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# ESPON Belgian event

**NNLT and Water Resilience , Palais des Congrès, 03/02/2026**

**Insights from ESPON ReAdapt: Integrating Nature-Based Solutions into Regional and Local Governance**

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## Why this matters?

- Escalating climate risks, unevenly felt. Regions face heat, floods, drought, and coastal risks—with high local variability.
- NbS evidence is rich but fragmented. Many repositories, terms, and formats but slow uptake.
- Decisions need fit for local context. Policymakers want to know which NbS for hazard and capacity, with clear trade-offs.

## ESPON ReAdapt

Aim to enhance climate adaptation across European regions through territorial guidance for climate adaptation by integrating NbS evidence, hazard indicators, and case-tested tools

Key objectives:

- **What works, where, and why?** (NbS concepts, governance, financing, effectiveness)
- **How do climate hazards vary across regions?** (Indicators, maps, uncertainty)
- **How can regions decide faster & better?** (Decision workflow, co-creation, usability)



## Why ReAdapt matters for Belgian context

- Belgian regions face combined risks: coastal flooding, pluvial flooding, heat stress in cities, biodiversity loss and pressure on agriculture.
- Regional and Local authorities must implement EU and national adaptation strategies but often lack integrated tools, comparable evidence and examples.
- ReAdapt insights can support Belgian stakeholders in advancing from isolated pilot projects toward integrated, system-scale deployment of NbS.

# What did we Map? 4 Knowledge Layers



## Policies

EU and national strategies, regulations, and frameworks related to climate adaptation and nature-based approaches



## Projects

EU-funded initiatives (Horizon 2020, LIFE, etc.) implementing NbS across diverse geographies and themes.



## Platforms &

### Networks

Case study repositories, portals, and collaborative initiatives documenting NbS practices and tools



## Scientific

### Literature

Peer-reviewed frameworks, typologies, and theoretical models guiding NbS design and implementation.

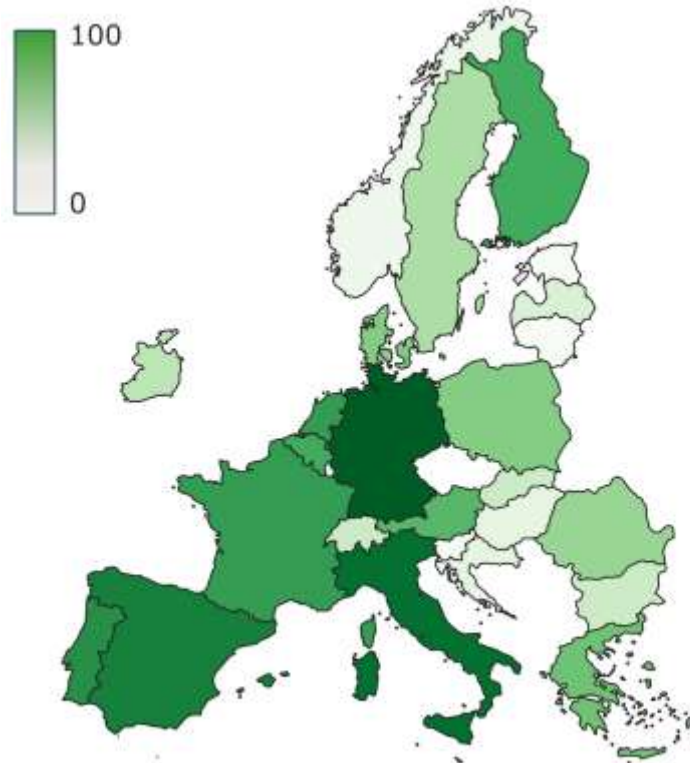
These layers help connect **strategic intent** (policy) with **on ground action** (projects, case studies and knowledge sharing) and **analytical guidance** (research).



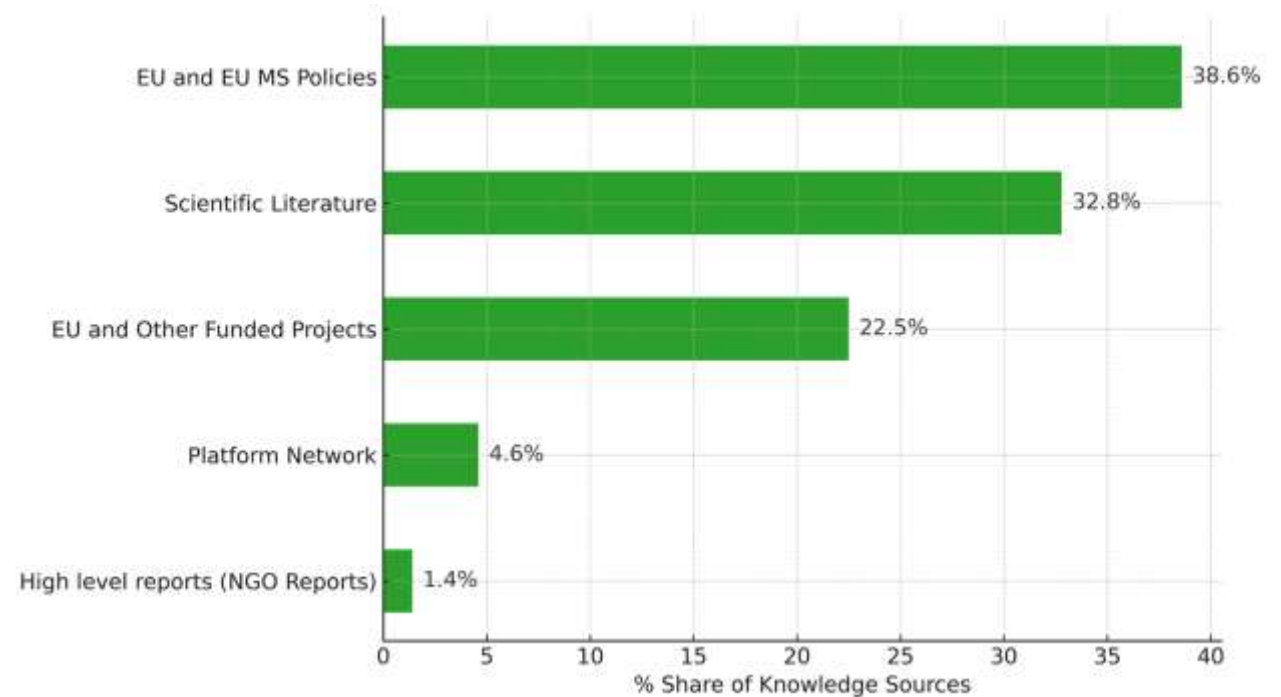
## What we found

- EU provides a strong legal backbone, but Member States diverge.
- Laws dominate overall (37%). Some countries rely on Action Plans (Portugal 59%), others on Laws (UK 53%) or Strategies (Malta 58%).
- 265 projects funded, with € growth across cycles: Horizon Europe (37%) and H2020 (30%) dominate funding.
- Shift from marine/biodiversity focus (FP7) to urban pilots (H2020) and now agroecological & restoration NbS (HE). Coordination concentrated in Germany, Spain, France, Italy, Greece.
- Literature provides strong conceptual development but limited operational guidance and replication evidence.
- Platform are rich but fragmented; underused by practitioners and policymakers.

# Mapping the Knowledge on NbS in Europe



NbS interventions by country

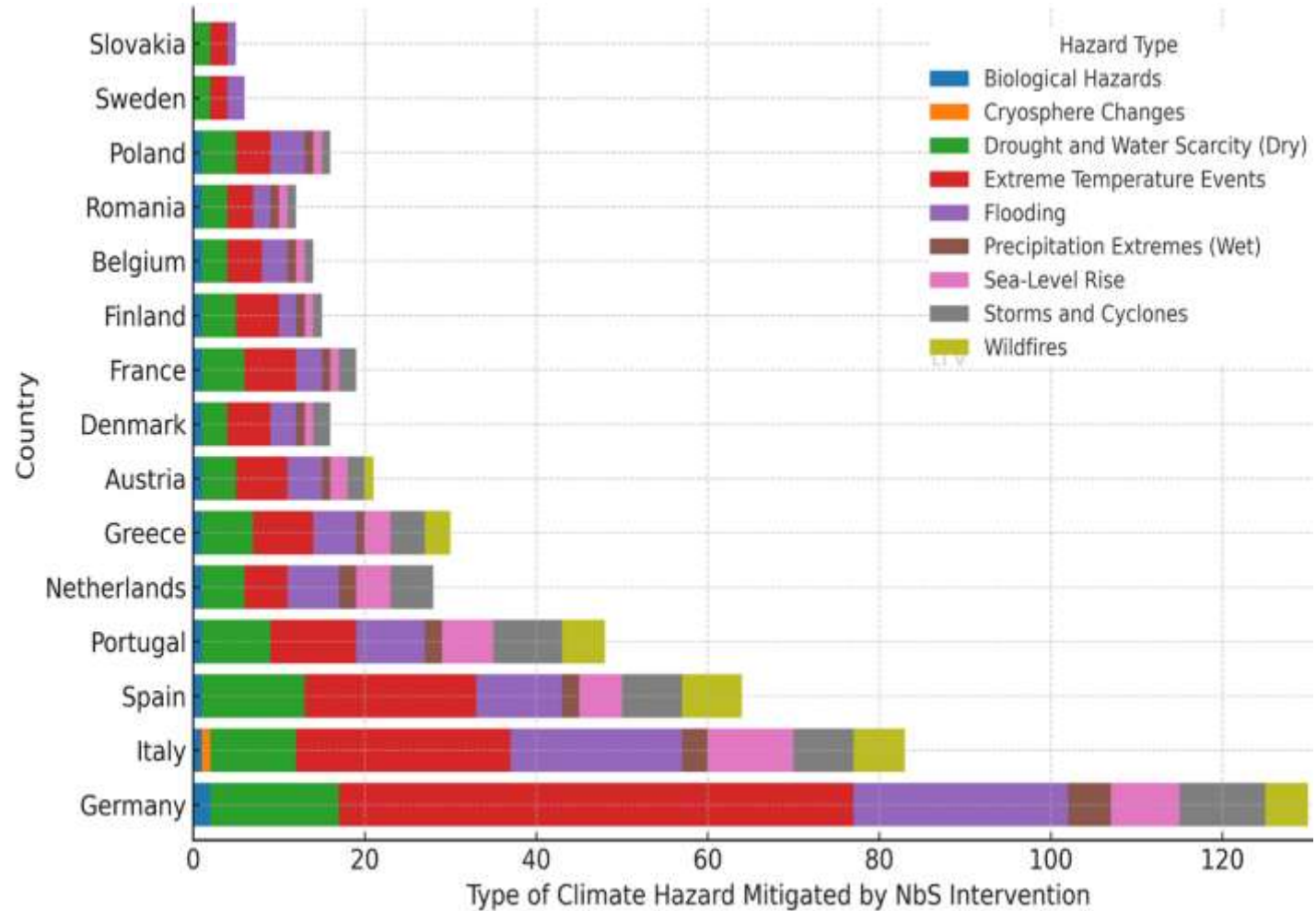
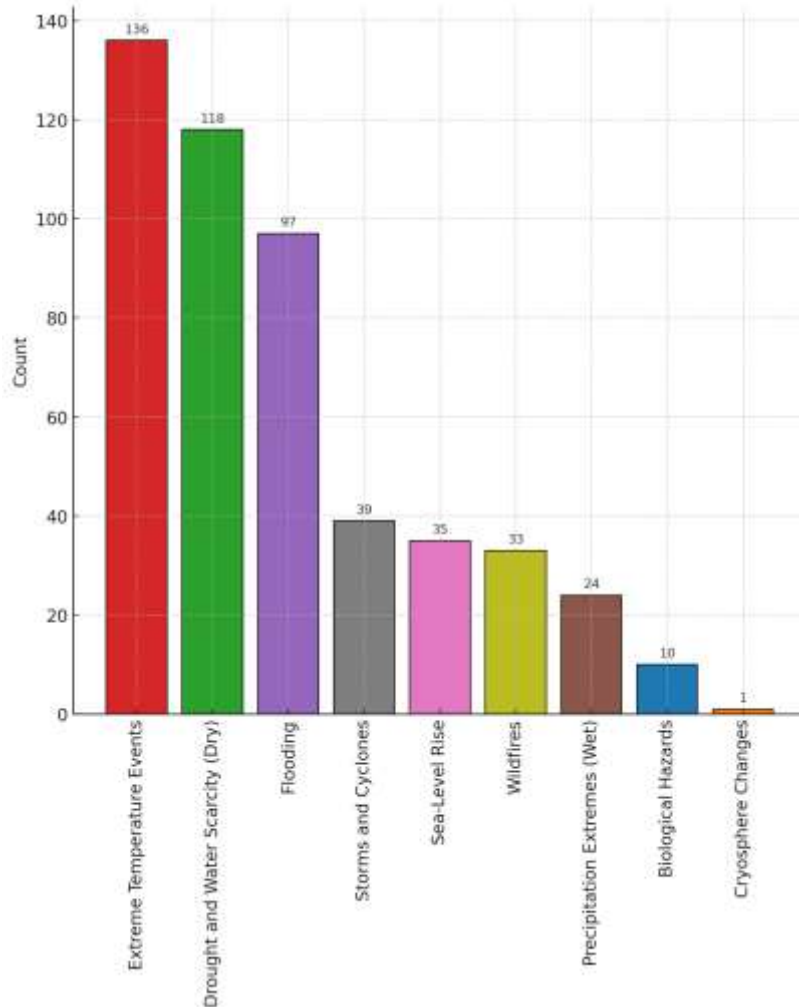


The largest share of entries comes from **EU and EU Member State Policies (39%)**, showing that **policy frameworks are central in shaping NbS evidence.**



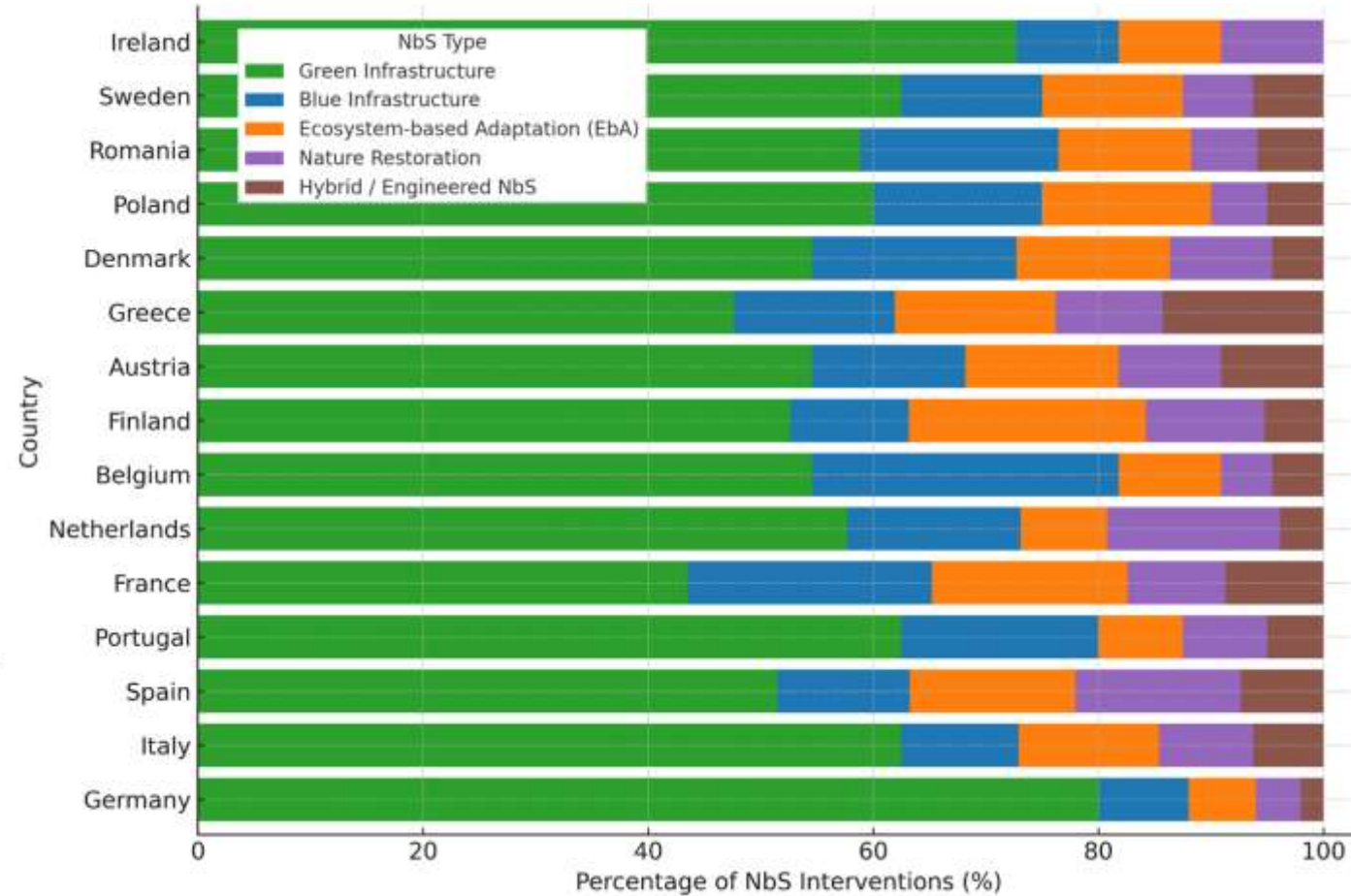
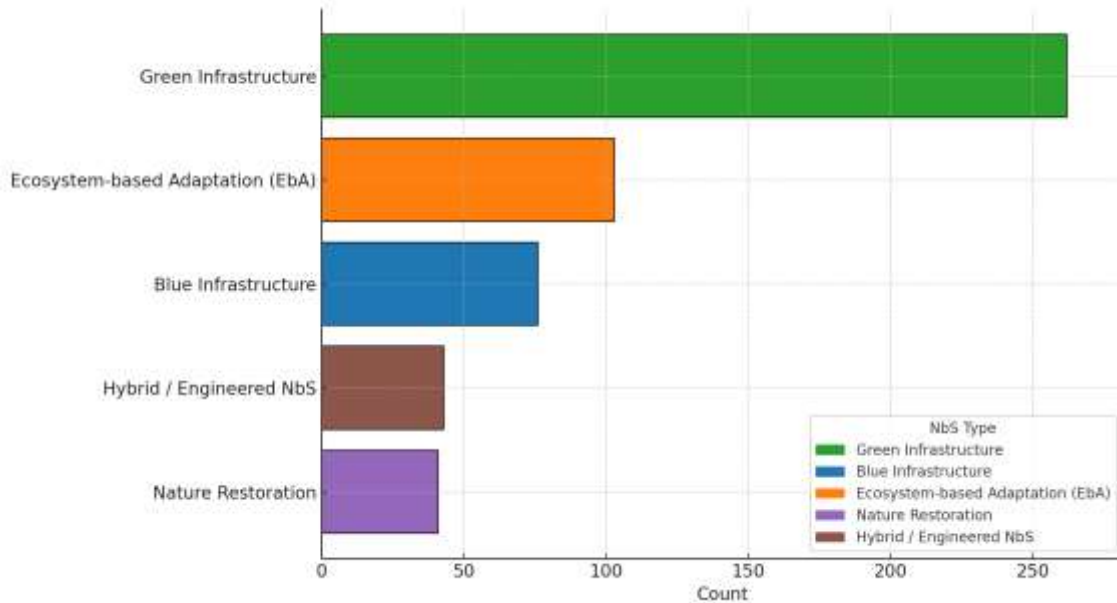
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# Patterns of Climate Hazard



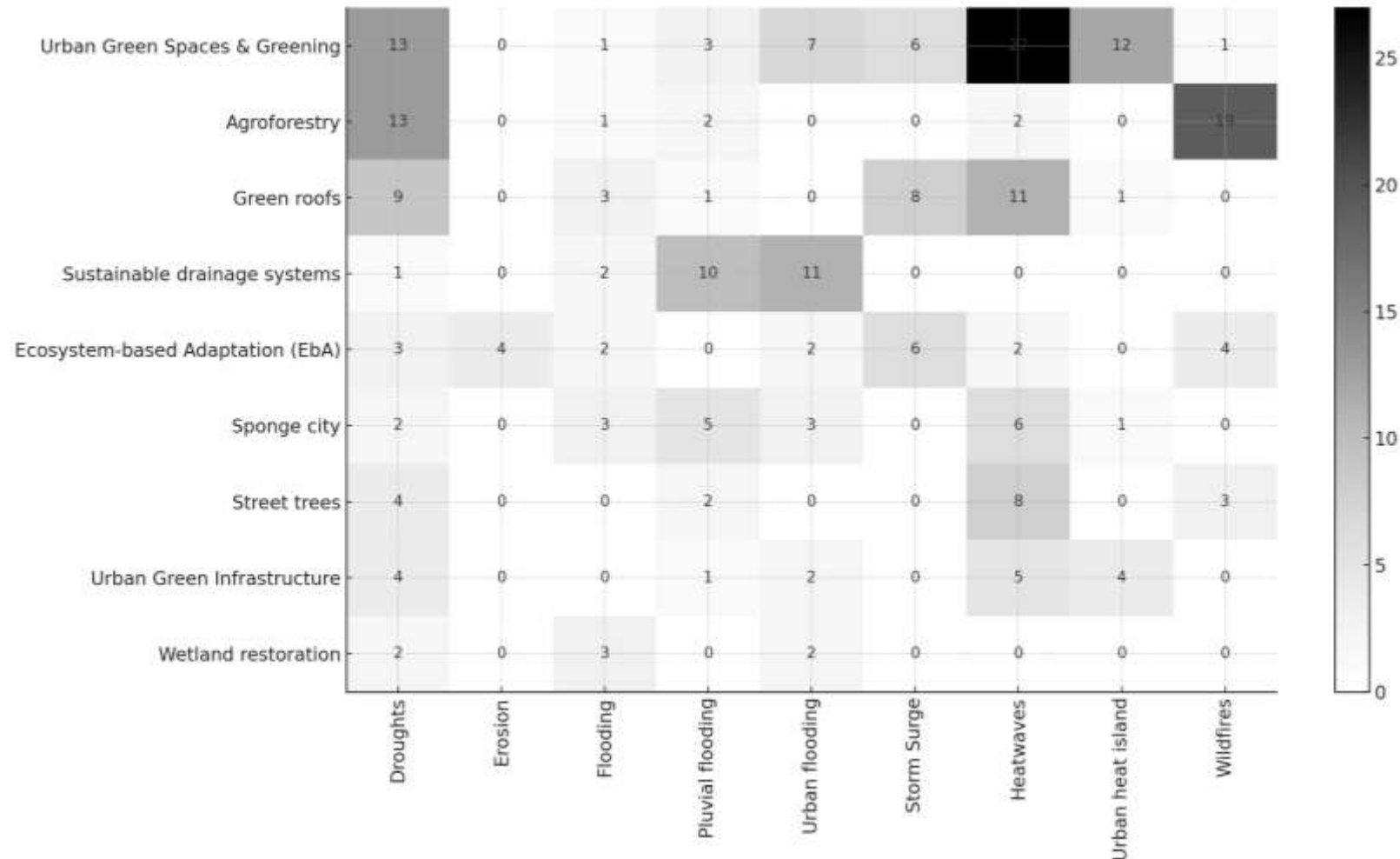


# Patterns of NbS Efforts








# NbS Responses to Climate Hazards



# Scientific Frameworks for NbS :Theory ahead of Practice?

Our mapping includes **400+ peer reviewed** publications and frameworks shaping NbS understanding and implementation: *IUCN's , NbS Categories, EbA, Nature4Cities Typologies, IPBES/EEA frameworks, etc.*

## Core Themes:

-  NbS as **multi-functional solutions**: climate + biodiversity + social equity
-  Emphasis on **co-benefits, participation, and systems thinking**
-  Calls for integration with **risk reduction, health, and urban planning**

## Strengths:

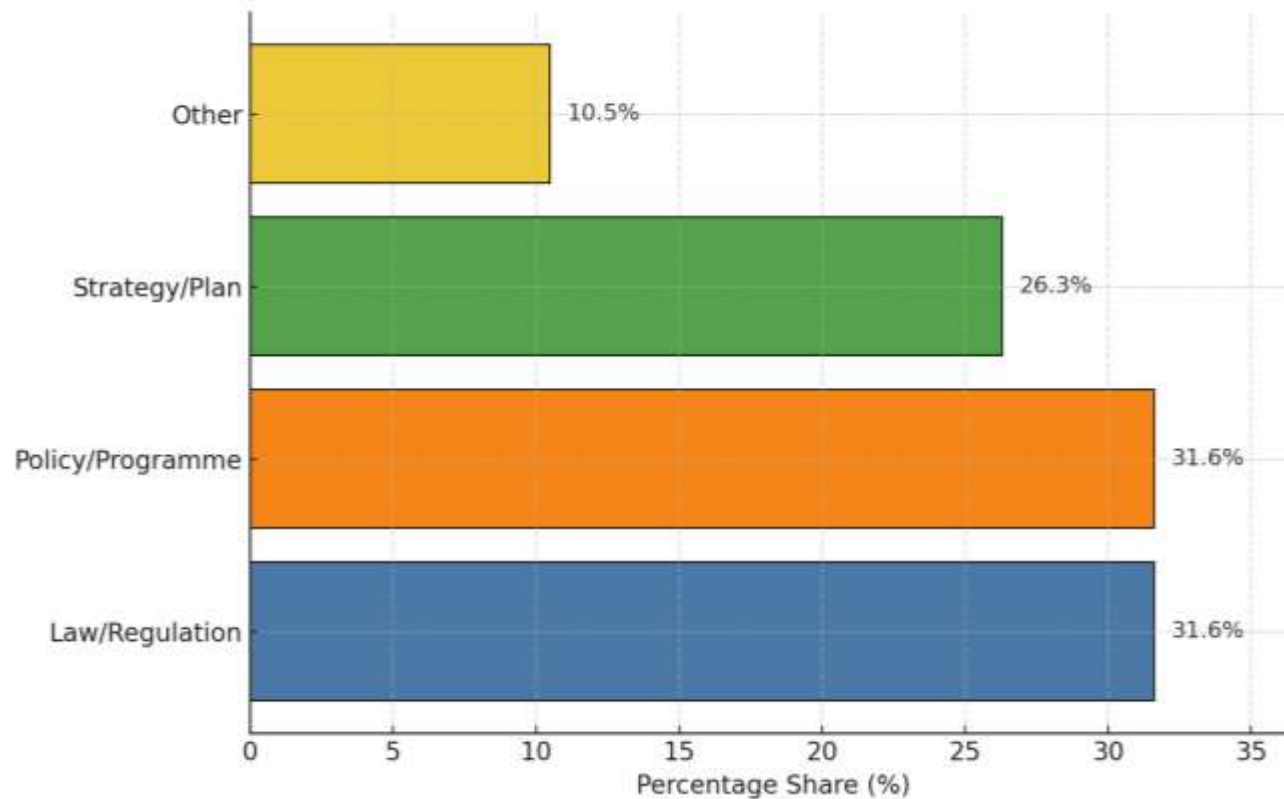
- Strong **conceptual clarity** around NbS definitions and typologies.
- Expanding research on **governance** models, indicators, and performance evaluation.
- **Interdisciplinary contributions**

## Gaps:

- Limited **operational** guidance on how to implement NbS in real-world governance contexts
- Underrepresentation of **local knowledge**
- **Weak linkages** between scientific recommendations and policy tools/funding mechanisms



# Policy Support for NbS: Strong but Fragmented



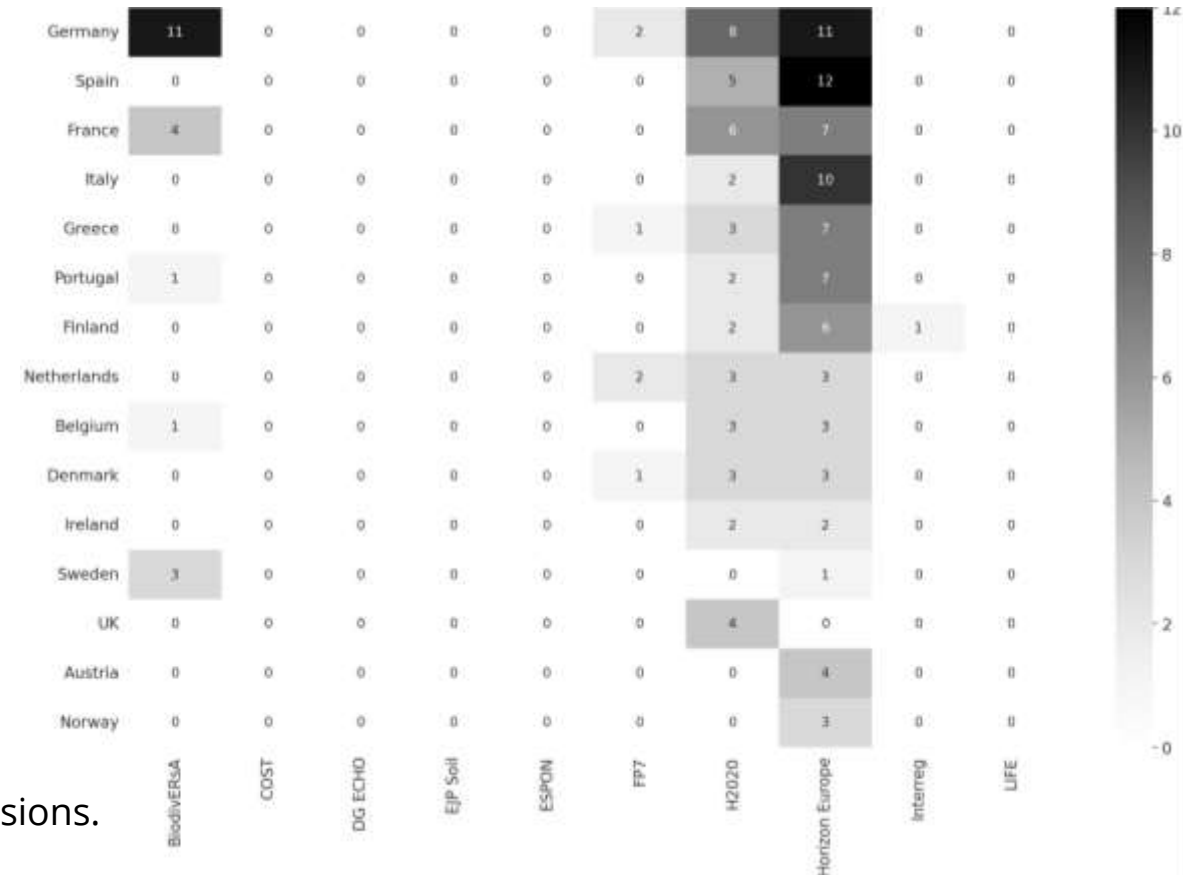
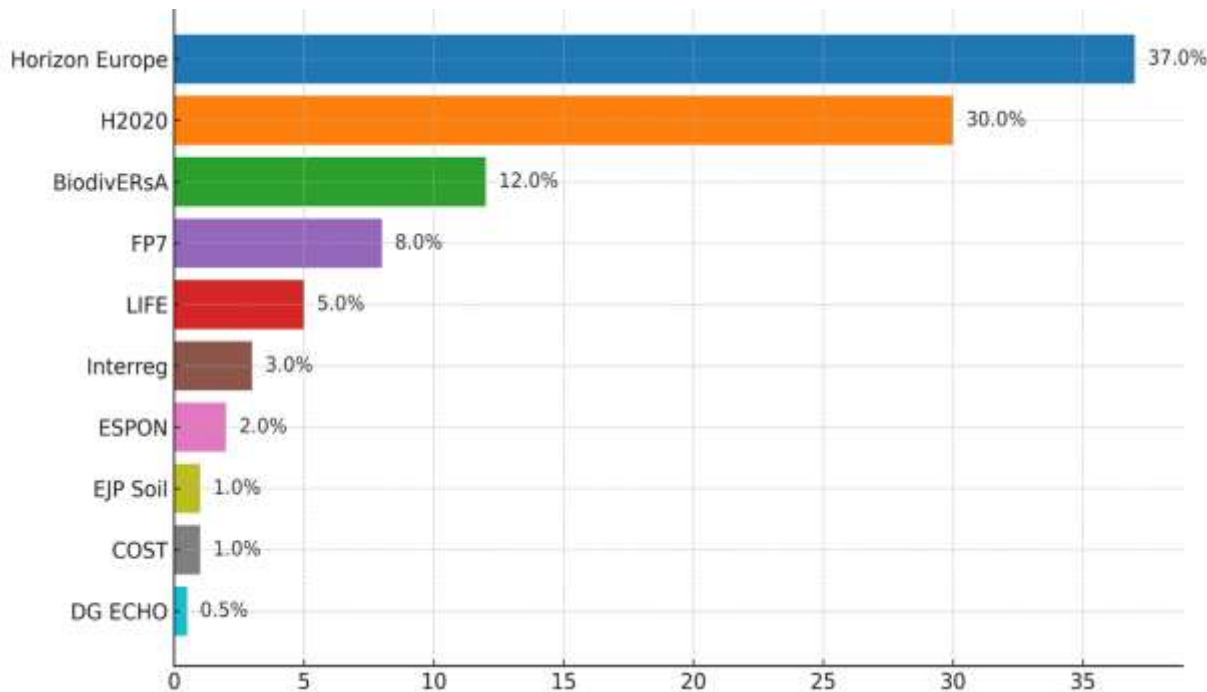
- The EU has a robust **policy landscape** supporting NbS. Our mapping covered over **400** key policy instruments from the EU and its Member States.
- But countries differ: Portugal and Spain rely on **action plans**, the UK and Romania on **laws**, while Malta is **strategy-driven**. This shows diverse governance pathways for mainstreaming NbS.



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# EU Funded NbS Projects – Where & What?

Project by Funding Source(% and 200+)



- EU projects span **urban, rural, coastal**, and governance dimensions.
- Hazards most addressed: **heat, drought, floods**, followed by marine & biodiversity pressures.
- Urban projects dominated by **Green/Blue Infra**, but agroecological and coastal projects are rising under Horizon Europe.

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# NbS Knowledge Platforms: Rich but Underused

The image displays a collage of several digital platforms and maps related to Nature-based Solutions (NbS). At the top left, the ESPON logo is shown alongside the European Union flag and the text 'Co-funded by the European Union Interreg'. To the right, the URBACT logo and another European Union flag are visible, along with the text 'Co-funded by the European Union Interreg'. Below these, the Belgian flag and the text 'BELGIË - BELGIQUE' are present.

The main content area features several overlapping screenshots and maps:




- NATURA**: A screenshot of the Natura website with a navigation bar including 'ROADMAPS', 'ABOUT', and 'RESOURCES'. A 'READ OUR ROADMAPS' button is visible.
- biodiversa+**: A screenshot of the Biodiversa+ website, featuring a header with 'The European Biodiversity' and a sub-header 'supporting excellent biodiversity re... impact on policy and society'. A 'Home' button is visible.
- Case study platform**: A screenshot of a 'Case study platform' with the text 'Examples of good nature-based solutions from around the world'. It includes a 'FILTERS' section with 'Ecosystem' and 'Intervention types' dropdowns, and a map of Europe with a 'Reset zoom' button.
- ESPON Data and Knowledge Portal**: A large central screenshot of the ESPON Data and Knowledge Portal, featuring a search bar and navigation options like 'Home', 'Projects', 'Apps', 'Services', and 'Dashboards'. The main heading is 'ESPON Data and Knowledge Portal' with the tagline 'Inspire Policy Making with Territorial Evidence'. Below the search bar are buttons for 'Search by Topics', 'Search the Datasets', and 'Search by Countries'. A map of Europe is visible in the background.
- ESPON Online MapFinder**: A screenshot of the ESPON Online MapFinder interface, showing a search bar and a list of results.
- ESPON TIA Tool**: A screenshot of the ESPON TIA Tool interface, showing a search bar and a list of results.
- ESPON FUORE webtool**: A screenshot of the ESPON FUORE webtool interface, showing a search bar and a list of results.
- SDGs benchmarking tool**: A screenshot of the SDGs benchmarking tool interface, showing a search bar and a list of results.
- ESPON REGICO TOOL**: A screenshot of the ESPON REGICO TOOL interface, showing a search bar and a list of results.

Other elements include a 'Key prod' section with a 'Climate Intelli' link, a 'News' section, and a 'NATURA' sidebar with a 'Climate Adapt' link.

# NbS Knowledge Platforms: Rich but Underused

We mapped **10+ key platforms and networks** supporting NbS across Europe ( e.g., *ESPON, ClimateADAPT, Oppla, Naturvation Atlas, Urban Nature Navigator, NetworkNature*)

## Roles and services:

-  Case study libraries and best practice databases
-  Tools and indicators for NbS planning and monitoring
-  Peer-to-peer learning, training, and knowledge exchange

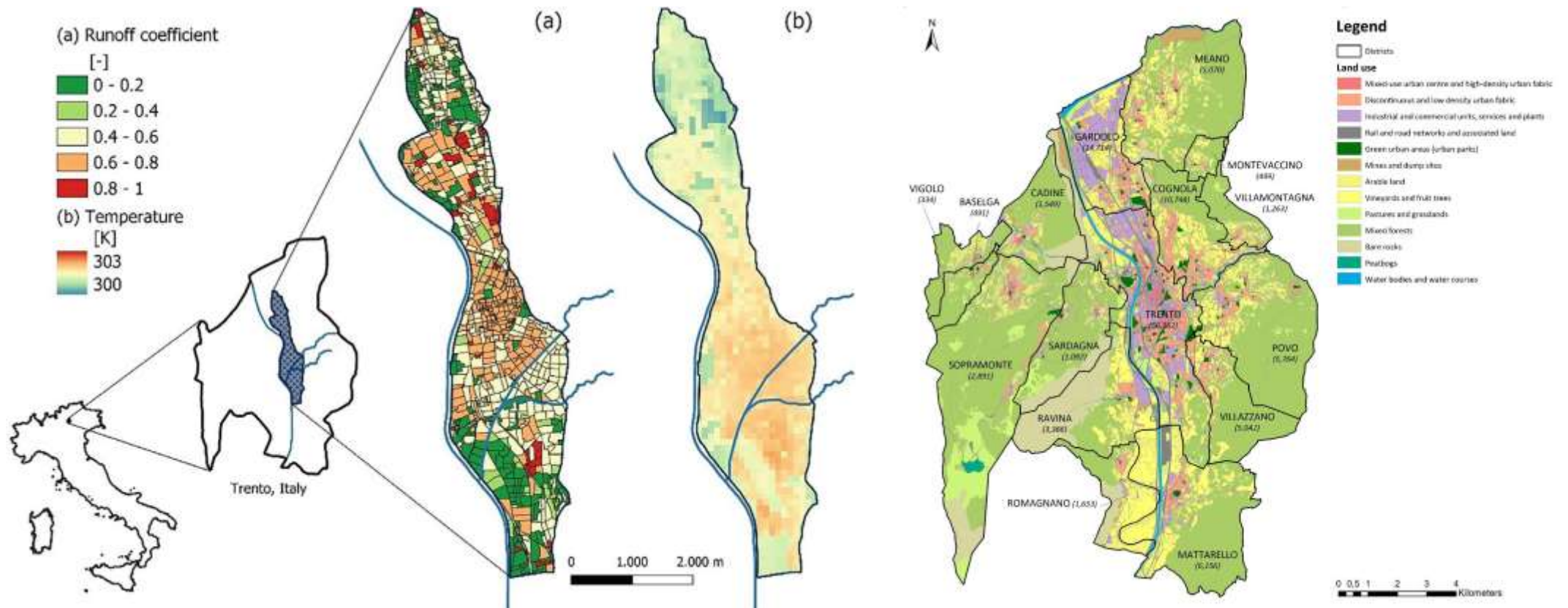
### Strengths:

- Significant investment in **open-access** tools and datasets.
- **Community building** across municipalities, researchers, and NGOs.

### Gaps:

- **Low interoperability** between platforms, knowledge remains siloed.
- Many tools **not actively maintained**
- Limited usability for **local practitioners** and policymakers.

# Why Trento needs Nature-Based Solutions?

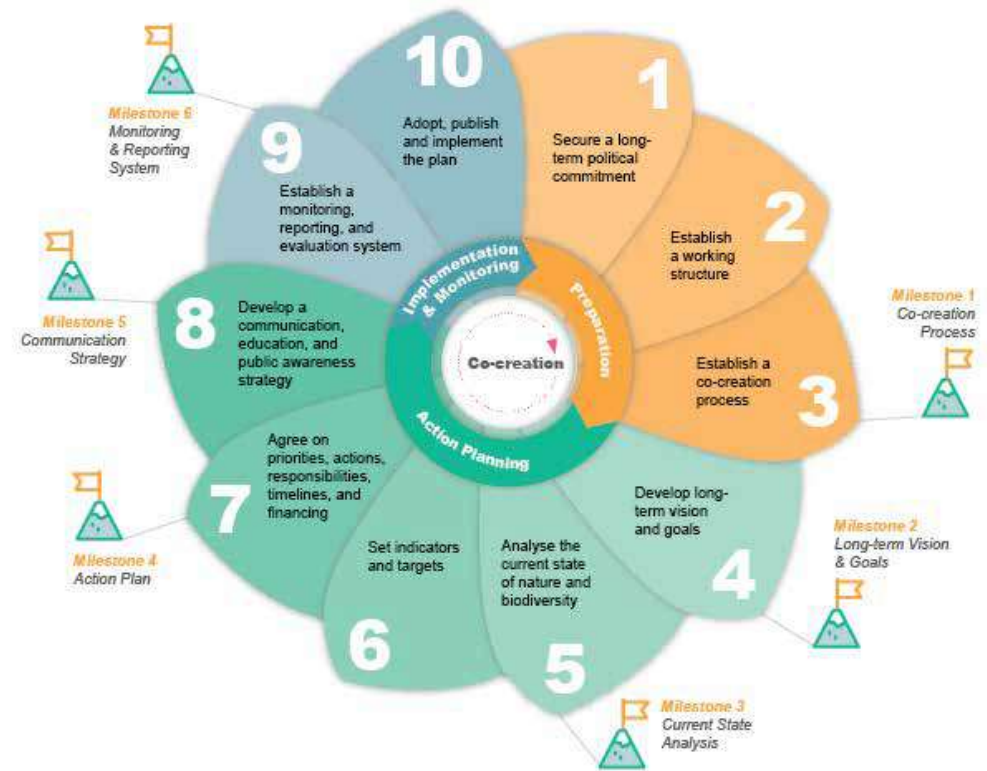


# The Urban Green Plan of Trento



## Key Focus Areas:

- Urban Landscape: Street trees, green roofs.
- Riverine Landscape: Restoring Fersina stream.
- Agricultural Land: Urban/peri-urban farming.
- Forested Landscapes: Management of surrounding mountains.



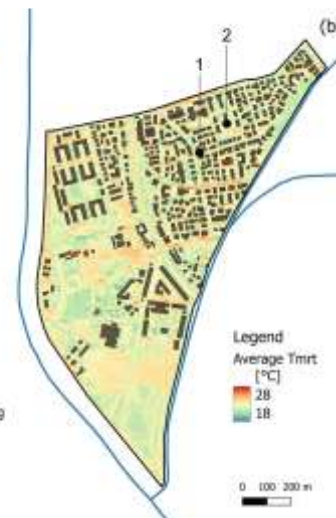
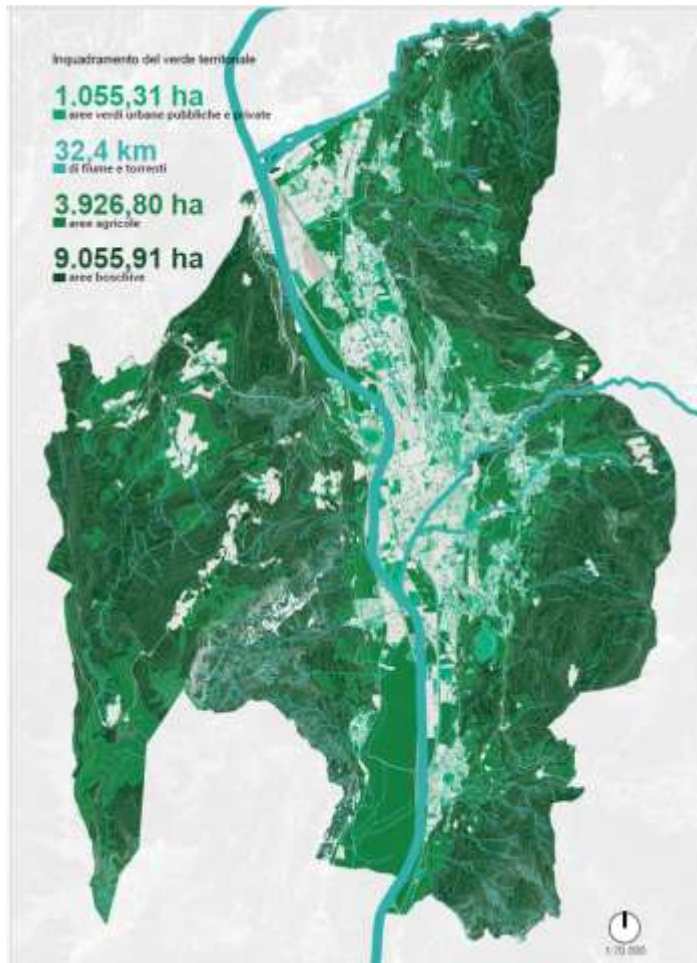
# The Urban Green Plan

## Learning from past and current efforts

- Alptrees
- Los\_Dama!: Landscape and Open Space
- Development in Alpine Metropolitan Areas
- EnRoute
- **Biovalue**
- Meridian
- Stardust
- Progetto per il CO2 Open Park
- Progetto BeeTrento
- **SELINA**



# The Urban Green Plan





# Ongoing NBS projects



# Emerging findings on implementation of NbS

## Governance

- Fragmented responsibilities between environment, water, planning and transport limit integrated NbS deployment.

## Finance

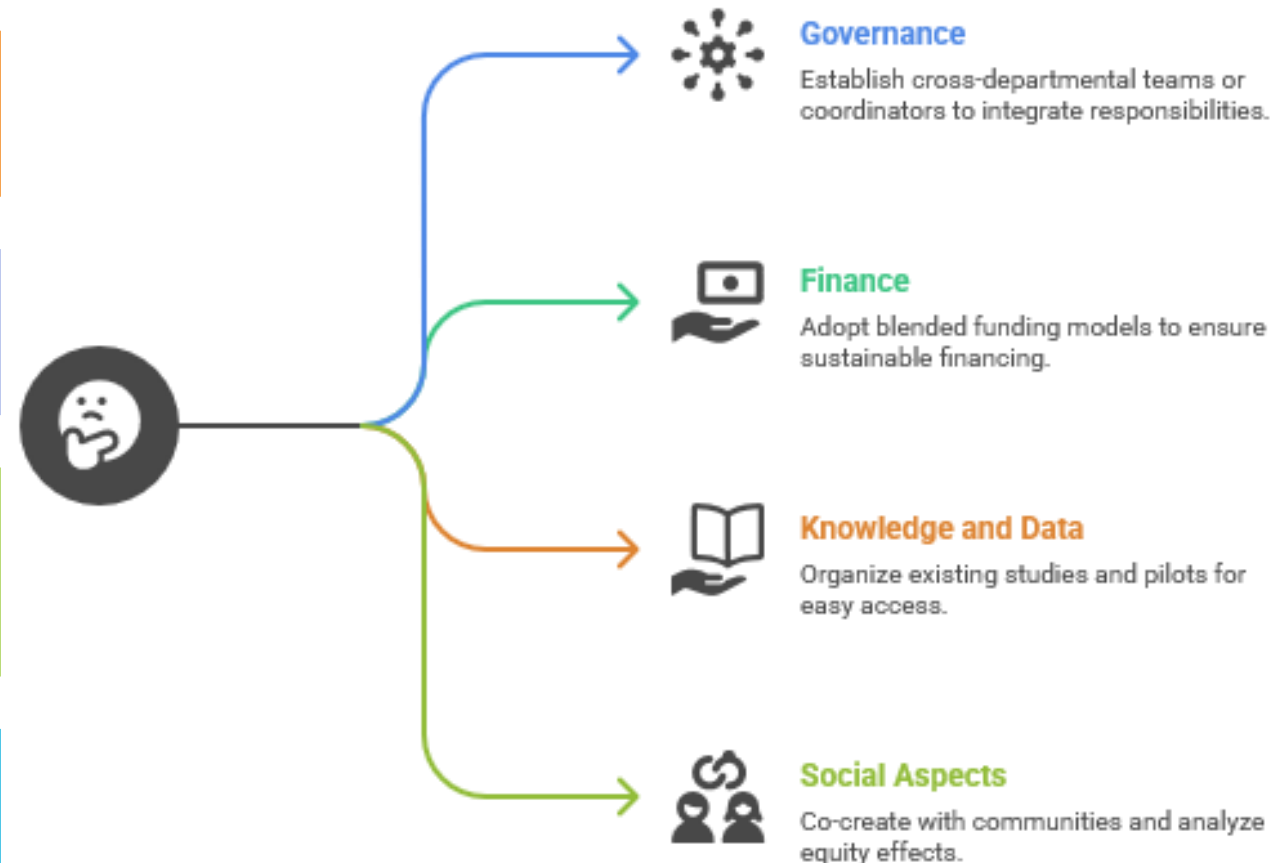
- Short project cycles and fragmented funding streams slow down scaling.

## Knowledge and data

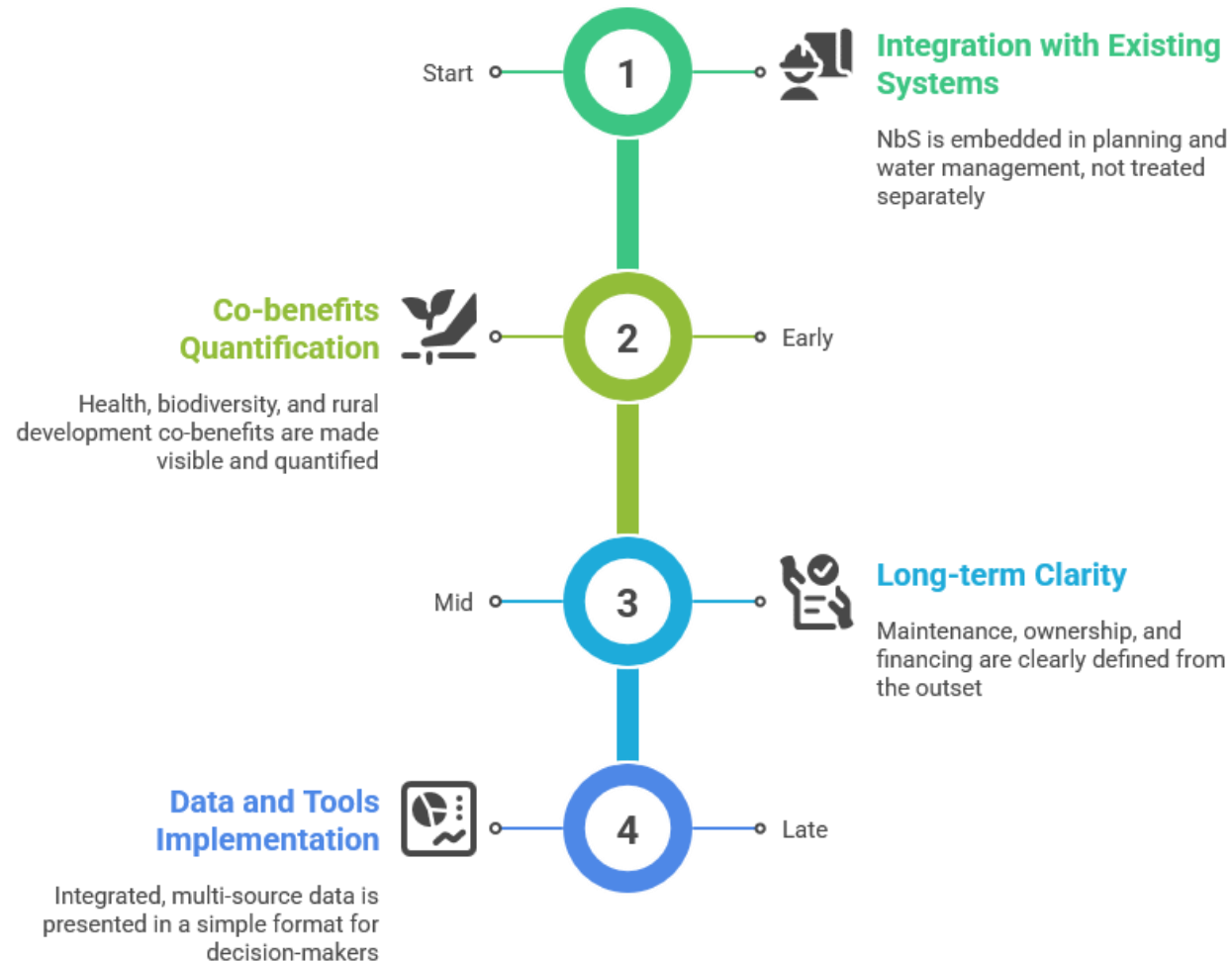
- Many pilots and studies exist, but evidence is scattered and not coded in a way that planners can search by hazard, context or governance setting.

## Social aspects

- Equity and distributional effects are often under-analysed.



# Takeaway



- Bridge **policy-practice gaps** by translating EU strategies into clear territorial guidance.
- Secure **continuity** with long-term **funding** and **institutional support** beyond short-term pilots.
- Enhance **interoperability** of NbS knowledge base.

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**Thank you!**



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