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Scaling-up the implementation of NBS

Juraj Jurik
Bratislava Forum on NBS
Oct 16, 2019



This project has received funding from the European Union's Horizon 2020 research and innovation programme, Call H2020-SC5-2016-2017 Greening the economy, under grant agreement No 730338.

Presentation Outline

1. GIB Foundation

2. ThinkNature Platform

(2016 - 2019)  **thinknature**

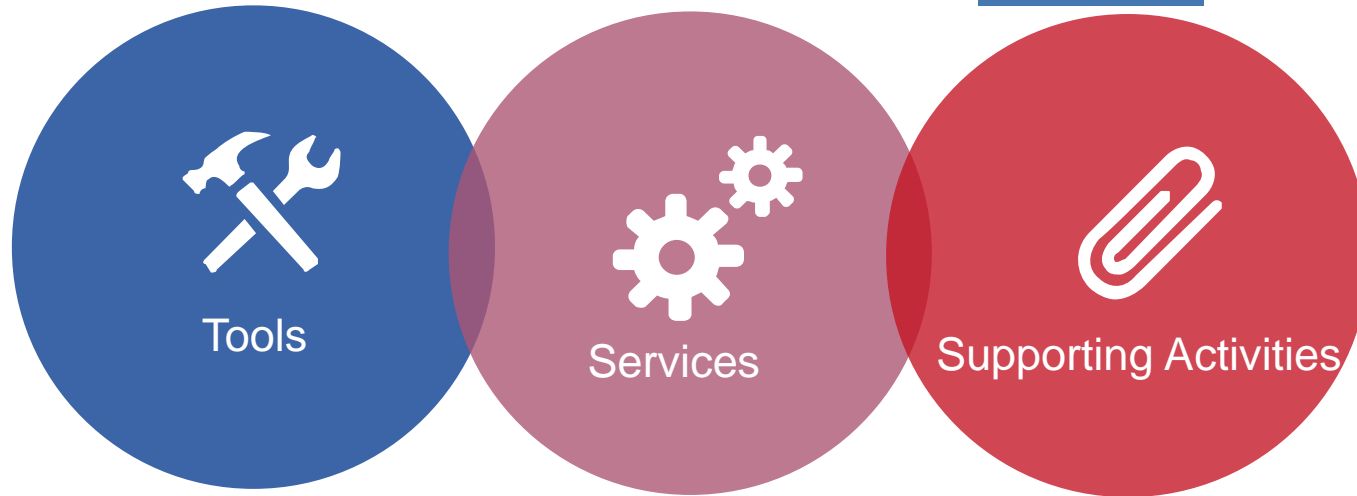
4. Adaptive Cities through Nature-Based Solutions (ACT on NBS)

(2019-2021)  **Climate-KIC**



Global Infrastructure Basel Foundation (GIB)

Meeting the challenge of designing, implementing and financing sustainable and resilient infrastructure projects



- **SuRe® Standard:**
The Standard for Sustainable and Resilient Infrastructure
- **Framework for Financial Instruments (FFIs):**
Framework approach using SuRe® criteria in specific financial instruments

- **Capacity Building:**
Tailored support to key stakeholders to enhance their knowledge and skills
- **Impact Measurement:**
Range of services to collect data, measure and demonstrate project's impact
- **Implementation Services:**
Consultancy services to support project planning and development
- **Advisory Services:**
Support services to the needs of project developers, financiers, and public sector institutions

- **Outreach:**
Engagement programmes in selected countries
- **Policy, Research & Advocacy:**
Workstream to share knowledge and promote sustainable and resilient infrastructure
- **Networking Events & Communication:**
Series of regional events to meet, share knowledge and experience while having access to state of the art experts

Nature-Based Solutions



Climate change - induced risks

Paris, heat stress



Copenhagen, flooding



Biodiversity Loss



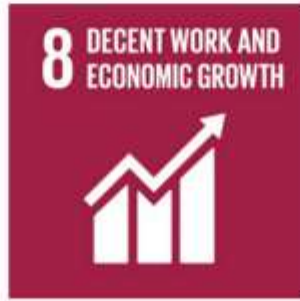
Human Health and Wellbeing



- Depression
- Obesity
- Type 2 Diabetes
- Little human to human interactions

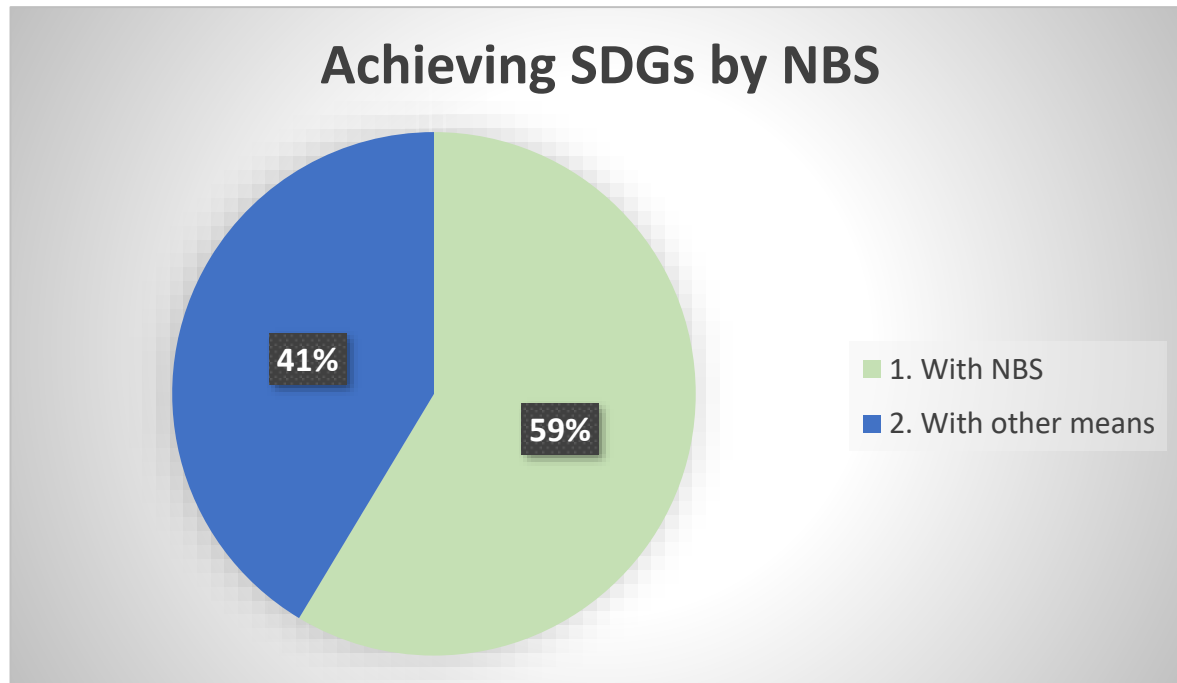


International Policies working with NBS



Achieving SDGs through NBS:

- ✓ Nature may have a role to play in achieving at least **12 SDGs** focused directly on improving the environment and/or dimensions of human well-being.



ThinkNature Objective

The development of a **multi-stakeholder communication platform** that will support the understanding and the promotion of **nature based solutions** in local, regional, EU and International levels.

The ThinkNature Platform will bring together multi-disciplinary scientific expertise, policy, business and society, as well as citizens and it will create a wide **interactive society** that builds **new knowledge**.



Yanweizhou Park in Jinhua City

3. Capacity Building - Case studies' portfolio

NbS Case Studies



Case Study Hub – Knowledge Repository - Dialogue

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Case Studies

"A NBS Case Studies Hub"
Explore exemplary NBS case studies worldwide and learn from best practice.

Search:

oppla

NBS Case Studies

Operationalising ecosystem services in urban land-use planning in Shanghai, China
Supporting a regular discussion on ecosystem services in urban land-use planning in Shanghai, China. This is a collaborative effort between the Shanghai Municipal Government and the University of Cambridge, UK, to explore the potential of ecosystem services in urban land-use planning.

Value chain of urban ecosystem services in Oslo
Supporting a regular discussion on ecosystem services in urban land-use planning in Oslo, Norway. This is a collaborative effort between the Norwegian Government and the University of Cambridge, UK, to explore the potential of ecosystem services in urban land-use planning.

Supporting the design and implementation of a green infrastructure strategy in Vienna, Austria
Supporting the design and implementation of a green infrastructure strategy in Vienna, Austria. This is a collaborative effort between the Austrian Government and the University of Cambridge, UK, to explore the potential of green infrastructure in urban land-use planning.

Supporting sustainable land use and water management practices in the urbanising landscape of Hungary
Supporting sustainable land use and water management practices in the urbanising landscape of Hungary. This is a collaborative effort between the Hungarian Government and the University of Cambridge, UK, to explore the potential of sustainable land use and water management in urban land-use planning.

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NBS Knowledge Hub

Knowledge Repository
A Hub for online resources on NBS state-of-the-art practice

Search:

Latest entries

NBS Research Report: Urban Land-Use Planning in Shanghai, China
This report was developed by the Shanghai Municipal Government, the University of Cambridge, and the University of Cambridge, UK, to explore the potential of ecosystem services in urban land-use planning in Shanghai, China. It was published on 27 June 2018.

Value Chain of Urban Ecosystem Services in Oslo
This report was developed by the Norwegian Government, the University of Cambridge, and the University of Cambridge, UK, to explore the potential of ecosystem services in urban land-use planning in Oslo, Norway. It was published on 27 June 2018.

Supporting the Design and Implementation of a Green Infrastructure Strategy in Vienna, Austria
This report was developed by the Austrian Government, the University of Cambridge, and the University of Cambridge, UK, to explore the potential of green infrastructure in urban land-use planning in Vienna, Austria. It was published on 27 June 2018.

Supporting Sustainable Land Use and Water Management Practices in the Urbanising Landscape of Hungary
This report was developed by the Hungarian Government, the University of Cambridge, and the University of Cambridge, UK, to explore the potential of sustainable land use and water management in urban land-use planning in Hungary. It was published on 27 June 2018.

Upcoming Events

NBS Videos

Participate in the Dialogue!
Present and Debates under Four Priority Areas and Enhance Your Knowledge on NBS. Join the Discussion, Get A...

Operationalising ecosystem services in urban land-use planning in Shanghai, China
The forum will include and discuss dialogue among the various stakeholders (private and public sector, academia, practitioners, policy makers) on how to operationalise ecosystem services in urban land-use planning in Shanghai, China. The dialogue will address the existing research needs for land-use planning and the role of NBS in urban land-use planning. The forum will also explore the potential of NBS in urban land-use planning.

Value chain of urban ecosystem services in Oslo
The forum will include and discuss dialogue among the various stakeholders (private and public sector, academia, practitioners, policy makers) on how to operationalise ecosystem services in urban land-use planning in Oslo, Norway. The dialogue will address the existing research needs for land-use planning and the role of NBS in urban land-use planning. The forum will also explore the potential of NBS in urban land-use planning.

Supporting the design and implementation of a green infrastructure strategy in Vienna, Austria
The forum will include and discuss dialogue among the various stakeholders (private and public sector, academia, practitioners, policy makers) on how to operationalise green infrastructure in urban land-use planning in Vienna, Austria. The dialogue will address the existing research needs for land-use planning and the role of NBS in urban land-use planning. The forum will also explore the potential of NBS in urban land-use planning.

Supporting sustainable land use and water management practices in the urbanising landscape of Hungary
The forum will include and discuss dialogue among the various stakeholders (private and public sector, academia, practitioners, policy makers) on how to operationalise sustainable land use and water management in urban land-use planning in Hungary. The dialogue will address the existing research needs for land-use planning and the role of NBS in urban land-use planning. The forum will also explore the potential of NBS in urban land-use planning.

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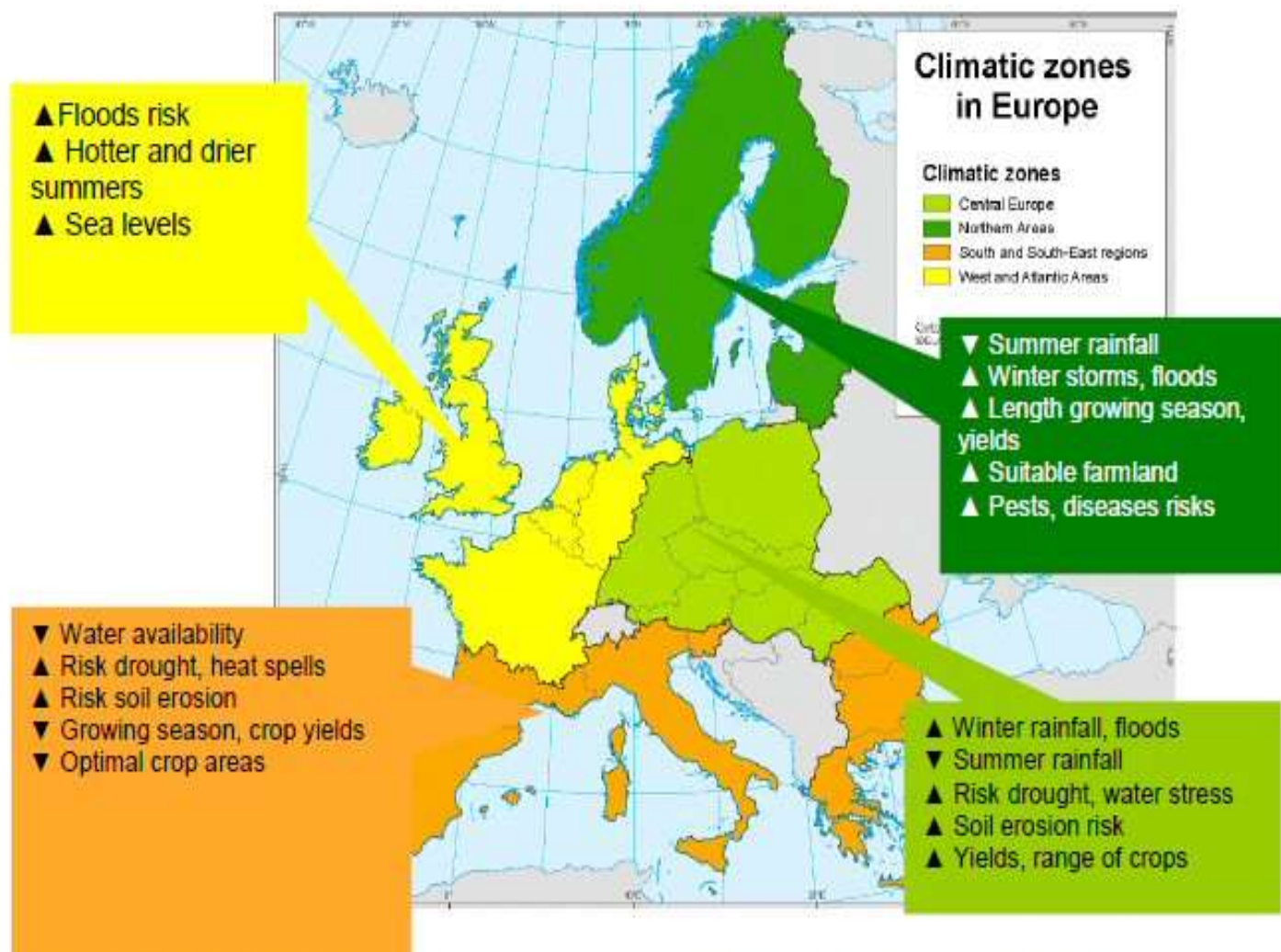
ThinkNaturePlatform

facebook.com/ThinkNaturePlatform

2. Stakeholder Engagement - Think-and-Do Tanks

1. City representatives
2. Regional/National Authorities
3. Universities and academia
4. NGOs
5. Private sector

Climate change – Possible impacts on EU agriculture



Source: DG Agriculture and Rural Development, based on EEA reports, JRC and academic studies

2. Stakeholder Engagement



Name

Country

Stakeholder Type

Ecosystems

Methods and Tools

Regions

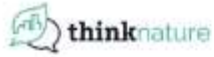
Topics

Users per page

Map View



ThinkNature Brainstorming Forums - Enhanced Dialogue



HORIZON2020
Clustering Action

TRANSFORMING CITIES, ENHANCING
WELLBEING: INNOVATING WITH NATURE-
BASED SOLUTIONS

UNIVERSITY OF A CORUNA (SPAIN),
16-18 MAY 2018



1. Sustainable Urbanization in Cities
2. Restoring Degraded Ecosystems
3. Climate Change Adaptation and Mitigation
4. Risk Management and Resilience

4-5 April 2019

Paris Forum on NBS

Addressing major societal challenges:
climate change adaptation-mitigation,
risk management and resilience



© Sophie Robichon

Program Booklet



Identification of Barriers and Policy Analysis



HORIZON 2020
Coordination and support actions



Development of a multi-stakeholder dialogue platform and **Think** tank to promote innovation with **Nature** based solutions

WP5: Identification of barriers and uptake of the necessary decision making mechanisms of the various local authorities and stakeholders

Deliverable D5.1

Barriers Landscape and Decision Making Hierarchy for the Sustainable Urbanisation in Cities via NBS

Authors: A. Bernardi and S. Enzi (CNR-ISAC)



This project has received funding from the European Union's Horizon 2020 research and innovation programme, Call H2020-SC5-2016-2017 Greening the economy, under grant agreement No 730338

July 2018



HORIZON 2020
Coordination and support actions



Development of a multi-stakeholder dialogue platform and **Think** tank to promote innovation with **Nature** based solutions

WP5: Identification of barriers and uptake of the necessary decision making mechanisms of the various local authorities and stakeholders

Deliverable D5.2 v1.2

Barriers Landscape and Decision Making Hierarchy for the Restoration of Degraded Ecosystems via NBS

Also drawing on results reported in Deliverable D4.2 Report on Dialogue Steering Statement Papers and Dialogue Outcomes for Restoration of Degraded Ecosystems for Nature-Based Solutions

Authors: S. Barwort and B. Rabb (UNIVERSITY OF LEEDS)



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July 2018

HORIZON 2020
Coordination and support actions



Development of a multi-stakeholder dialogue platform and **Think** tank to promote innovation with **Nature**-based Solutions

WP5 – Identification of barriers and uptake of the necessary decision making mechanisms of the various local authorities and stakeholders

Deliverable 5.3

Policy proposals and decision-making mechanisms for Climate change Adaptation and mitigation using NBS

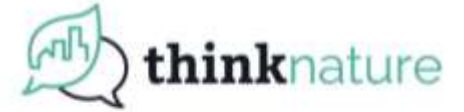
Authors: Eudine Daly (CSTB), Dorothee Marchand (CSTB), Lu Fanchen (CSTB), Ivo Danassi (CSTB), Alexis David (ICTP), Francesco Pilla (ICTP), University College of Dublin), Rai Flaminia (ICTP), Escola Superior Galileia), Denis Kakkola (TUUC), Nikolaos Nikolaidis (TUUC)

20 June 2019



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HORIZON 2020
Coordination and support actions



Development of a multi-stakeholder dialogue platform and **Think** tank to promote innovation with **Nature**-based Solutions

WP5 – Identification of barriers and uptake of the necessary decision making mechanisms of the various local authorities and stakeholders

Deliverable 5.4

Policy proposals and decision making mechanisms for Risk Management and Resilience

Authors: S. Stagakis (FORTH), G. Somarakis (FORTH), N. Chryssoulakis (FORTH), CNR, UNILEEDS, N. Nikolaidis (TUUC), M. Ubbi (TUUC), E. Geni (E2ARC), S. Van Rempsey (E2ARC), J. Jurik (GIB)

ThinkNature Webinars

January - June 2019

ThinkNature is organizing a series of four webinars between January and June of 2019 that will introduce and cover several aspects of *Nature-Based Solutions* (NBS) to a wide audience. The objectives of this webinar series is to raise awareness and understanding on the concept of NBS and to support and promote knowledge on multiple aspects of NBS design and implementation. The expected target audience would be researchers, policy-makers, practitioners and businesses that are active or interested in NBS.

Each webinar will focus on a different aspect of NBS design and implementation:

- ▶ Webinar 1 - NBS: Concept, Practices and Benefits **Completed**
- ▶ Webinar 2 - Technology and Practice of NBS **Completed**
- ▶ Webinar 3 - Financing and Business Models for NBS **Completed**
- ▶ Webinar 4 - Governance Models for NBS: Policies, Strategies and Decision Making Mechanisms **Completed**

Discussion - Q&A, M. Santamouris, T. Armour, D. Theochari, FORTH - ThinkNature Webinar 2



The ThinkNature Handbook – Capacity Building

Main Contents:

1. INTRODUCTION
 2. SCOPE
 3. CLASSIFICATION OF NATURE-BASED SOLUTIONS
 4. MULTIPLE AND MULTI-SCALE BENEFITS
 5. TECHNOLOGY AND PRACTICE
 6. FINANCING AND BUSINESS MODELS
 7. POLICY AND DECISION MAKING MECHANISMS
 8. FUTURE PERSPECTIVES
- ANNEX
- CASE STUDIES' PORTFOLIO

https://platform.thinknature.eu/system/files/thinknature_handbook_final_print_0.pdf?fbclid=IwAR0RwRJxeNhhs4p8YaBs4YdnIWRBYVJrperCCq1-yprmP_ymReMZIEMBbM





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Example 1: Văcărești Natural Park



Văcărești Nature Park, 1989

Photo credit: Andrei Bîrsan

Example 1: Văcărești Natural Park



Examples 2: Green Tram Tracks

Financing

Kanton Basel
(Public Finance)

Costs

Asphalted tracks

Green tracks are estimated to be approximately 15-20% cheaper than asphalt)

Green tracks

Green tracks are 30-40% more expensive than gravel.

Gravel tracks



Credit: J. Jurik

CASE STUDY 3: Stream Park, Sion, Switzerland



CASE STUDY 3: Stream Park, Sion, Switzerland



CASE STUDY 3: Stream Park, Sion, Switzerland



CASE STUDY 4: Zürich, Münsterhof



Credit: Google Mapy



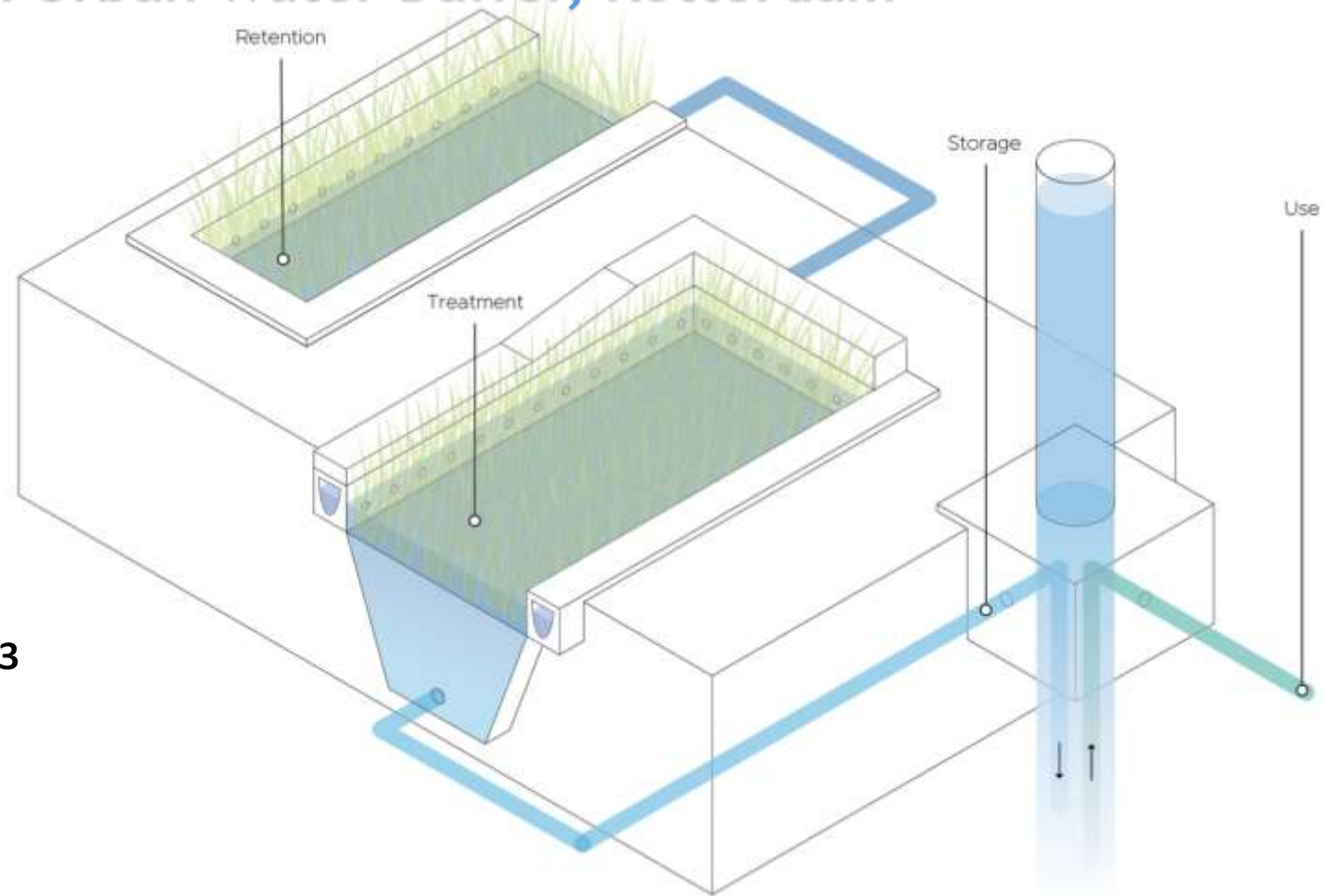
Credit: Stadt Zürich

CASE STUDY 4: Zürich, Münsterhof



CASE STUDY 5: the Spangen Urban Water Buffer, Rotterdam

- Reduction of pluvial flooding by 50mm
- Enhancement of special quality
- Source of water 15 000 m³ per year



Credit: Field Factors

CASE STUDY 5: the Spangen Urban Water Buffer, Rotterdam

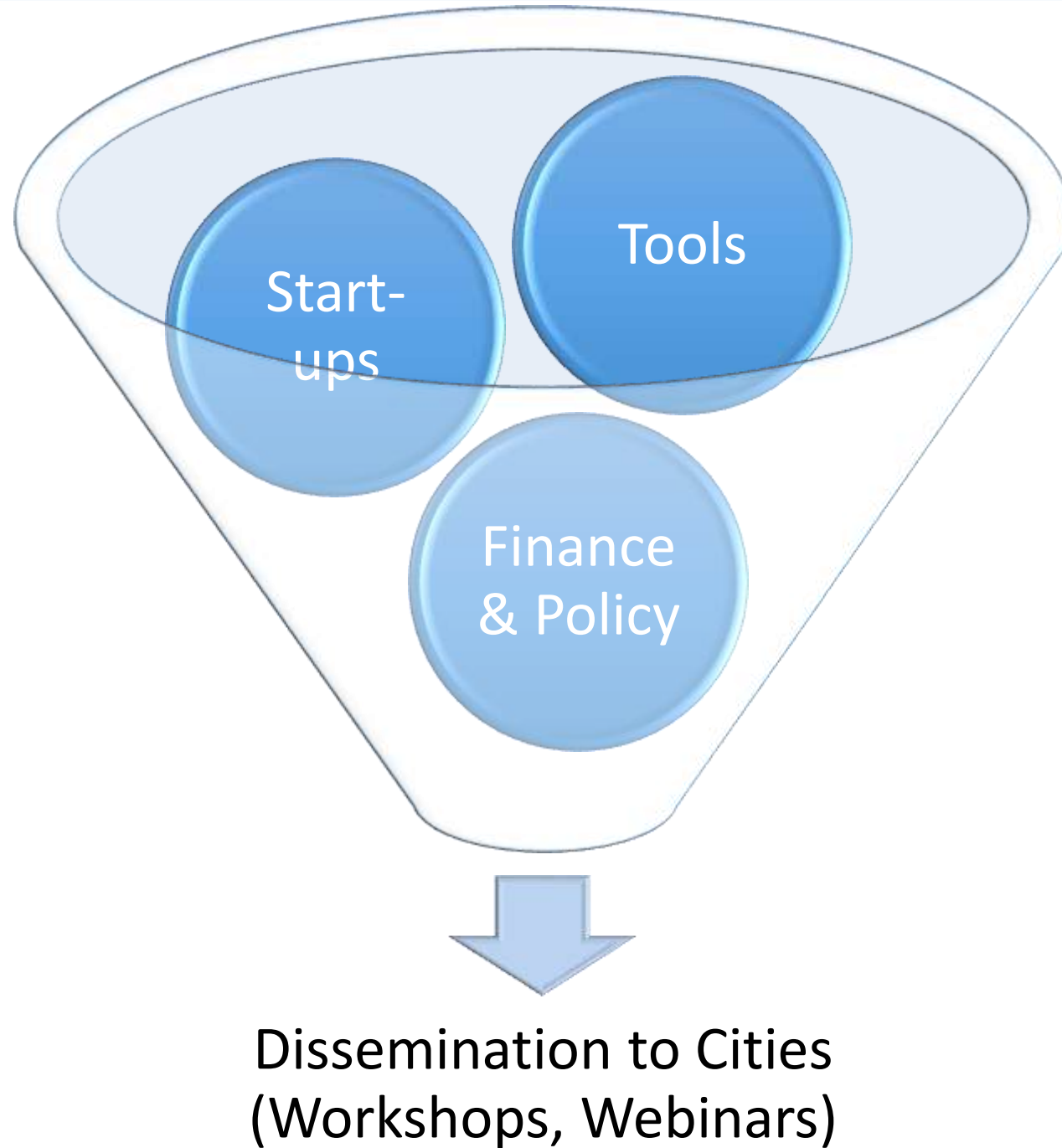


The wetland of the urban water buffer Hybrid solution (Credit: Field Factors)

Adaptive Cities Through Nature Based Solutions

Create more liveable, resilient cities through substantially increasing the introduction of nature-based solutions and enhancing natural systems.

#ACTonNBS Topics





#ACTonNBS Partners

Global Infrastructure Basel Foundation (GIB)

Deltares

IRE Liguria

Wageningen Environmental Research

University of Bologna

Technical University of Madrid

Technical University of Delft

Icatalist

Resilience Brokers

Climate KIC

#ACTonNBS Cities

- Milan
- Madrid
- Orleans Metropole
- Torino
- Prague
- Vejle
- La Spezia
- Savona
- Genova
- Warsaw
- Amsterdam (Engineering dept)
- London
- Bratislava - Rača
- Utrecht
- Valladolid
- Bologna
- Nicosia



Ďakujem pekne

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