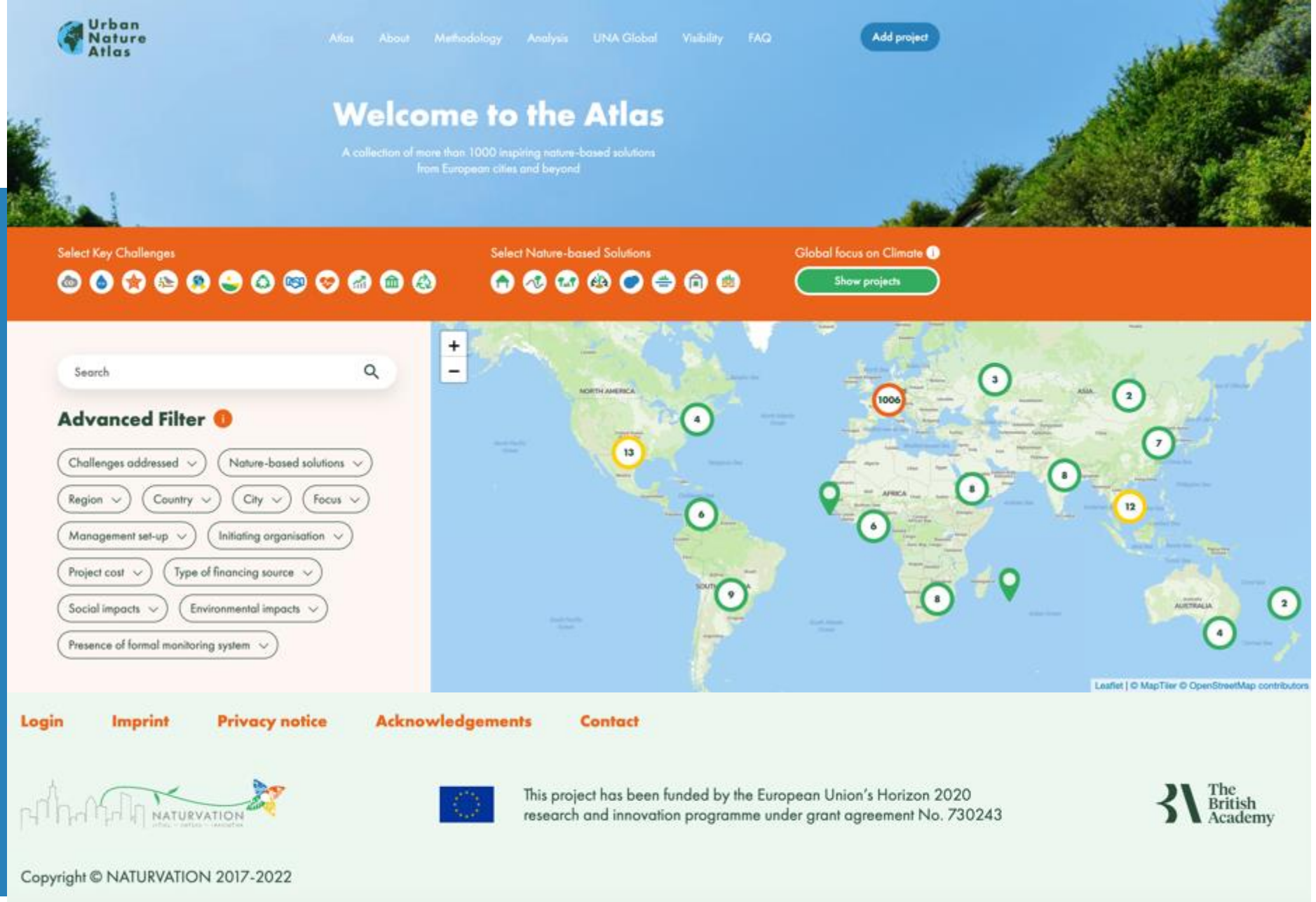
8.Derelict areas

Nature-Based Solutions can address various sustainability challenges



Example of links between SDG15 and other SDGs

Source: Hazarika, R., & Jandl, R. (2019). The Nexus between the Austrian forestry sector and the sustainable development goals: a review of the interlinkages. *Forests*, *10*(3), 205.


Urban Nature Atlas
Atlas
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Welcome to the Atlas
A collection of more than 1000 inspiring nature-based solutions from European cities and beyond
Select Key Challenges
Select Nature-based Solutions
Global focus on Climate
Show projects
Search
Advanced Filter
Challenges addressed
Nature-based solutions
Region
Country
City
Focus
Management set-up
Initiating organisation
Project cost
Type of financing source
Social impacts
Environmental impacts
Presence of formal monitoring system
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Urban Nature Atlas

www.una.city

The most comprehensive database of urban NBS in Europe and beyond

Based on a systematic survey and rigorous multi-stage quality control

Database development:
July – August 2017

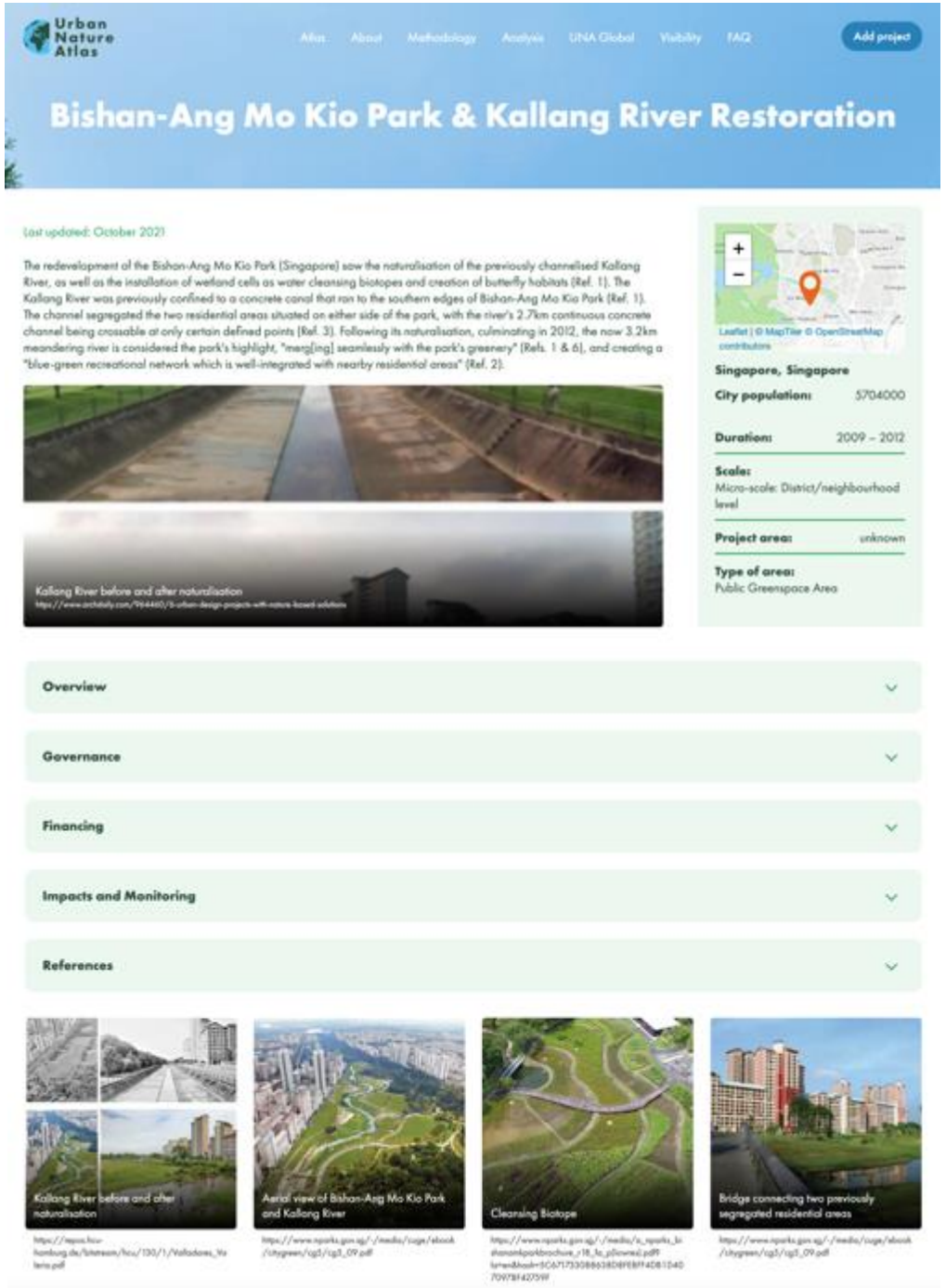
Global NBS cases with support by the British Academy:

2021 - ongoing

Includes 1000 interventions from 100 European cities

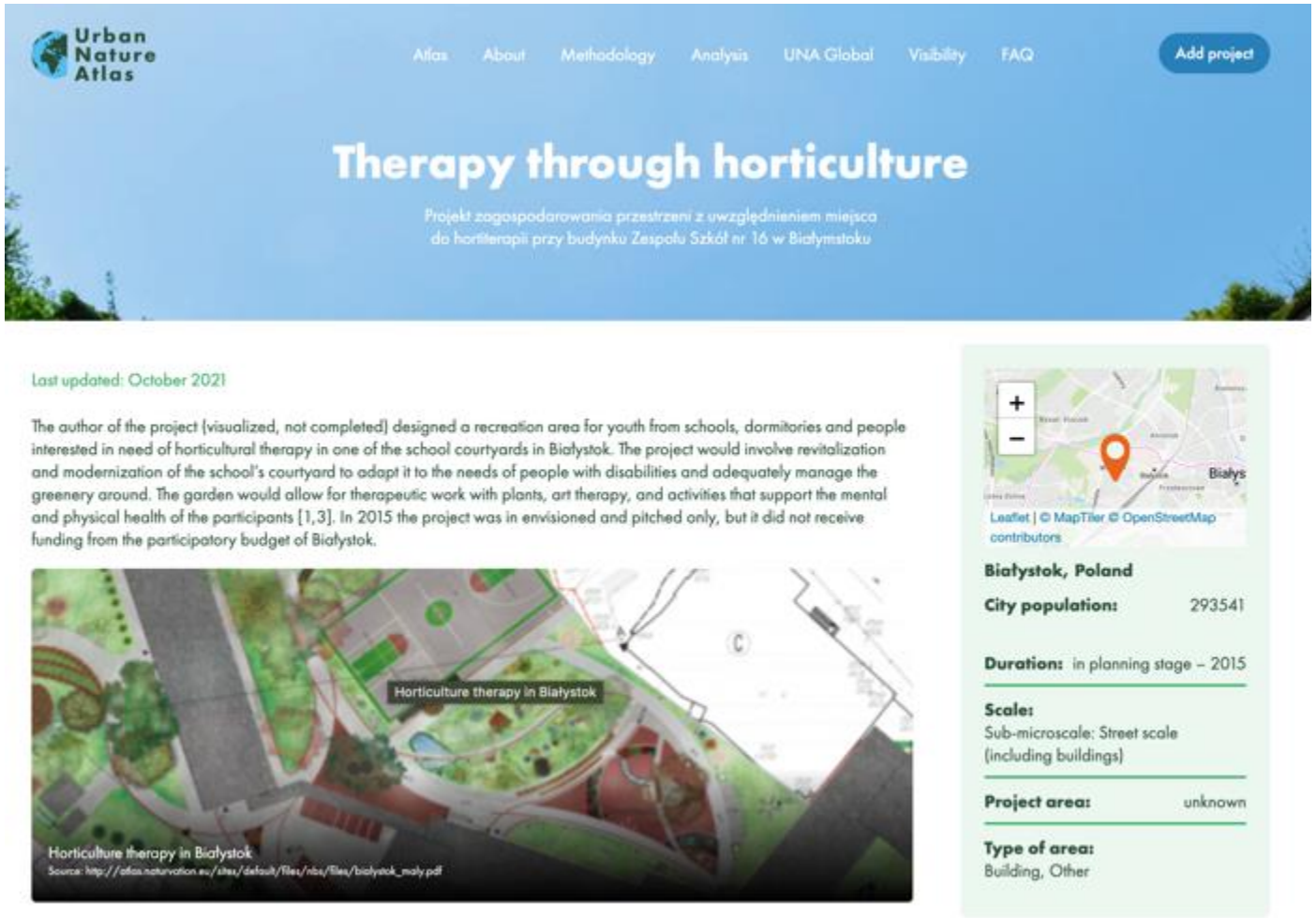
Plus 94 cases from cities outside of Europe

Example 1: Singapore



Example 1: Singapore

Example 2: Poland



Example 2: Poland

Horticulture therapy in Białystok visualisation

Example 3: France

Example 3: France

Urban Nature Atlas

Sustainability Challenges

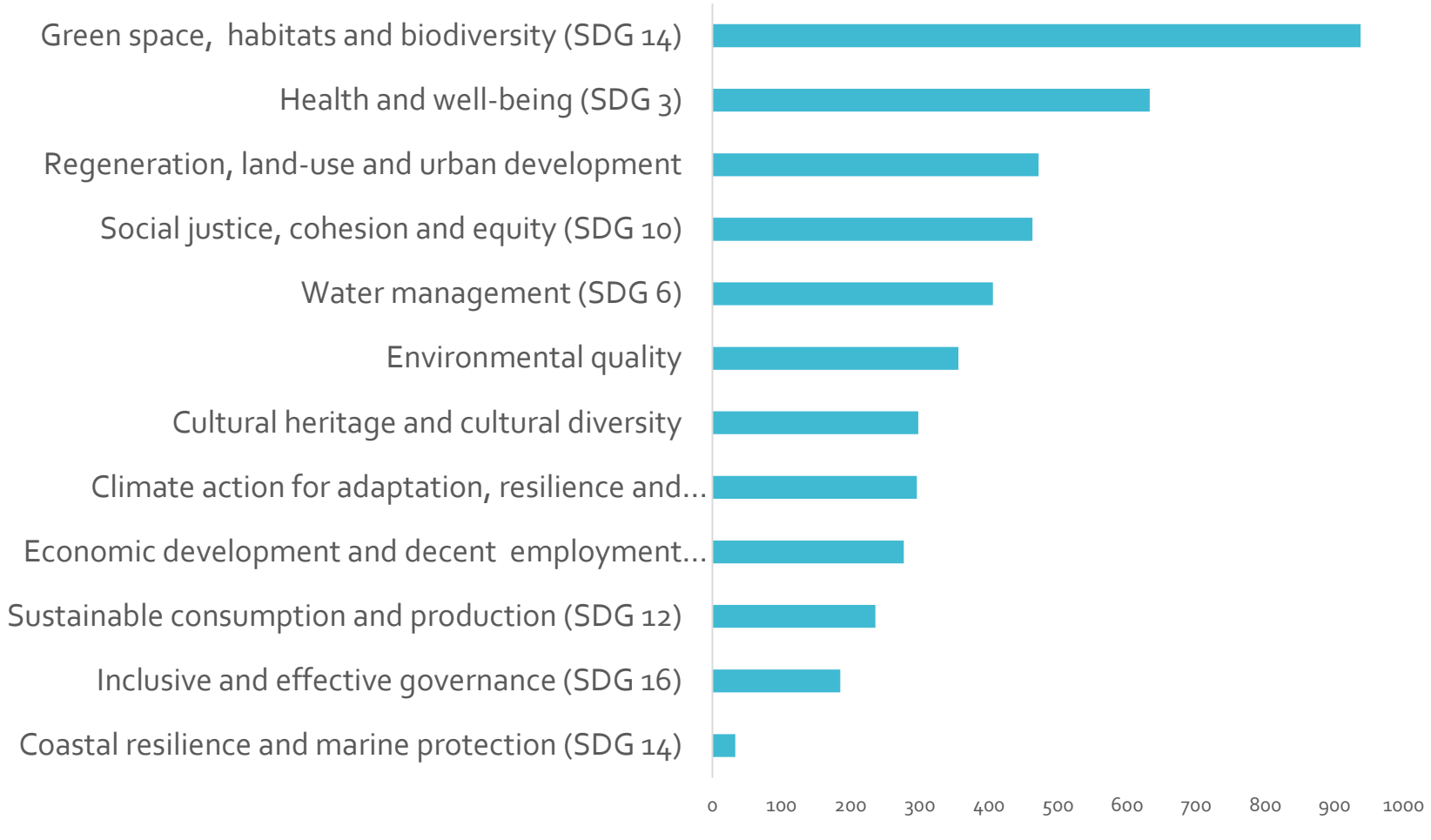


Figure 1. Sustainability challenges addressed by NBS in the Urban Nature Atlas.

Contributing to a Green Recovery?

Nature-based solutions have the potential to contribute to climate and nature goals whilst promoting health and well-being

Mitigation

- Reduce energy demand through passive cooling and heating
- Reduce embodied carbon in infrastructure
- Carbon sequestration

Adaptation

- Storm water & flooding management
- Reduce impact of heatwaves – cooling city & population health
- Coastal protection

Nature

- Protect & Conserve biodiversity
- Enhance water, soil and air quality
- Create new connections and values for nature

Well-Being

- Support physical & mental health l
- Enable community empowerment
- Foster social inclusion & diversity

NBS benefits?

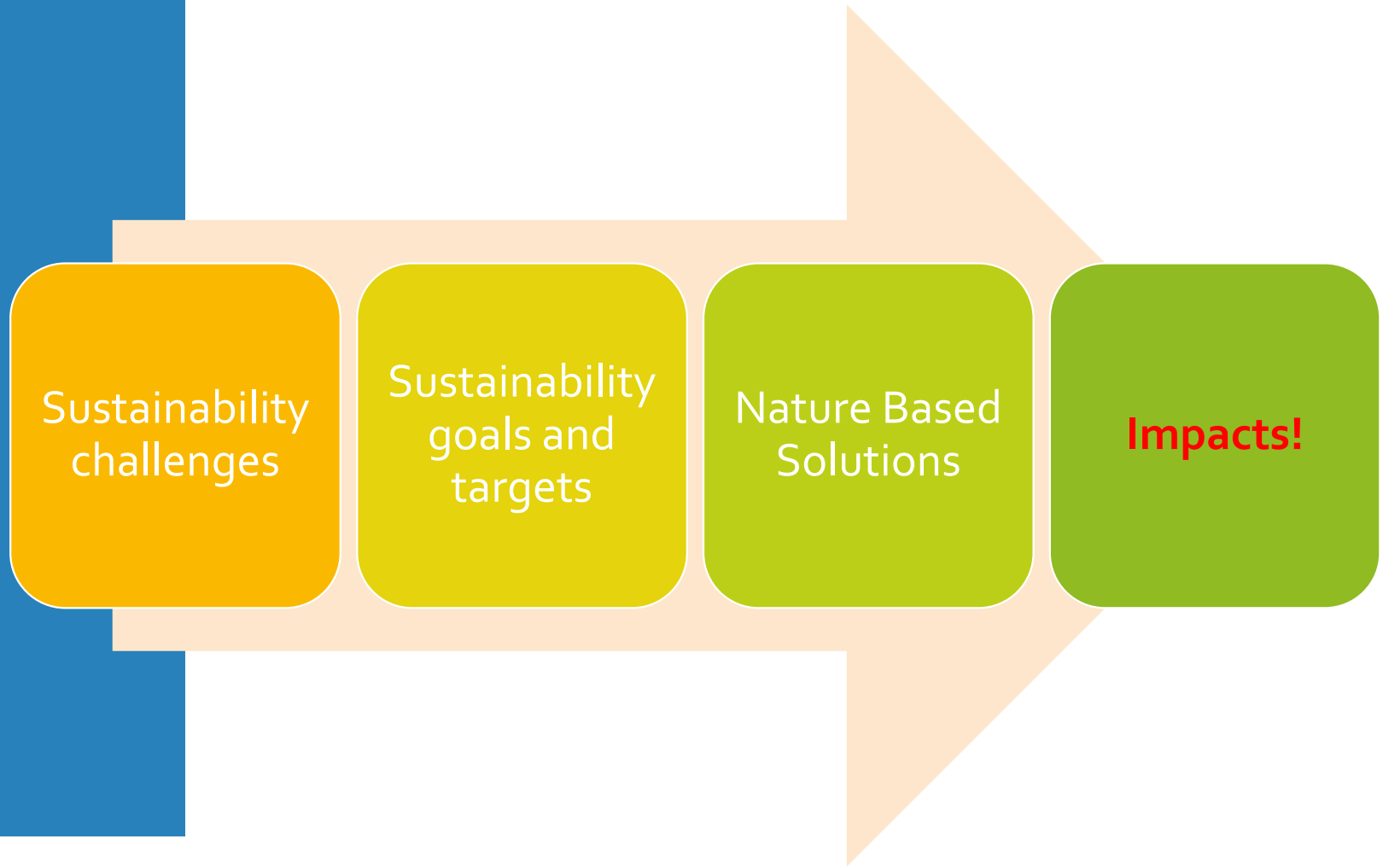
- Urban NBS deliver multiple benefits; the ownership of these benefits is scattered between different actors
- Leads to 2 coordination problems:
  1. Valuation of **multiple benefits** (budget often earmarked for one benefit)
  2. Collaboration between **multiple actors** to co-fund and each reap benefits
- Calls for an **integrative business case** – of benefits and actors
- Need for **investment template** that recognizes value of relevant benefits

Pathways for mainstreaming NBS to contribute to the SDGs

- Pathway 1: Involving a wide spectrum of actors
- Pathway 2: Strengthening the local level
- Pathway 3: Addressing multiple sustainability objectives at the same time
- Pathway 4: Making institutional arrangements for integrated sustainable development
- Pathway 5: Monitoring and assessing sustainable urban transformation.

Source: Gerstetter, C, I. Herb and A. Matei. (2020) Mainstreaming Nature-Based Solutions – Sustainable Development Goals Available at: https://naturvation.eu/system/files/mainstreaming_nbs_for_sdg.pdf

Urban Nature Explorer



www.urbannatureexplorer.com

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