

# Meeting on the map:

## Innovative platform for stakeholder learning, dialogue and engagement with nature-based solutions (NbS)

### Policy Recommendations

#### Schools

- Offer walkable floor maps to schools for free and involve teachers in the designing process.
- Invite schools to participate in local dialogues and collaboration on NbS
- Help schools overcome obstacles to using walkable floor maps for learning projects and for engaging in local dialogue.

#### Governance

- Offer IWF to local government departments for display and use to foster dialogue with public and private actors on NbS policy innovation and implementation.
- Invite politicians, policy makers across policy sectors and stakeholders to jointly use IWF to enhance and deepen dialogue on urban challenges, local areas and communities, explore multiple benefits of NbS opportunities and how to overcome current challenges and constraints.
- Offer IWF as platform for innovative policy design and policy learning.

*This brief provides information about the outcome of cross-disciplinary research and development work on the use of walkable floor maps as an interactive educational platform.*

#### Why NbS?

NbS are actions to protect, sustainably manage and restore natural and modified ecosystems in ways that effectively and adaptively address societal challenges. By providing both human well-being and biodiversity benefits, and offering multiple other services such as climate adaptation, they are crucial to resilient and sustainable cities.

#### Why dialogue?

Establishing NbS calls for a high degree of participation, engagement and understanding from a range of public and private actors. Dialogue is an absolute prerequisite because problems cannot be solved unilaterally.

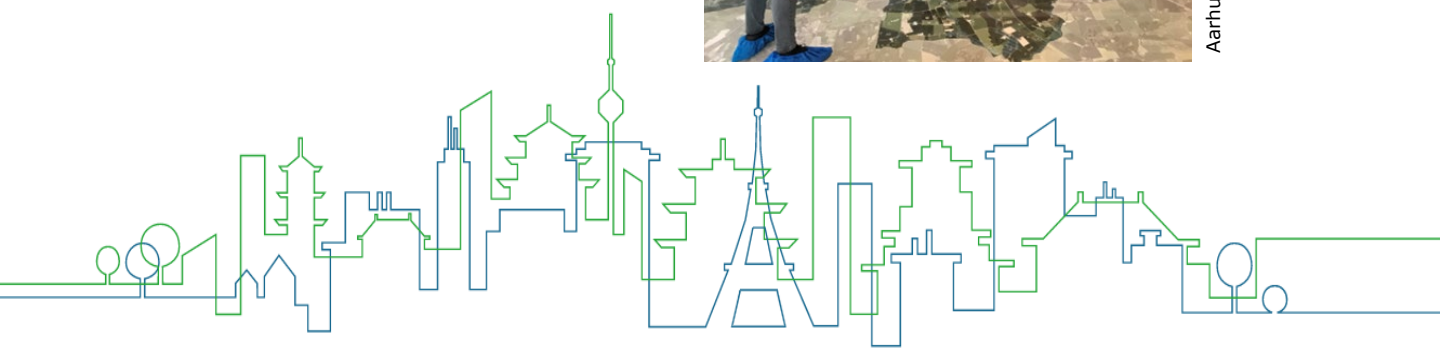
#### Why maps?

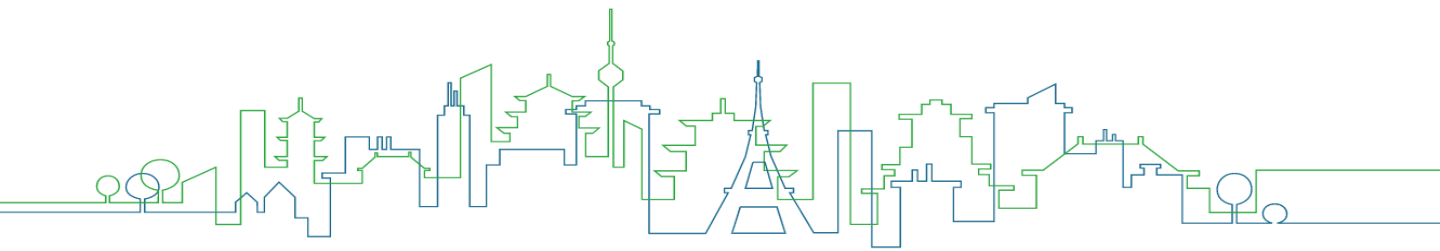
Interactive Walkable Floor Maps (IWFs) provide a platform for learning and a meeting point for dialogue. They consist of a high-resolution image (red, green and blue; RGB) and additional material. For floor installation, they are printed on a large (up to 5 x 8 m) sheet of resistant material that tolerates being walked on. Unlike other tools, IWFs enable spatial identification and collaborative dialogue through tactile and kinaesthetic interaction with the map.

The map's sheer size supports understanding of large-scale contexts while the refined resolution captures important details.



Aarhus policy workshop, © A.B. Pedersen





Children interacting with the IWF, © J. Læssøe

## Educational platform for children's engagement with NbS

### Need

The aim of NbS is to create sustainable living conditions for future generations. However, these future generations are often merely informed about plans drawn up by others to change their local environment. It is imperative that we find ways to enable young people to participate in processes of sustainable change and to engage in developing quality NbS, ways that also promote learning, develop democratic action competence, offer hope for the future, and enhance local identity.

### Research

REGREEN collaborated with teachers in three European cities to find ways of applying interactive walkable floormaps (IWFs) to foster learning about local NbS through practical exercises. Collaboration showed that IWFs afford a wide range of opportunities for action-oriented learning. They facilitate exploration of local climate-related problems and encourage children to reflect on and develop ideas for local NbS. Adding their findings to the floormaps using QR-codes, post-its, or by drawing on overlaid transparencies, allows children to engage in dialogue and co-learning with local experts and authorities. IWFs also provide a platform for urban planners to integrate the perspectives of young people on sustainable urban futures.

## Findings

We explored the educational potential of IWFs and barriers to their use.

**Barriers:** Teachers have limited time for preparation in general, which leaves little time for incorporating new pedagogical approaches. School organisation and structure, rigid national curricula, children's sociopsychological problems, and poor in-service training opportunities are among the many impeding factors.

**Potentials and examples:** Teachers experimented with walkable floor maps by adding floor map activities to current lesson plans in compliance with the curriculum. Using the maps as point of departure, students explored a variety of environmental issues. They biked around the city, registered dangerous sections on the IWF and suggested changes. Using the map for city planning, they compiled a list of improvements and best placements for new schools, parks, green areas, and lakes etc. Others used the map to explore their local area, its nature, daily life and history, transferring their new knowledge to the IWF with QR-codes and by drawing on large overlaid transparencies. These thematic IWFs were then presented to the town mayor at a public school event.



Children and their parents on the IWF, © J. Læssøe

### Additional material

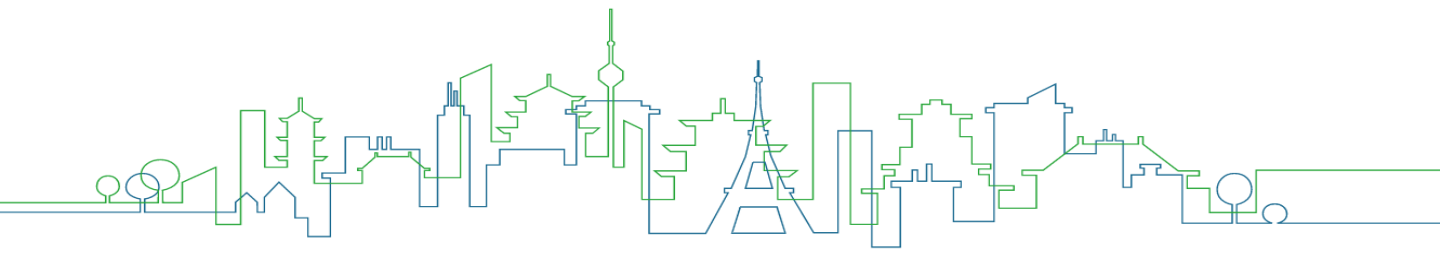
Elze, S., Banzhaf, E. (2023). How to Design Interactive Walkable Floor Maps - IWF - (Version 1).  
<https://doi.org/10.5281/zenodo.10454324>

Læssøe, J., Anderson, S., Jimenez, M. S., Elze, S. (2024). Children and youth participation and learning in science and local governance related to nature-based solutions.  
<https://doi.org/10.5281/zenodo.10722383>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no.821016 This document reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.





## Learning and engagement – promoting participation and democratic decision making

Responding to our pressing climate and environmental challenges requires innovation, joined-up thinking and working across sectors rather than policy siloing. NbS are well-suited for cross-sectoral and innovative implementation. If we are to foster policy innovation and change, then engagement and dialogue with policy makers and stakeholders is needed.



Paris Region policy workshop, Aulnay-sous-Bois, 2022, © C. Petersen

As part of REGREEN we used our innovative IWFs to facilitate engagement, dialogue and stimulate learning with key policy makers (e.g. local government), children and stakeholders in three European Urban Living Lab case studies (one policy workshop in each).

We found IWF to be a useful and promising tool to promote dialogue, social interaction and stimulate learning among policy makers across policy sectors – e.g. environmental, planning, education and social work – on and about the maps. Specifically, they offer

- Opportunities for dialogue and asking questions.
- Visual kinaesthetic learning – moving around the map.
- Pinpointing opportunities, challenges and constraints on the IWF.
- Revealing cross-cutting multi-functions of specific NbS interventions - and potential conflicts on urban nature
- Greater spatial contextualisation of discussions
- Enables highlighting of connectivity aspects, barriers etc. (opportunities/challenges).

## Conclusions

### Use of IWF with policy makers and stakeholders offers

- Contextualised dialogue and policy learning amongst policy makers and stakeholders in the local area
- Opportunities to explore NbS potential and constraints, question current approaches and to 'think outside the box'
- Potential pathways to policy change

### Additional material

Banzhaf, E., Anderson, S., Læssøe, J., Jensen, A. & Iversen, S. (2021). Walkable floor maps, [REGREEN 3rd Newsletter, Dec. 2021](#).

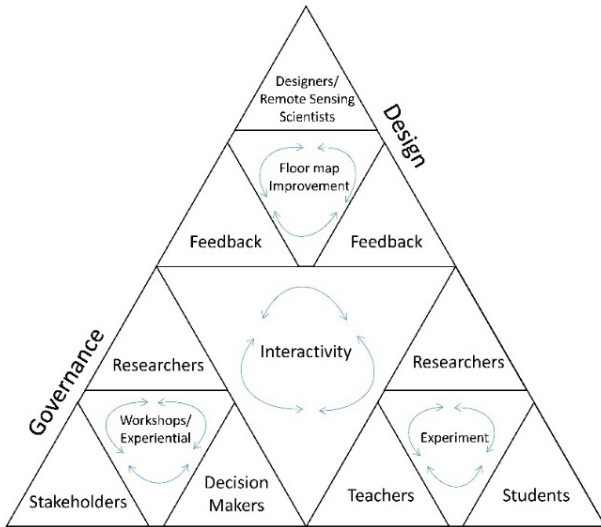
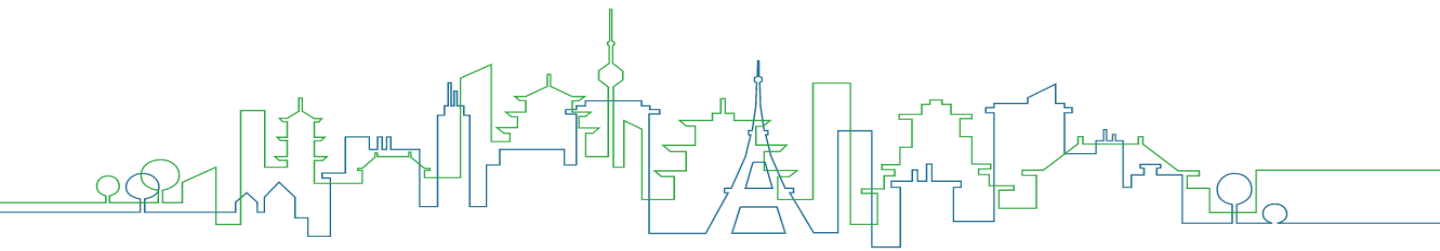


Aarhus policy workshop, © A.B. Pedersen



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Interactive, interdisciplinary workflow,  
S. Elze

## Do you know that...

... in the REGREEN project, the IWFs were part of the development and testing of tools to understand the benefits and values from NbS and their services. They formed an overarching tool encompassing mapping, governance and educational learning. Their resounding success in REGREEN is due to strong cooperation with the urban living labs in all three countries.



IWF in the aula of Eugen-Kumicic school © J. Læssøe

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## You want to know more?

REGREEN webpage  
[www.regreen-project.eu](http://www.regreen-project.eu)

REGREEN repository zenodo  
<https://zenodo.org/communities/regreen>



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