Nature-Based Solutions In Europe

Carmen Antuña Rozado, MSc(Arch), Senior Scientist
VTT Technical Research Centre of Finland Ltd.

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







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.).







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.









TAMPERE, Southern Finland

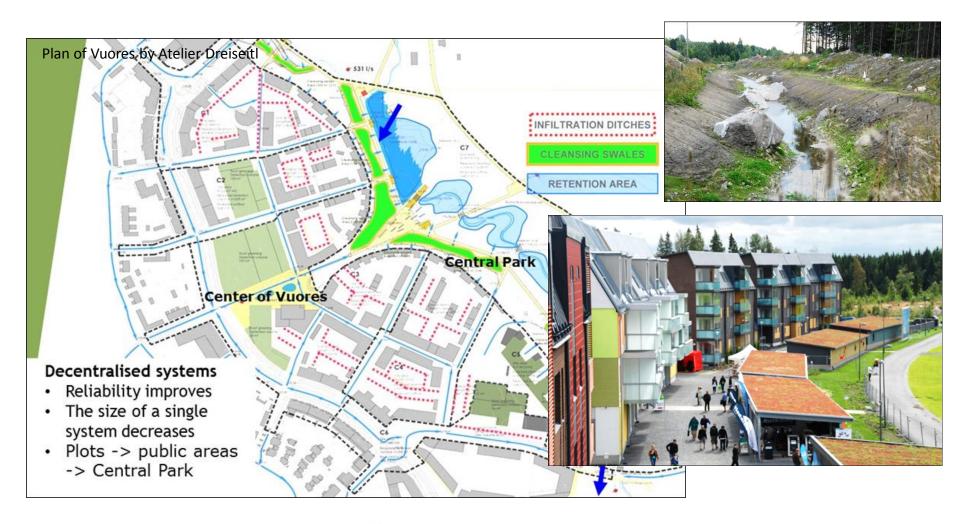








TAMPERE: Vuores eco-efficient district











MILAN, Northern Italy











MILAN: Bosco Verticale











MILAN: Parco Agricolo Sud











MILAN: Parco Agricolo Sud



- 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

Copyright: Parcø Agricolo Sud di Milano









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!

For further information, please contact: carmen.antuna@vtt.fi





