

# Nature-Based Solutions In Europe

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Horizon 2020 - European Dialogue and Clustering Action

**Transforming Cities, Enhancing Well-being: innovating with nature-based solutions**

**EU-BRAZIL SECTOR DIALOGUE ON NBS**

A Coruña, Spain, 16-18 May 2018



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## EU-BRAZIL SECTOR DIALOGUE ON NBS aims at:

*“Fostering a learning alliance about Nature-Based Solutions (NBS) for sustainable cities, which will be the basis for identifying common research and innovation agendas for the cooperation between the EU and Brazil in this particular field.”*

Currently, a **mapping study** is being carried out to select relevant examples of successful Nature-Based Solutions that have been recently implemented or are under development both Europe and Brazil.

The cases are being studied and compared with a particular emphasis on their potential for **REPLICABILITY**, **SCALABILITY** and **ADAPTATION** to the local context (economic, environmental, socio-cultural, etc.).



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# 2 NBS examples from the EU: Tampere and Milan

## NORTHERN EUROPE

**Tampere, Finland (225,150 inhabitants)**

*Case: Vuores eco-efficient district*

*Main challenges:* Waterfall in Finland will increase by 25% in the coming years due to climate change. Therefore, critical issues are **flooding** and **storm water management**. Other challenges that the city is facing include **air and water pollution** and **reduced biodiversity**.

## SOUTHERN EUROPE

**Milan, Italy (4.1 million inhabitants)**

*Cases: Bosco Verticale and Parco Agricolo Sud*

*Main challenges:* **Abandoned areas** (in the metropolitan area) recently redeveloped have provided opportunities to implement green solutions. Milan needs to deal with **traffic pollution**. More than 60 % of the soil is sealed, therefore reducing **soil consumption** is also a major challenge.



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# TAMPERE, Southern Finland



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# TAMPERE: Vuores eco-efficient district



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# MILAN, Northern Italy

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Bosco Verticale,  
Porta Nova  
neighbourhood



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# MILAN: Bosco Verticale

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**2** residential towers 110 and 76 m high

**900** trees (each measuring 3, 6 or 9 metres)

**20,000** plants (a wide range of shrubs and floral plants) distributed according to the sun exposure of the facade

**2 ha** of forest – equivalent to the ecosystem services from the plants in the two towers (CO<sub>2</sub> storage, air quality, biodiversity improvement)



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# MILAN: Parco Agricolo Sud



Different agricultural areas. Over **1,000** active farmers are involved. Peri-urban farming is of primary importance not only for soil conservation but also for food production.

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# MILAN: Parco Agricolo Sud

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- Offers farming, forestry, cultural and recreational activities, and the use of NBS
  - Preserves the landscape and ensures environmental recovery of the areas, connecting town and country and linking outer areas with the urban green system
  - Some areas are dedicated to rebuilding ecosystems and reintroducing fauna species that are becoming rarer

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# Replicability, scalability and local adaptation

## TAMPERE > Multi-stakeholder

### *Lessons learnt:*

- **Co-creation processes** with different stakeholders have provided the opportunity for mapping different viewpoints for further development of existing NBS.
- Increased **social cohesion**.
- **Co-operation with local universities and a SME** producing bio-char is leading to the development of new bio-filtration solutions to treat contaminated waters which also creates new business opportunities around NBS.

## MILAN > Multi-stakeholder

### *Lessons learnt:*

- Bosco Verticale – Improved **biodiversity** and **air quality**; **CO2** storage; **less urban sprawl**; noise control; quality of life.
- Parco Agricolo – **Complexity**; not only contributes to the protection of the environment and promotes a variety of agricultural practices, but also provides opportunities for leisure and recreation.



# Thanks for your attention!

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