The UPSURGE Project Final Conference

Guiding Cities to Deliver Regenerative Urban Transformation

SESSION 4 - SCALING NATURE-BASED INNOVATION ACROSS EUROPE

Navigating Sustainability and Scalability: Insights from UPSURGE Comparative Assessments and Simulations

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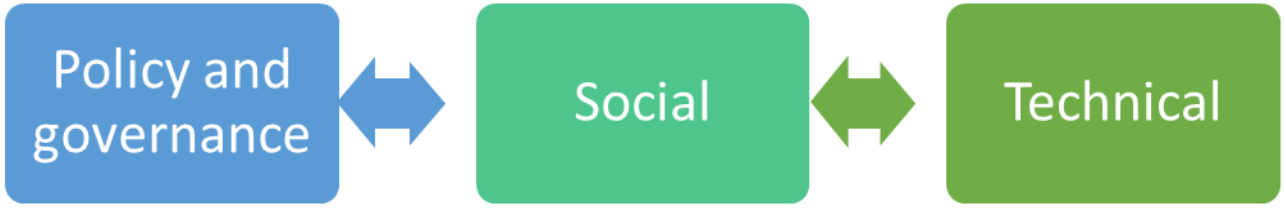
Katowice, Poland, Feb 10th 2026

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 101003818

Key insights transferable across city experiences

Mitigation strategies to overcome barriers to co-design, implementation and deployment



- National strategies and projects provides a context and rationale for NbS interventions.
- Policy alignment requires time to develop a fully collaborative process involving key players
- The importance of engagement – the single homogeneous community does not exist
- Communication, education and awareness activities are essential through innovative approaches demonstrated in UPSURGE cities through Place Labs approach.
- The value of projects such as the UPSURGE project and demonstration sites to validate the benefit of NbS interventions.
- The importance of communicating success stories to illustrate the impact of NbS approaches.

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SUSTAINABILITY AND SCALABILITY

Key messages:

- UPSURGE NbS Demonstration Cities and Partner city provide Case study evidence of NbS interventions for future policy and climate resilience strategies.
- The impacts of NbS implementation have been amplified through the Place Labs.
- The UPSURGE sites offer opportunities to inspire, create change and scale up ideas, concepts and approaches to deliver more greening across cities.

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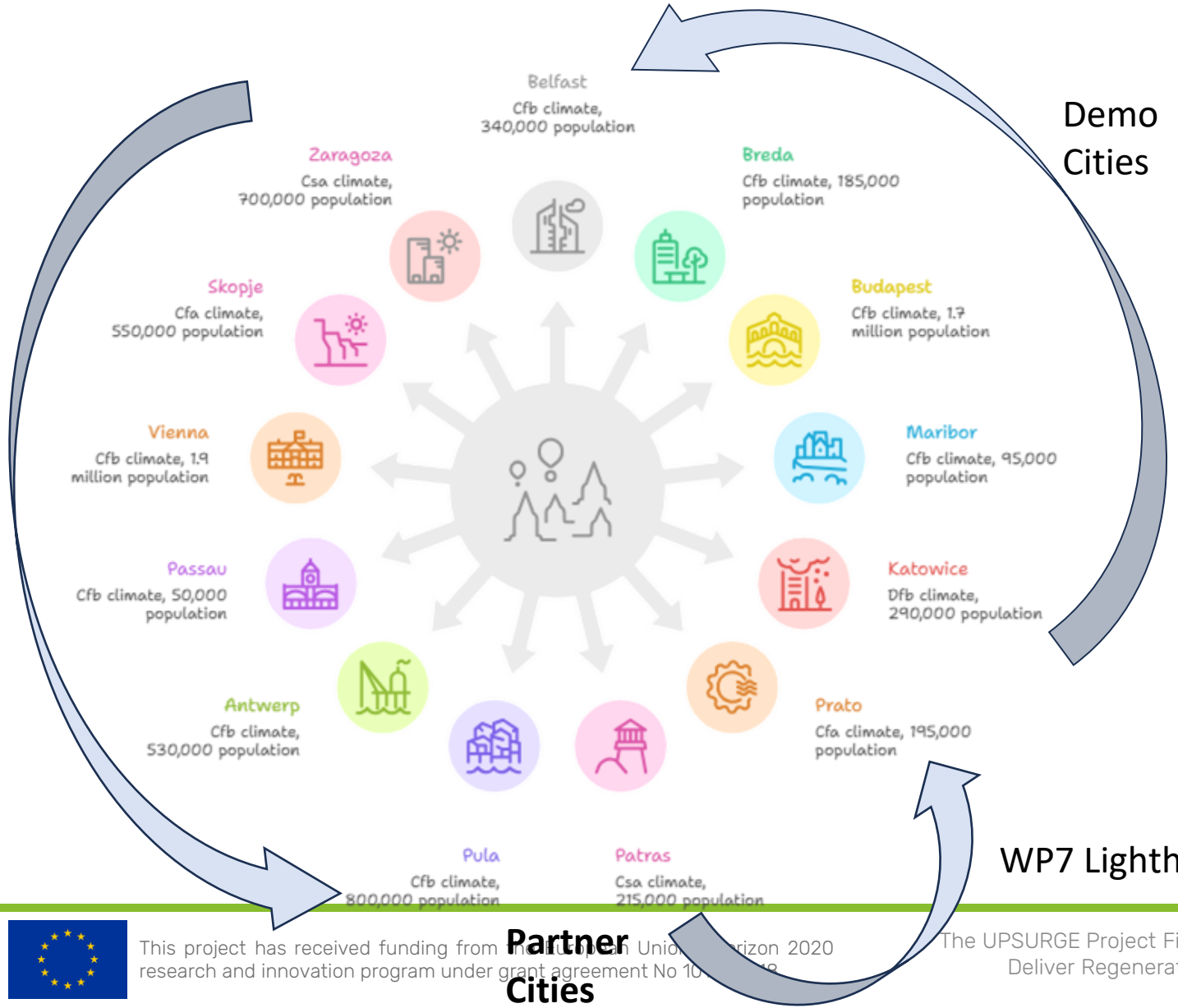
Scalability of NbS – 5 demo and 7 partner cities



- Scalability of NbS deployed in demo cities across partner cities
- Through Micro-climatic simulations of NbS for before and after NbS Implementation
- Meteorology to Thermal Comfort for tailored effectiveness of NbS on vulnerable groups

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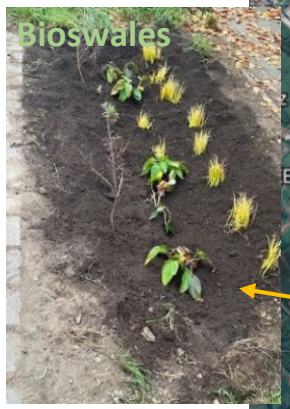
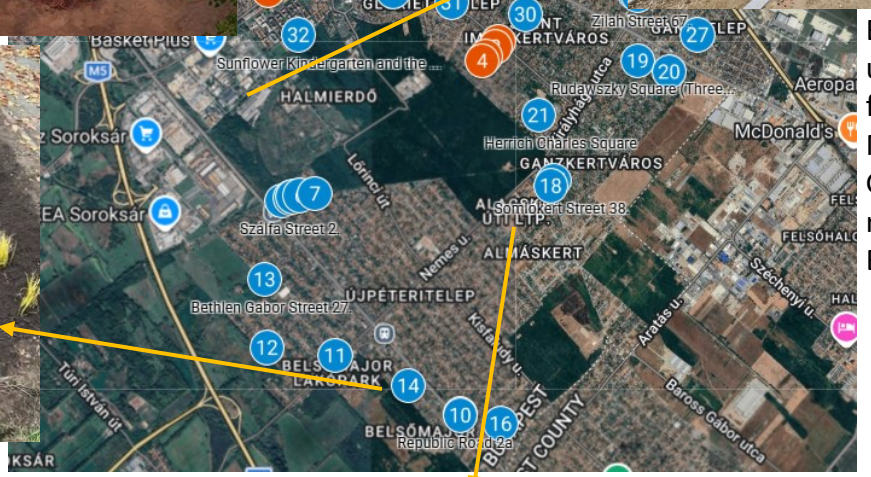
Inter-City and Cross-city Scalability of NbS

Inter-City Scalability
Belfast and Satellite Sites

Cross-City Scalability
Budapest and NbS from other demo cities





Biophilic urban design from Maribor to Gyáli-creek revival in BP18

Urban Jungle in Breda to Alacska Housing Estate in BP18

Katowice Green Bus stops to Bp18

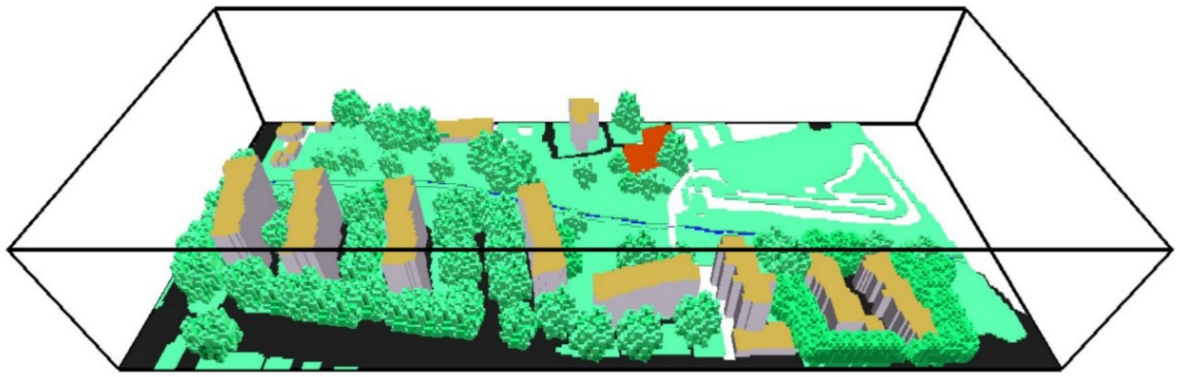
Case Study – Maribor Green Corridor NbS Design

Original Site

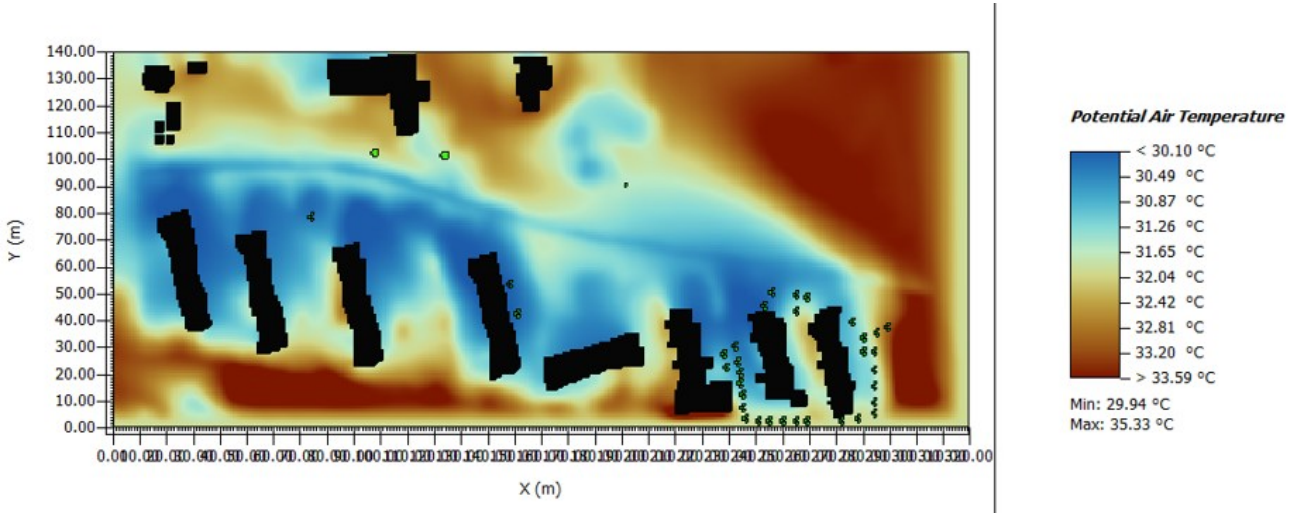
NbS Implementation

3D model of Base and NbS Scenario

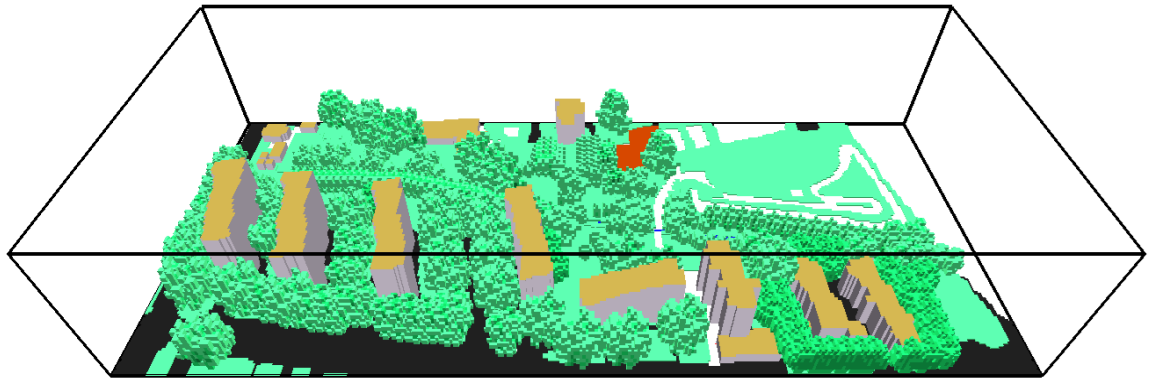
Base Scenario 3D model



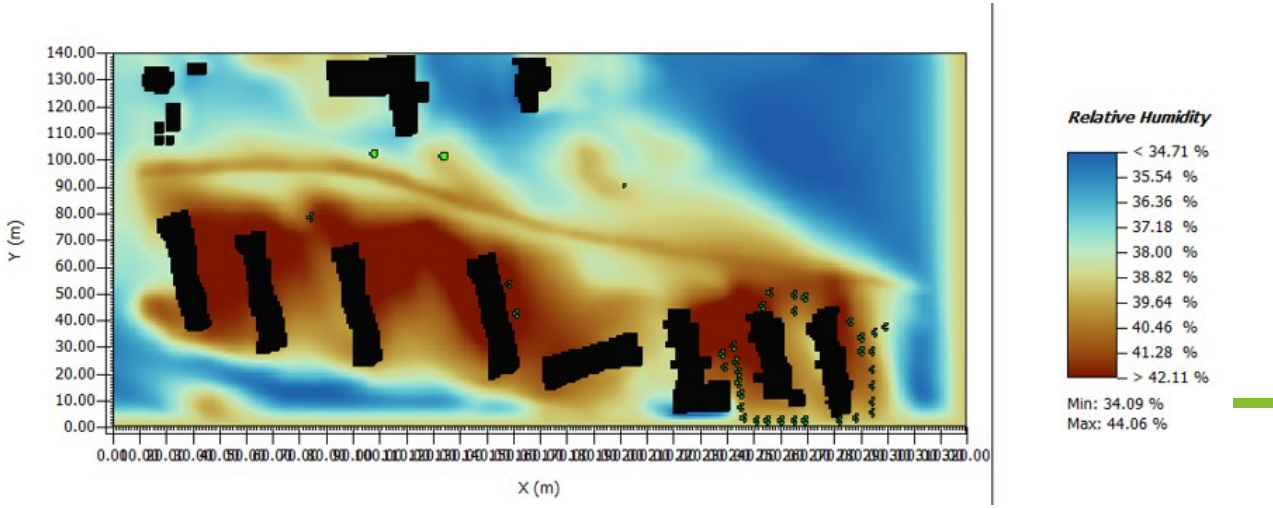
Base Scenario –Potential Temperature (10.08.2023)



NbS Scenario 3D model



Base Scenario –Relative Humidity(10.08.2023)



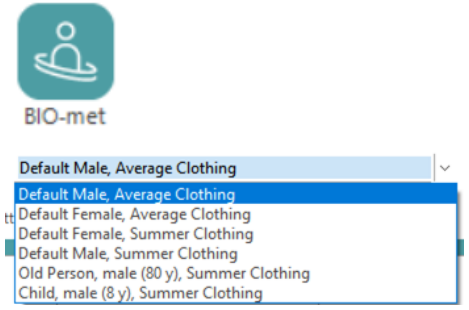
Effectiveness of NbS – Social and Environmental

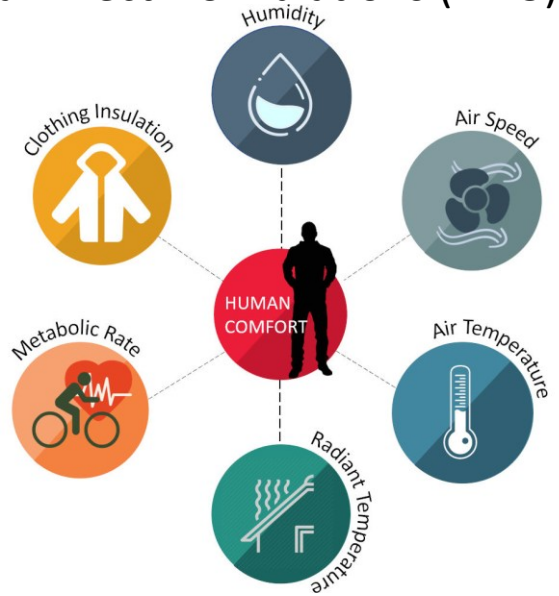
Social Engagement – Place labs (WP8)

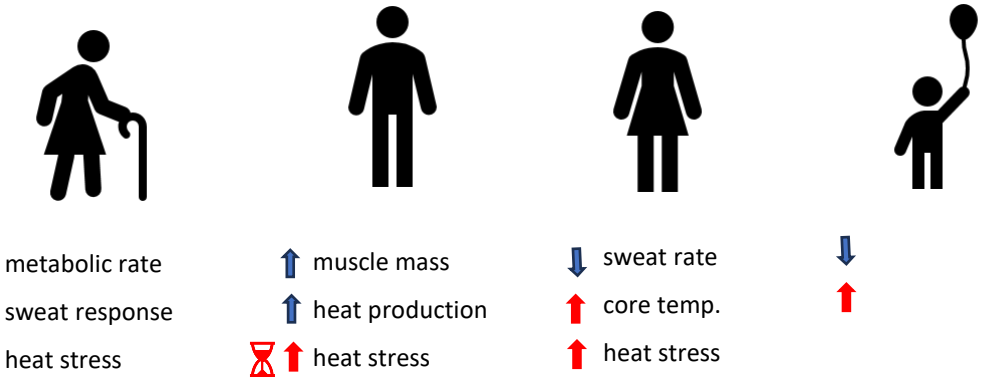



Figure: Place Lab Activities in Maribor a) Planter Design Hackathon b) Green Observatory Workshop c) Seniors at the 100 Moves event and d) Children learning during Chestnut Picnic

Environmental Effect – Simulations (WP5)







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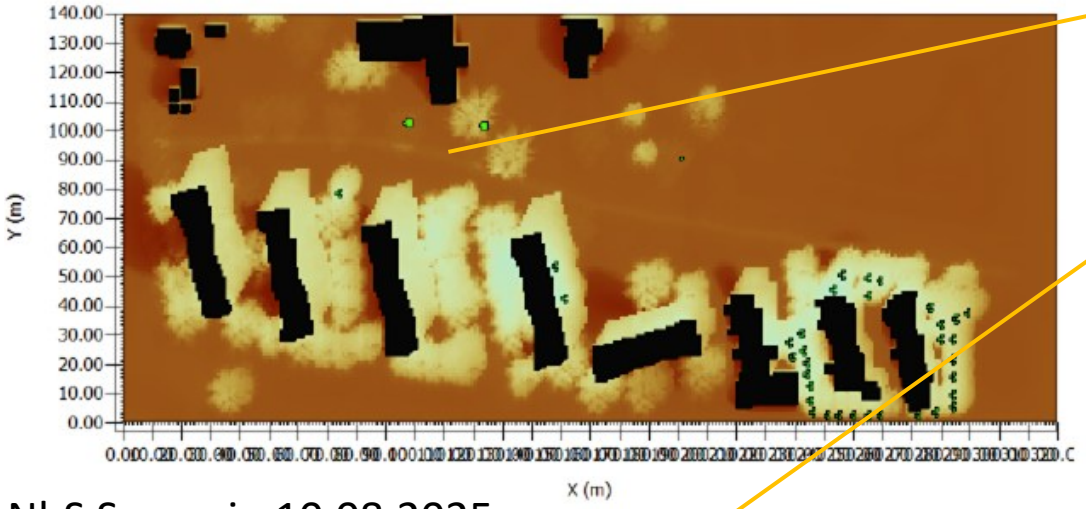
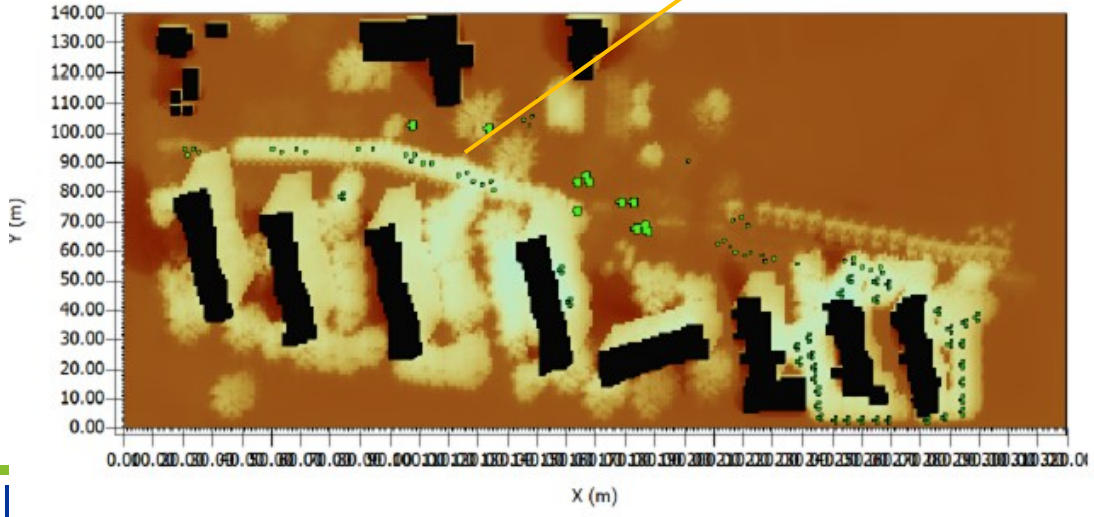
Thermal Comfort for a Child through PET

Base Scenario 10.08.2023



NbS Scenario 10.08.2025



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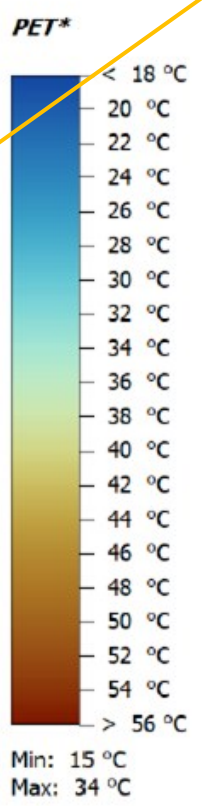

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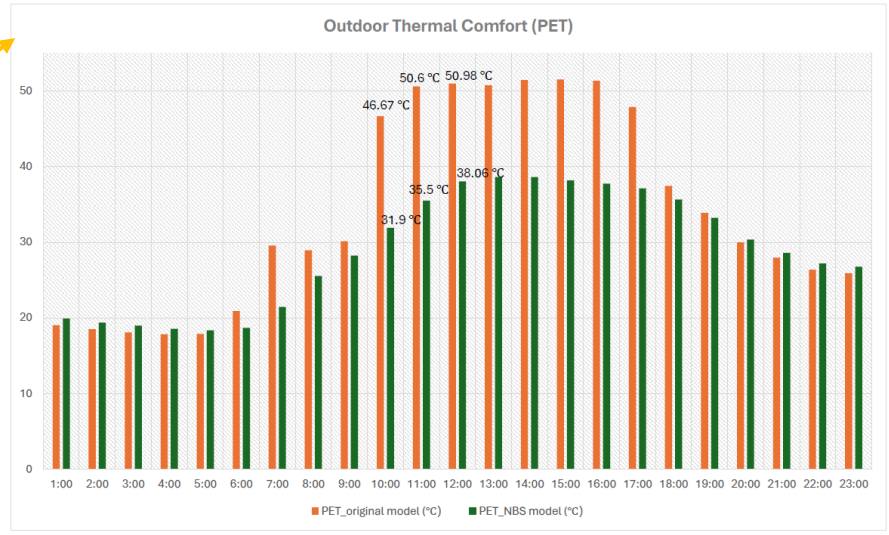
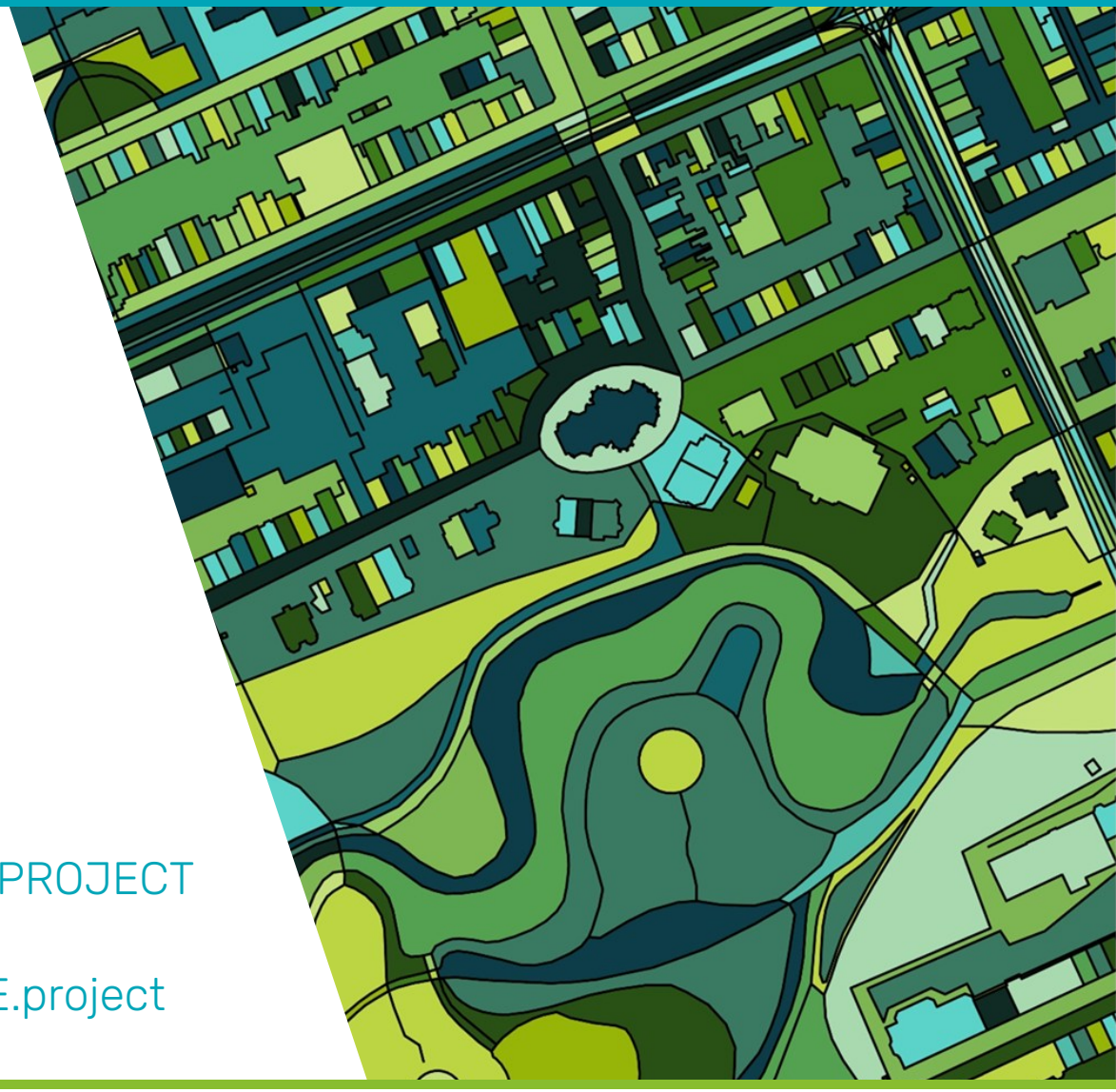


PET	Thermal sensation	Physiological stress
<4°C	Too cold	High cold stress
<12°C	Cold	Moderate cold stress
<18°C	Little cold	Little cold stress
18°C-26°C	Comfortable	No thermal stress
>26°C	Little heat	Little hot stress
>31°C	Hot	Moderate hot stress
>43°C	Too hot	Too hot stress

PET: Physiological Equivalent Temperature

City-centered approach to catalyze nature-based solutions through the EU Regenerative Urban Lighthouse for pollution alleviation and regenerative development

UPSURGE



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