Interreg CENTRAL EUROPE

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CONE

Technical Report

Activity A1.4:
Training package development
Deliverable D1.4.2:
CONE toolbox: knowledge transfer and exchange (NBS)

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1. Introduction

The CONE Toolbox was developed to support partners, pilot cities, and Living Lab (LL) facilitators in strengthening their knowledge base and technical capacity for planning and implementing nature-based solutions (NbS). It translates the scientific and methodological content from Activity A1.4 (D1.4.1 Training of Trainers) into practical, accessible learning materials.

The Toolbox consolidates key knowledge required in WP2, particularly for the preparation of pilot actions and the participatory co-design processes in LLs. It includes videos, presentations, and curated literature supporting climate adaptation, NbS design, stakeholder engagement, and river basin management.

The Toolbox content is intended for continuous use throughout the project and will be updated with additional deliverables such as the Living Lab Protocol, Guidelines, and Pilot Manuals.

2. Structure of the Toolbox

The Toolbox consists of 11 educational films and presentations, each addressing a core thematic area relevant for pilot development, as well as an additional literature package supporting deeper learning.

Content is organised into 5 thematic clusters:

1. Climate change fundamentals
2. Nature-based solutions & urban resilience
3. Context assessment & co-design
4. Stakeholder engagement
5. Thematic NbS applications (Stormwater Management & Heat Stress Mitigation & River Basin and Embankment Management)

Each film corresponds to a topic delivered during the Training of Trainers workshops and is fully aligned with the needs of the Living Labs under WP2.

3. Detailed content of the Toolbox

Below is a synthesis of the Toolbox content, combining descriptions from both source documents.

Film 1	**Basics of climate change** - Causes of climate change - natural and anthropogenic factors - Consequences of climate change - global and regional impacts	Magdalena Gajewska, GUT
Film 2	**Adaptation and mitigation strategies for cities** - NBS - definition and types - Benefits of NBS in urban environments + ecosystem services - The role of NBS in climate change adaptation and mitigation	Magdalena Gajewska, GUT
Film 3	**Collaborative research and context analysis** - Urban planning and design for climate resilience	Dominika Wróblewska, GUT

	- Methods for assessing local environmental and social contexts - Techniques for identifying local needs and barriers	
Film 4 & Film 5	**Stakeholder involvement** - Identifying and engaging stakeholders (public, private, civil society, academia) - Techniques for effective stakeholder engagement - Co-creation and participatory design techniques	Dominika Wróblewska, GUT & Paulina Duch-Żebrowska, GUT
Film 6	**Case study** - Case studies of successful urban adaptation and mitigation projects	Asa Ode Sang
Film 7	**Heat stress mitigation** - Urban Heat Island (UHI) effect - causes, consequences, and mitigation - Urban biodiversity and NBS: an integral design approach - Cooling with trees and vegetation - Urban forests, parks, gardens, playgrounds, streets, avenues, corridors)	Marzena Suchocka, SGGW
Film 8	**Stormwater management - case studies** - AWARD (https://www.awardproject.eu/): Sponge city in Metropolitan city of Milan - CARDIMED (https://www.cardimed-project.eu/): DEMO4 in Catania, Sicily	Fabio Masi, IRIDRA
Film 9	**NBS towards adaptation and mitigation for cities** - The role of NBS in climate change adaptation and mitigation – inspirations and case studies	Magdalena Gajewska, GUT
Film 10 & Film 11	**River basins and embankment management** - Extreme events and their consequences in urban areas - How to prevent the phenomenon of urban stream syndrome - causes, prevention measures	Wojciech Szpakowski, Gdansk Water Company

4. Additional literature

A curated literature portfolio accompanies the videos, providing deeper scientific context for NbS, climate adaptation, river management, and urban planning.

The list includes systematic reviews, technical handbooks (e.g., IUCN Global Standard), case studies from Horizon 2020 projects (NICE), and foundational NbS research works.

(Full list included in Toolbox)

5. Link with Activity A1.4 and WP2

The Toolbox builds directly on the two Training of Trainers workshops:

Workshop 1: Climate change, NbS fundamentals, context analysis, stakeholder engagement.

Workshop 2: Heat stress mitigation, stormwater management, river basin NbS, biodiversity, and monitoring methods.

This ensures methodological continuity from WP1 (LL Guidelines & training) to WP2 (Living Lab implementation).

The Toolbox acts as a "living" reference for:

- facilitators conducting local co-design sessions,
- municipal teams preparing pilot concepts,
- partners reviewing NbS solutions for feasibility,
- harmonisation of methodologies across countries.

6. Accessibility and format

Videos are uploaded to the CONE YouTube channel (https://www.youtube.com/@coneproject/videos).

Each Toolbox element is also uploaded to the project website under "Outputs – Toolbox" (https://www.interreg-central.eu/projects/cone/?tab=outputs).

Presentations and the literature package are provided as downloadable files.

Toolbox content will be updated iteratively as WP2 progresses.

7. Impact and added value

The Toolbox serves as a core knowledge resource supporting:

- harmonised understanding of NbS across the partnership,
- improved design quality of pilot actions,
- increased competence of Living Lab facilitators,
- evidence-based decision-making in municipalities,
- long-term capacity building beyond the project duration.

It also strengthens cross-border cooperation by providing partners with shared terminology, assessment methods, and design principles.

8. Conclusion

The CONE Toolbox consolidates scientific, methodological, and practical knowledge essential for implementing NbS within the project's Living Labs. By combining videos, presentations, and literature, the Toolbox ensures accessible learning and supports partners in each stage of pilot design and implementation.

As the project progresses, the Toolbox will be expanded with additional deliverables (Protocol, Manual, Guidelines), enhancing its role as a long-term knowledge platform.