

# INTEGRATION OF NBS IN URBAN POLICY AND PLANNING.

## Evidence from Barcelona, Lisbon and Turin.

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### PROBLEM CONTEXT & AIM

- Urban policy-makers, practitioners and researchers advocate for the integration of NBS into urban development.
- But the incorporation of a new and interdisciplinary solutions, like NBS, in urban governance is a complex matter.
- NBS are still far from being mainstream in urban development.
- It is still unclear how to uptake NBS into dominant urban governance, planning and policy mechanisms.

This study **aims to explore the integration of NBS in urban policy and planning, in the three European municipalities, Barcelona, Lisbon and Turin**, part of the H2020 project, CONEXUS - CO-producing NBS and re-stored Ecosystems - transdisciplinary neXus for Urban Sustainability.

### RESEARCH QUESTIONS & APPROACH

1. What are the current state of integration of NBS?
2. How can NBS be integrated in cities' governance, planning and policy mechanisms?
3. Are there clear barriers and entry points for NBS within urban policies and planning?

The research follows a **qualitative mixed method, comparative case study** approach, composed of:

**Document analysis** - analysis of aims, strategies, objectives, plans, programs and projects on a municipal, metropolitan, regional, national to take stock of the existing official governance structure in place.

**Problem-centred [Expert] Interviews** - to compile insights from the field, bringing the perspectives of those closely involved in NBS development.

### INITIAL FINDINGS

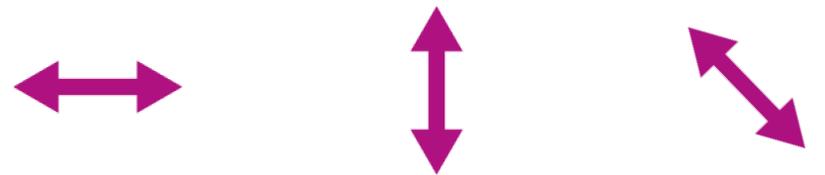
- **The terminology of NBS is used, but infrequently.** Other key words are used to describe NBS, with emphasis in urban forest.
- **Human health and wellbeing; biodiversity and ecological connectivity; and climate change** mitigation measures were dominating the metrics for NBS integration. There was limited attention to social ES.
- Regarding Horizontal integration, **public actors and academia were the most present actors** determining NBS implementation.
- All cities shows **increased cross-departmental planning but collaboration of the health, economic, education and communication departments were often absent** or not yet explicit.
- Policies and planning documents largely call for the participation of the civil society, but **in practice participation is still novel** and often facing many barriers, being usually enabled on later stages.
- The **private sector was the least integrated**, with limited knowledge on how to approach it and fears to do so, due to legal complexities.
- **Younger policies demonstrated a higher integration** with other policies and agendas as well as a higher vertical integration.
- **Cross-cutting issues of sustainability, resilience and climate change were the gateways** between municipal, regional and national actions.
- NBS development was perceived as intrinsically connected to the international agendas but also seen as growing demand of the city.
- **COVID-19 causes a surge in interest for re-naturing the cities.**
- The connectivity in bio-physical and institutional context across metropolitan and regional areas are being acknowledge, but still in its initial state - **conflict of interest among neighbouring cities hinders an integrated planning across municipal borders.**

Drawing upon the multiple meanings of integration, the research delves into the integration of NBS into urban governance, as well as:

**Horizontal Integration**  
among actors

**Vertical Integration**  
among levels

**Transversal Integration**  
among territories



### DISCUSSION

The results show **increasing efforts in the incorporation of NBS into urban policy and planning** on a systematic manner, **revealing a possible shift** from the conventional way that urban governance is perceived, **towards a more flexible, inclusive and hybrid one**, highlighted as a critical factor for NBS by the literature.

The evidence provided by this research reflect possible **first steps for breaking the silo mentality** currently predominant in mainstream urban governance, and fostering decisions making across multiple actors, levels and scales.

But operationalizing such governance mode is a challenging process. The **lack of incorporation of public departments beyond the environmental sphere, remains a barriers to NBS uptake, alongside the incorporation of the private sector** and a closer relationship with local community.

**Cross-cutting themes as sustainability, resilience, and climate change can function as entry points** for NBS integration, as well as the momentum awoken by the COVID-19 pandemic.

This research brings evidence from an EU context, for further understanding of NBS integration, **non-EU NBS governance experiences are needed.**

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