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North-West Europe

Cool Neighbourhoods

EXCEPT
INTEGRATED SUSTAINABILITY

COOL NEIGHBOURHOODS

WORK PACKAGE 1

ACTIVITY 1.4 | DELIVERABLE 1.4.2
EMPOWERMENT PROCESS GUIDEBOOK

ACTIVITY 1.4 | DELIVERABLE 1.4.3
METHODOLOGY EMPOWERMENT SCHEMES

VERSION 2.0

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COOL NEIGHBOURHOODS

PART I | EMPOWERMENT PROCESS GUIDEBOOK

March, 2025



CHAPTER 1: INTRODUCTION

1.1. Reading guide

The purpose of this document is to support municipalities in empowering communities to take part in urban heat stress mitigation. This can be combined with 'greening' and 'climate adaptation' of areas. It provides practical tools and strategies to guide participatory processes, ensuring inclusive decision-making and long-term engagement.

The guidebook is structured into two parts:

Part I introduces the Empowerment process, covering stakeholder analysis and engagement, education and training, participatory approach, and empowerment tools. It also includes best practices and case studies to illustrate real-world applications.

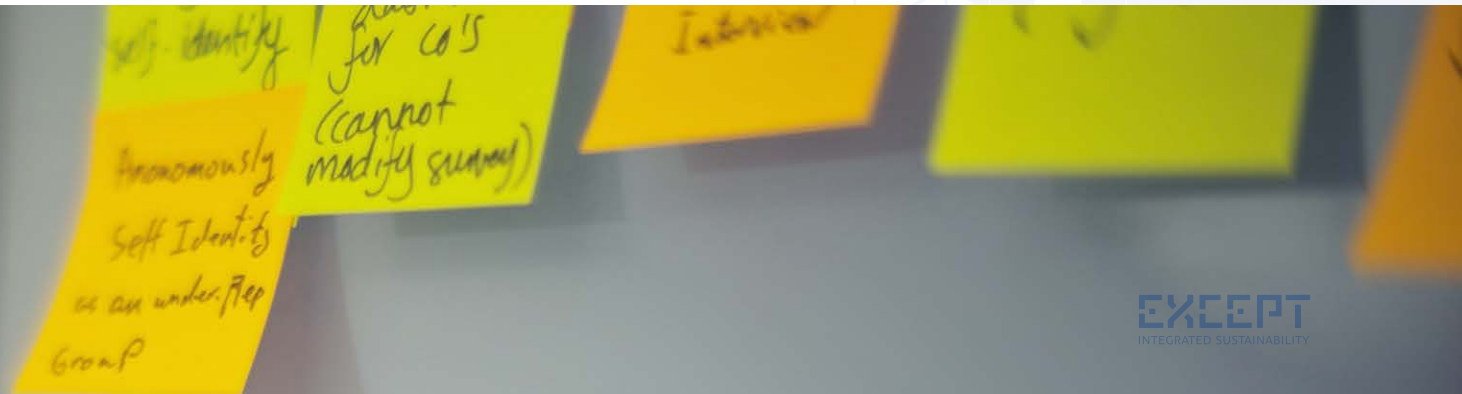
Part II presents tailored Empowerment Schemes for three neighbourhood types - inner-city, deprived areas, and green hubs - exploring their specific challenges, conditions, and offering solutions to those.

The empowerment process typically takes 6–12 months, with responsibilities shared between local governments, community leaders, and project partners. By following this guidebook, municipalities can ensure that urban cooling strategies are well-adapted, community-driven, and impactful.

1.2. Who is this book for?

This guidebook is designed as a resource for municipality workers, city decision-makers, and local government officials who engage directly with the residents. It provides practical guidance for those responsible for planning and improving public spaces, such as streets, squares, parks, and neighbourhoods, as well as for those involved in new urban developments.

The guidebook supports decision-makers in building capacity for participatory processes, ensuring strategies are developed with and for local residents. Rather than prescribing one-size-fits-all solutions, it provides guidance on co-creation methods, stakeholder engagement, and long-term empowerment, helping authorities build trust, collaboration, and community ownership.



CHAPTER 1: INTRODUCTION

1.3. The Cool Neighbourhoods Project

The **Cool Neighbourhoods** project is a collaboration of municipalities, research institutions, and private partners across the North-West Europe region. It addresses the growing challenge of urban heat stress by implementing practical, community-driven cooling solutions at the neighbourhood level. Rising temperatures and heat islands pose growing risks, especially in densely populated areas. To keep cities livable, local cooling solutions are essential.

To tackle these challenges, the project focuses on three neighbourhood typologies - **inner city, green-hub, and economically disadvantaged** - in **nine pilot areas** across the Netherlands, Belgium, France, and Luxembourg. Through a participatory co-creation process, these pilot sites will implement urban greening interventions, covering over 30,000 m² of public space, while improving health, recreation, social cohesion, and biodiversity. The success of these projects depends on broad participation, ensuring that changes reflect the needs and ideas of the people who use these spaces every day.

The **Empowerment Guidebook** plays a key role in this process by equipping municipality workers, city decision-makers, and local government officials with the tools to involve communities in shaping these cooling solutions. It offers simple, practical tools for engaging residents, running participatory events, and ensuring long-term support. With clear steps on how to develop co-creation meetings, communicate with stakeholders, and encourage local action, the guidebook ensures that cooling strategies are not just planned for people, but with them. By promoting collaboration, transparency, and grassroots involvement, the guidebook supports project's goal of building resilient, engaged communities that actively contribute to shaping and sustaining their neighbourhoods.

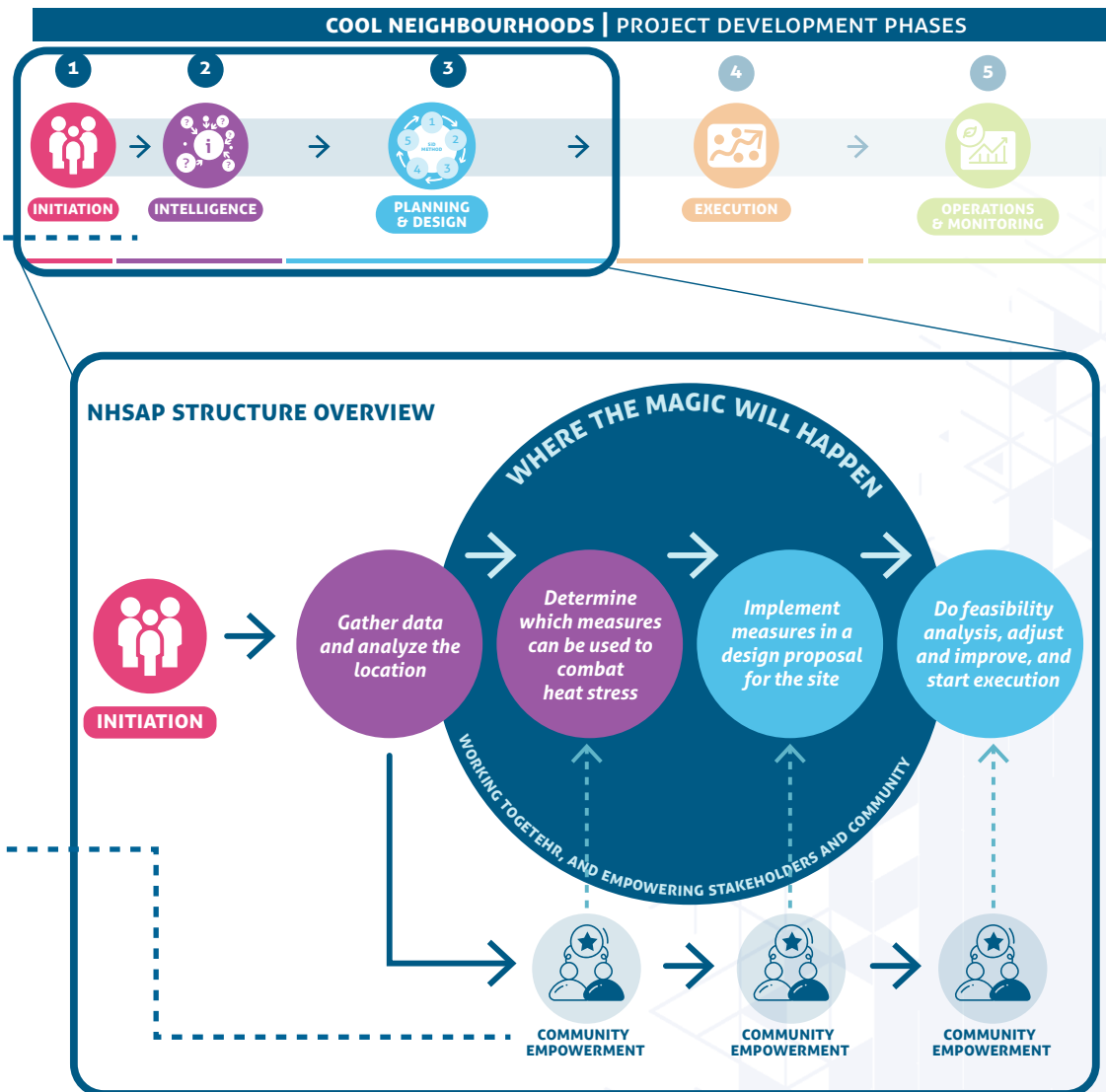
At the heart of the project is the **Neighbourhood Heat-Stress Action Plan (NHSAP)** - a step-by-step guide for each pilot area to choose, design, and apply heat-reducing measures. Using local data, cost-benefit analysis, and direct community input, NHSAP helps cities make effective and lasting decisions. This approach ensures that cooling solutions go beyond short-term fixes, creating long-term benefits for both people and the environment.



CHAPTER 1: INTRODUCTION

The guidebook supports all phases but primarily focuses on the **Initiation**, **Intelligence** and **Planning & design** by helping communities and stakeholders get involved early in the process.

Community empowerment is central at every stage, ensuring stakeholders are involved and active participants throughout. The guidebook complements this process by simplifying stakeholder engagement. It helps communities understand the steps, build trust, and work together. Practical tools, case studies, and examples make the process easy to follow and implement. This targeted focus ensures the foundation for long-term success and community ownership of solutions.



CHAPTER 1: INTRODUCTION

1.4 Overview

The **Empowerment guidebook Part I** is divided into six chapters, that correspond to some degree to the chronological phases of a Cool Neighbourhoods process.

- › **Chapter 1: Introduction:** Explains the guidebook's purpose and links it to the Cool Neighbourhoods project goals.
- › **Chapter 2: Stakeholder Analysis and Engagement:** Covers how to identify stakeholders, engage them effectively, and communicate inclusively.
- › **Chapter 3: Education and Training:** Focuses on the importance of awareness-building on heat stress and empowering local stakeholders through capacity building.
- › **Chapter 4: Participatory approach:** Provides a framework for co-creation with practical steps and solutions for common challenges.
- › **Chapter 5: Empowerment Tools:** Includes decision-making, participatory, training, communication, and evaluation tools for sustainable action.
- › **Chapter 6: Best Practices and Case Studies:** Features success stories and examples from project partners and global initiatives.

Part II, **Methodology Empowerment Schemes**, focuses on tailored schemes for three neighbourhood types:

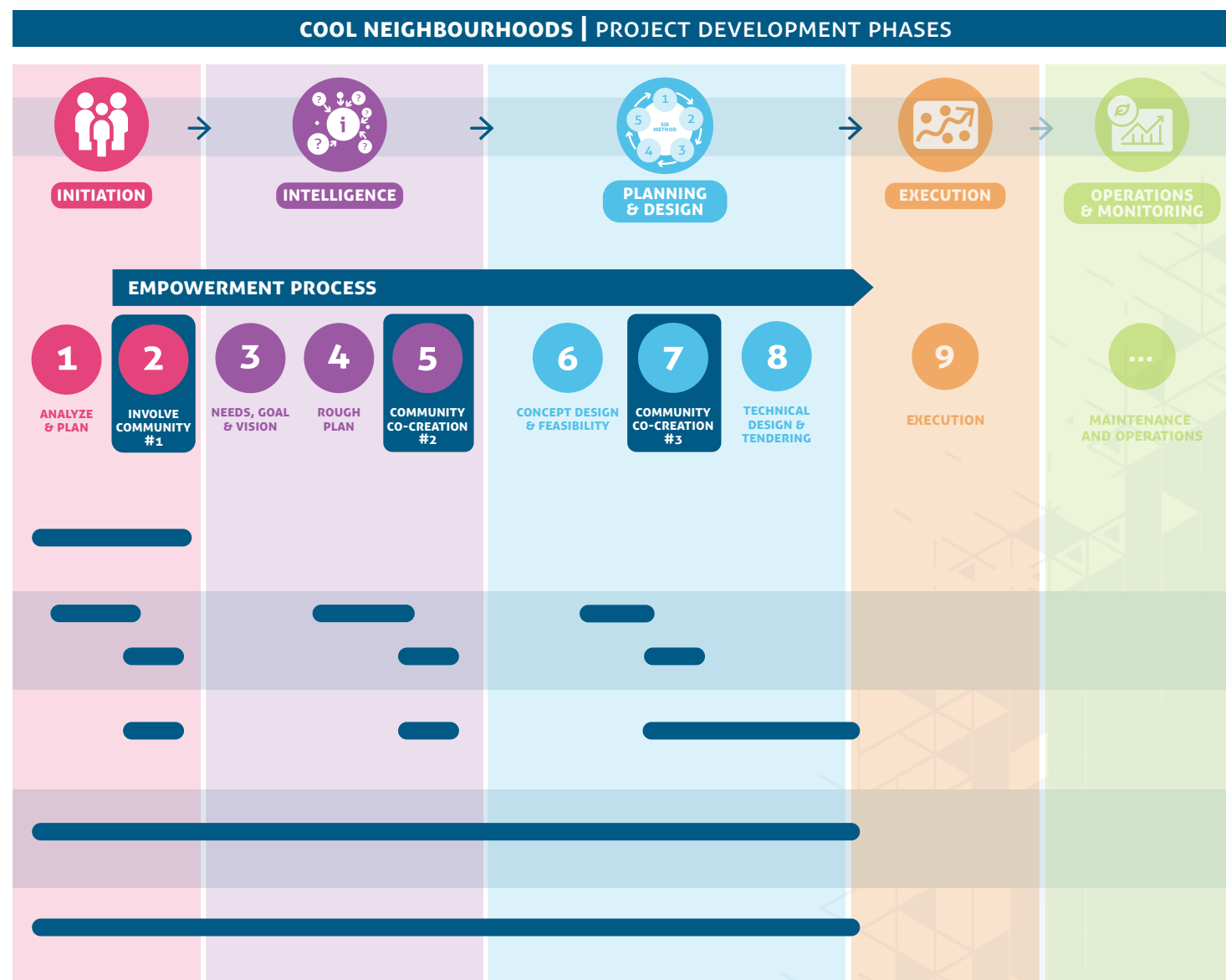
- › **Typology I: Inner-City Areas**
- › **Typology II: Deprived Areas**
- › **Typology III: Green Hubs for the Area**

Appendices: The appendices offer templates and additional resources to support municipalities and other stakeholders in their efforts.

Each scheme addresses specific challenges and provides solutions for local implementation. Together, Parts I and II create a structured approach to foster co-creation, bridge gaps in representation, and ensure long-term engagement. The empowerment process typically takes 6–12 months, with responsibilities shared between local governments, community leaders, and project partners. This approach ensures meaningful and lasting results in addressing urban heat stress.



CHAPTER 1: INTRODUCTION

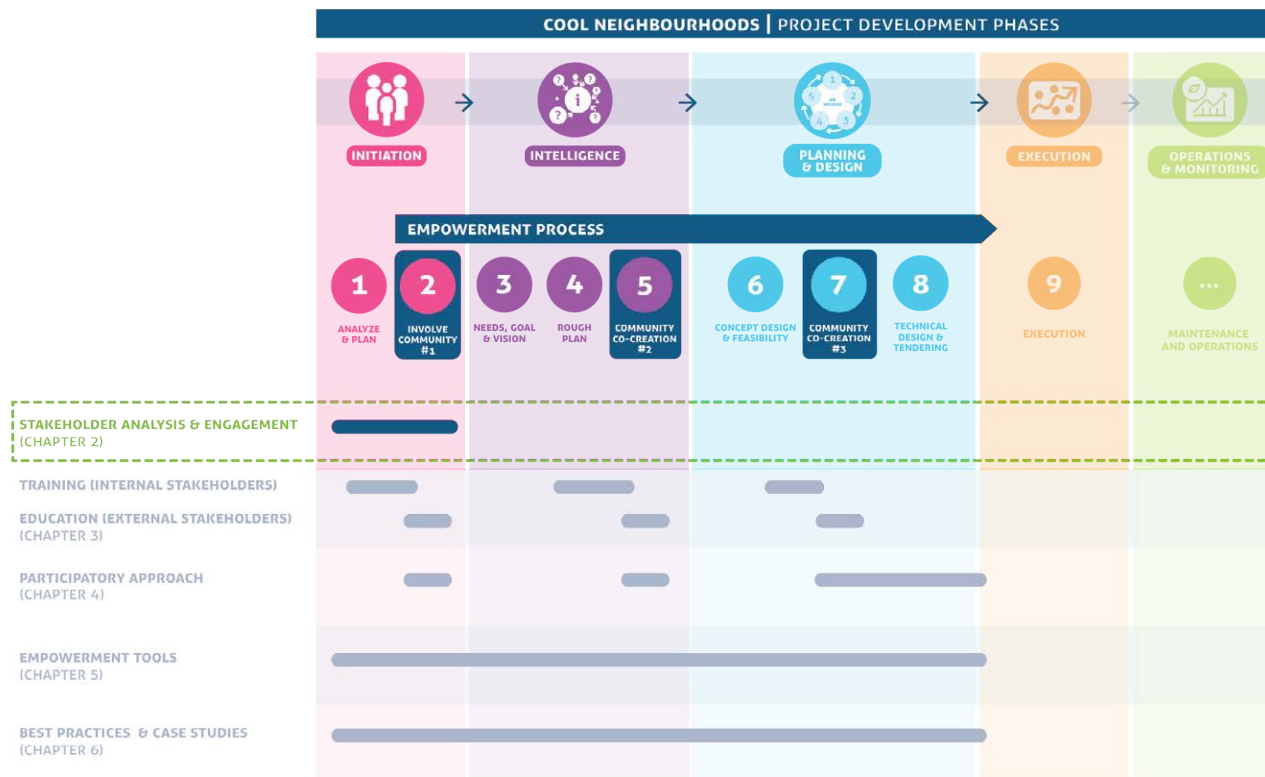


CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

Cocreation only works when the right people are involved in the process. This chapter explains how to identify, engage, and communicate with stakeholders effectively. It covers how to define the purpose and scope of involvement, map stakeholders, and choose the right engagement strategies to involve communities.

Practical tips for clear and inclusive communication are described here, along with methods to adapt messages and gather feedback throughout the process.

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CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

2.1 Stakeholder Identification

2.1.1. PURPOSE AND SCOPE OF STAKEHOLDER INVOLVEMENT

The **purpose** of stakeholder involvement is to ensure that all relevant voices are heard, enabling the creation of effective, co-designed solutions that reflect the needs and priorities of those directly impacted by the project. Involving stakeholders helps ensure the interventions are practical, sustainable, and inclusive.

To define **the scope of stakeholder involvement**, first identify all relevant stakeholders, such as colleagues from municipality from various departments, local residents, businesses, experts, etc. **(A)**. Determine **how** each group will be engaged based on their role and potential impact on the project. Some stakeholders may contribute actively, while others may simply provide feedback or stay informed.

(B) Assign clear roles and responsibilities to each group to ensure a structured and meaningful involvement. Regular follow-ups help keep stakeholders engaged and ensure their input is valued.

Ensure that the scope is flexible enough to adapt to the project's needs, but clear enough to keep everyone on the same page. Keep the process structured, so stakeholders know when and how their input will be used.

A. STAKEHOLDER IDENTIFICATION:

› Key Internal Stakeholders:

Focus on those who work within the partner institutions (*e.g., urban planning, environmental department, public works, social services, parks and recreation, finance and budgeting, decision makers, and/or other relevant stakeholders within the given institution*). These stakeholders will have direct influence over project decisions, resources, and implementation.

› Key External Stakeholders:

Include communities, affected parties, and external groups in the pilot locations (*e.g., residents, local businesses, NGOs and community groups, property owners and developers, schools and educational institutions, and/or other relevant stakeholders within the given pilot*). Their involvement is crucial for gathering input, fostering engagement, and ensuring the project's success on the ground.

B. ROLES AND RESPONSIBILITIES:

For each key stakeholder within both internal and external categories, assign roles to each department or individual based on their relevance to the project. For instance, some examples:

- › **Urban Planning:** Responsible for planning and infrastructure
- › **Environmental Department:** Responsible for sustainability and green infrastructure.
- › **Public Works:** Responsible for overseeing the physical implementation of cooling interventions



CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

2.1.2. MAPPING OF STAKEHOLDERS

Once the scope is defined, the next step is **stakeholder mapping**, where you assess the influence and interest of each group to tailor your engagement strategy effectively.

To organize this, create a matrix that maps **influence vs. interest** for each stakeholder group. This helps prioritize who to engage more closely (e.g., community leaders) versus who to inform periodically (e.g., peripheral groups).

Example of how to represent the stakeholder analysis:

(Please find this template in the Appendix 2)

Stakeholder Category	Roles & Responsibilities	Level of influence	Level of Interest
Internal Stakeholders			
Urban Planning Department	Responsible for planning and infrastructure	High	High
...			
External Stakeholders			
Local Businesses	SMEs that might benefit from or contribute to urban cooling efforts (e.g., by adding greenery, offering shaded areas, etc.).	Medium	Medium
...			

CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

2.2 Engagement Strategies

2.2.1 STAKEHOLDER ENGAGEMENT COMPASS

Use the list of the identified stakeholders to map:

- › **When** in the process these stakeholders **will be involved**
- › **What engagement strategy** they will be assigned for each of the phases (*ex. responsible - actively involve in planning and decision-making; collaborator - collaborative planning and advocacy; direct engagement through workshops; regular updates, etc.*).

(Please find this template in the Appendix 2)

2.2.2. ENGAGE AND CONSULT STAKEHOLDERS

- › **For Internal Stakeholders:** Hold structured meetings and workshops to understand each department's capacities, needs, and potential contributions to the project. Ensure all relevant teams understand their roles and the project's goals.
- › **For External Stakeholders:** Organize community meetings, focus groups, or surveys to gather input on urban heat stress issues, desired interventions, and feedback on proposed solutions. Ensure a participatory approach to create ownership.

Stakeholders	Cool Neighbourhood Project Phases												
	Project Identification & Scoping	Stakeholder Involvement	Study of the Current State	Concept	Design	Technical Design	Budget & Finance	Tendering	Construction	Delivery	Maintenance	Reporting & Monitoring	Periodic Upgrading
Municipality's Urban Planning	Responsible	Responsible	Responsible	Responsible Actively involved in planning and decision-making	Responsible Actively involved in planning and decision-making	Responsible Actively involved in planning and decision-making	Responsible	Responsible	Responsible	Responsible	Responsible	Responsible	Responsible
Local Businesses	Collaborator	Collaborator Regular updates, opportunities for participation	Collaborator	Collaborator	Collaborator	Collaborator			Collaborator	Collaborator	Collaborator		Collaborator
....													

CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

2.3 Communication Tools

Identifying audience-specific communication tools is essential, as different stakeholders require tailored approaches.

For **internal stakeholders**, such as municipality teams and project partners, it is important to focus on tools that enhance collaboration, streamline decision-making, and provide regular updates.

In contrast, **external stakeholders**, including residents, community groups, and local businesses, require tools that prioritize outreach, facilitate participation, and encourage feedback to ensure their active involvement in the project and beyond.



2.3.1 COMMUNICATION CHANNELS

Determining effective communication channels ensures all stakeholders are reached and engaged. These channels vary based on audience preferences and accessibility and fall into three main groups: **(a) digital tools, (b) in-person communication, and (c) print media.**

While the tools are split by stakeholder category, most of them can be effectively used for both internal and external stakeholders.

a. Digital Tools

Digital tools allow for broad and efficient communication, particularly for urban populations and younger demographics.

Tool	Internal stakeholders	External stakeholders
Email	<ul style="list-style-type: none"> › Newsletters › Regular email updates 	<ul style="list-style-type: none"> › Newsletters › Regular email updates with more engaged external parties (e.g. community leaders or businesses)
Useful for	Formal communications, providing consistent, accessible, and cost-effective way to convey information, keeping stakeholders informed, engaged, and aligned with project objectives and progress	
Social Media:	Platforms like: <ul style="list-style-type: none"> › LinkedIn › Facebook › Twitter, and › Instagram 	
Useful for	Reaching a wide audience quickly, promoting community events, and sharing updates on the project's progress. Note of caution: Social media allows for open responses and public discussions, which requires active moderation. Be prepared to manage engagement, address misinformation, and handle critical feedback promptly to maintain a constructive dialogue.	
Project Website or Portal	<ul style="list-style-type: none"> › An online platform dedicated to sharing information, updates, and resources about the project 	
Useful for	Centralizing information, providing real-time updates, offering resources, and reports, available for public access. It is advisable to include features like FAQs, blogs, and feedback forms	
Video Conferencing Tools	<ul style="list-style-type: none"> › Zoom › Microsoft Teams › Google Meet 	
Useful for	Virtual meetings where physical meetings are not possible.	Online workshops, in situations where in-person gatherings cannot take place.
Mobile Applications	<ul style="list-style-type: none"> › Various local applications, where relevant 	
Useful for	Real real-time updates, event notifications, and even citizen science contributions (e.g., residents recording local temperatures or heat stress data)	

CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT

b. In-Person Communication

Face-to-face interaction builds trust, fosters engagement, and creates a sense of responsibility and ownership.

Tool	Internal stakeholders	External stakeholders
Workshops and Community Meetings	<ul style="list-style-type: none"> › In-person workshops › Town hall-style meetings 	<ul style="list-style-type: none"> › Newsletters › Regular email updates with more engaged external parties (e.g. community leaders or businesses)
Useful for	Involving community as a whole in discussions about project goals and outcomes, gathering feedback, brainstorming ideas, and making residents feel heard	
Pop-up Information Booths		Temporary information stations in pilot areas
Useful for		Engaging passers-by, distributing information, and answering questions directly. Particularly useful for reaching more vulnerable populations or those who may not use digital tools
One-on-One Interviews	<ul style="list-style-type: none"> › Direct interviews › Focus group discussions › Other tailored interactions 	
Useful for	<p>Interacting with internal stakeholders, key external stakeholders, or populations facing language barriers or specific interaction challenges offering valuable insights into their concerns and idea.</p> <p>It makes the communication process more accessible and comfortable for the individuals involved, ensuring their input is effectively integrated into the projects</p>	

c. Print Media

Consider print-based communication for groups who may have limited access to digital tools, such as elderly residents.

Tool	Internal stakeholders	External stakeholders
Flyers and Brochures		Compact informational materials, varied in types, such as e.g. handbills, leaflets, etc
Useful for		Distribution in community centers, public spaces, and local businesses to inform the broader public about events, milestones, and how they can participate in the project
Posters and Banners		Large-format graphic materials with eye-catching designs and concise text
Useful for		Visual communication in public spaces to increase awareness of the project. Posters can include information on community events or the benefits of heat stress mitigation efforts
Local Newsletters or Newspapers	<ul style="list-style-type: none"> › Community-focused publications › Periodic publications that deliver news and information to the wide audience 	
Useful for	Sharing updates or promote project events, ensuring you reach a more traditional audience	

CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT



2.3.2 MESSAGE CLARITY AND ACCESSIBILITY

Communication tools must be adapted to ensure that the message is clear, accessible, and easily understood by a diverse audience

› Simplify Language:

Use plain, simple language and avoid technical jargon to ensure the message is understandable to a broad audience.

› Provide Multilingual Support:

Offer translations in multiple languages to reach non-native speakers in multilingual communities.

See example in the Appendix 1.

› Use Engaging and Accessible Formats:

> Incorporate visual aids like infographics, charts, and illustrations to simplify complex information and make it digestible for all literacy levels.

> Leverage interactive tools such as online polls, surveys, or feedback forms to encourage active stakeholder participation.

› Connect with Audience Values:

Relate the message to what specific audience cares about and align it with their priorities and concerns.

› Make It Tangible:

Use real-world examples, metaphors, and objects to explain abstract concepts like urban heat stress risks.

› Leverage Social Norms:

Emphasize actions taken by other organizations, departments, or communities to create a sense of collective movement and responsibility. Mention actions taken by other groups, organizations, or municipalities to inspire and normalize proactive behaviour.

› Frame Failure as Loss:

Highlight potential losses from inaction, leveraging people's natural aversion to loss to drive engagement.

› Frame impact:

Provide clear information about the impact of actions. Use data, success stories, or visuals to show how participation leads to real change. Make it easy to see the difference made.

› Prioritize Quality Over Quantity:

Focus on strong, most persuasive arguments and avoid overloading the audience with weaker points that dilute the message.

› Manage Expectations:

Set realistic and transparent expectations from the start. Clearly define what can and cannot be influenced and how feedback will be used. Avoid over-promising—people are more likely to stay engaged if they see honest communication and real results.



CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT



2.3.3 INCLUSIVITY AND ENGAGEMENT STRATEGIES

Ensure communication tools are inclusive and designed to engage marginalized or vulnerable populations.

- › **Accessibility Considerations:** Ensure all digital and print communications are accessible to people with disabilities (e.g., using alt text for images, easy-to-read fonts, audio versions of key documents).
- › **Culturally Relevant Messaging:** Tailor messages to be culturally appropriate and sensitive to the values and priorities of diverse community groups. Work with local leaders or organizations to refine your messaging.
- › **Youth and Elderly Engagement:** For youth, consider gamified tools, social media challenges, or school collaborations. For elderly populations, prioritize in-person engagement and clear, simple printed materials.
- › **Low-Income Groups Involvement:** Consider providing financial incentives, such as vouchers, or meal provisions, to encourage participation and support engagement in communication efforts.
- › **Collaboration with trusted intermediaries:** Community leaders, local influencers, or social work organizations, help build connections and foster trust, especially in cases where mistrust toward authorities may exist. Partner with those who already work closely with these groups to enhance communication and participation.



2.3.4 CUSTOMIZING TOOLS FOR DIFFERENT PHASES

Each project phase has unique needs, requiring different levels and methods of stakeholder and community engagement. Adapting communication tools to suit each phase is essential for effectively empowering stakeholders and helps ensure a more streamlined project flow

- › **Planning & Design Phase:** Focus on raising awareness about the project, educating stakeholders, and soliciting feedback on proposed ideas (e.g., via community meetings, surveys)
- › **Implementation Phase:** Keep stakeholders updated on ongoing developments, timelines, and any disruptions they may experience (e.g., social media posts, newsletters).
- › **Post-Implementation Phase:** Share outcomes, measure success, and provide opportunities for ongoing community involvement (e.g., final reports, citizen science platforms for ongoing monitoring).



CHAPTER 2: STAKEHOLDER ANALYSIS AND ENGAGEMENT



2.3.5 FEEDBACK MECHANISMS

Communication should be a two-way process, enabling stakeholders to provide input and feel involved in the decision-making process.

- › Have a **clearly identified point of contact** at the Municipality that is frequently available to engage, answer questions, etc, that is always present at all public meetings, and that represents the voice of the community.
- › **Online Surveys and Polls:** Distribute surveys via email or social media to gather feedback on project proposals or community needs. These tools are helpful for reaching large audiences quickly.
- › **Feedback Forms:** Create simple, easy-to-use feedback forms on the project's website or distribute them in-person during community events. Encourage residents to share their thoughts on interventions, such as green space enhancements or shading structures.
- › **Community Forums:** Host discussion boards or online forums where stakeholders can post questions, concerns, or suggestions. Moderated forums can promote healthy dialogue between the project team and the public.
- › **Always Test Your Message:** Before launching a survey, poll, or forum, test your message to ensure clarity and engagement. Check if the wording is accessible, free of jargon, and encourages meaningful responses.



CHAPTER 3: EDUCATION & TRAINING

This chapter focuses on approaches for building knowledge and skills to address heat stress for both internal and external stakeholders. It explains how to structure design awareness sessions and campaigns, and measure their success. It also includes capacity building blocks that help communities and stakeholders take action effectively.

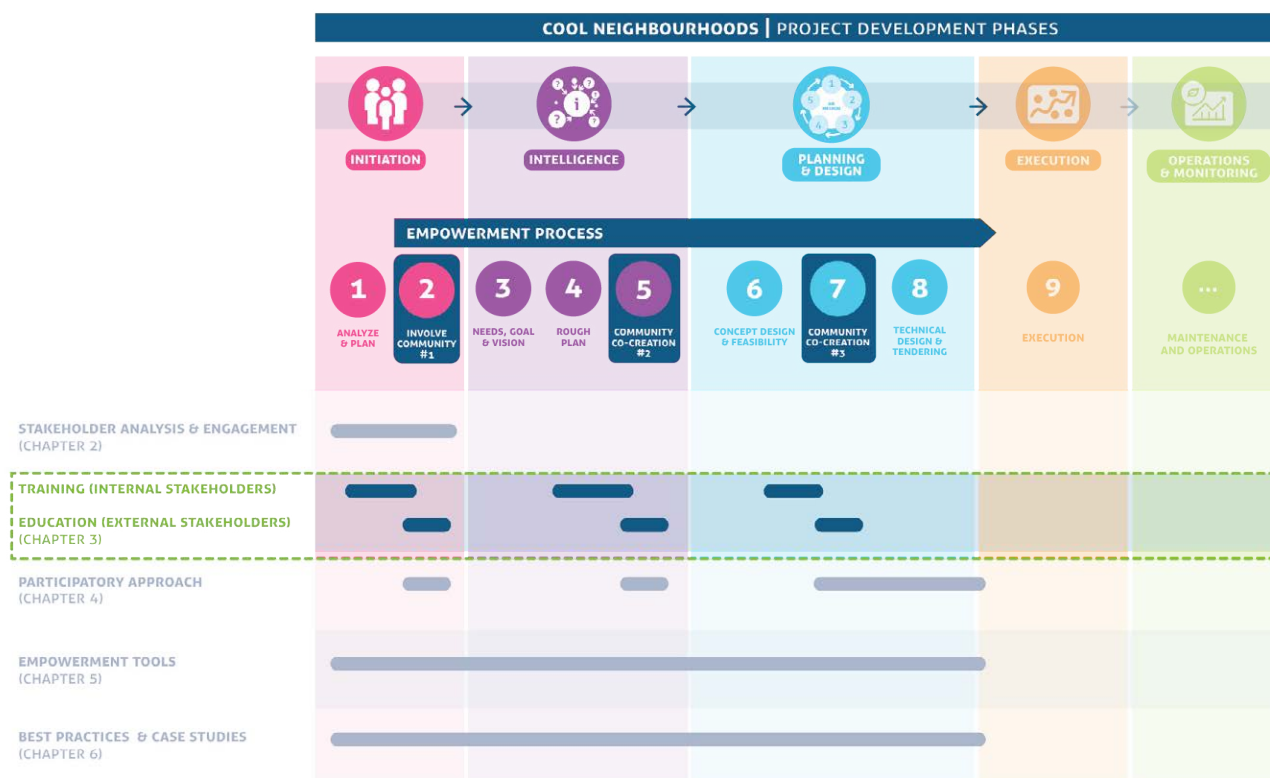
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CHAPTER 3: EDUCATION & TRAINING

3.1 Heat Stress Awareness

Educating external stakeholders—such as residents, community groups, and local businesses—about the causes, impacts, and solutions related to urban heat islands and climate change is a key component of the Cool Neighbourhoods project.

By raising awareness, stakeholders are better equipped to understand the need for cooling interventions and are motivated to participate in the co-creation process.

3.1.1 HEAT STRESS AWARENESS SESSION DESIGN

The following topics are recommended for inclusion in a heat stress awareness session:

Understanding Heat Stress

- › Definition and Science of Heat Stress: *Begin by clearly defining heat stress and explaining its scientific basis to provide foundational knowledge*
- › Contributing Factors: *Identify and outline the environmental, urban, and societal factors that exacerbate heat stress to give context to the issue*

Public Health Impacts

- › Health Risks Associated with Heat Stress: *Highlight the direct health impacts of heat stress, such as heat exhaustion and heatstroke, to emphasize its urgency*
- › Community Health Consequences: *Discuss broader public health implications, including the effects on vulnerable populations and healthcare systems, to show its wide-reaching impact*

Economic Impacts

- › Heat Stress and Local Economy: *Heatwaves reduce worker productivity and lead to economic losses, particularly in outdoor labor-intensive sectors, retail, and tourism. Discuss how fewer visitors in city centers during hot weather affect businesses, with examples from European cities.*

- › Impact on Retail and Services: *Extreme heat affects consumer behavior, leading to a drop in foot traffic and lower sales in clothing and shopping districts, while increasing demand for cooling-related goods.*

Mobility Impacts

- › Influence on Transport Choices: *High temperatures discourage walking and cycling, increasing car dependency and congestion. Discuss strategies to heat-proof mobility infrastructure, such as shaded walkways, green bus stops, and water stations.*
- › Public Transport and Infrastructure Challenges: *Heat exposure at bus stops, train stations, and cycling routes makes commuting uncomfortable, reducing public transport usage. Discuss the need for climate-adaptive mobility hubs with shaded waiting areas and ventilation solutions.*

Animal and Plant Welfare

- › Biodiversity and Urban Green Spaces: *Urban heat islands threaten biodiversity, stressing plant life and leading to habitat loss for birds and insects. Highlight the role of green infrastructure in cooling cities and supporting local ecosystems.*
- › Impact on Urban Trees and Greenery: *High temperatures and drought conditions weaken trees, reducing their ability to provide shade and cooling. Discuss the selection of climate-resilient species and sustainable irrigation techniques.*

Climate Adaptation and Mitigation Strategies

- › Individual-Level Strategies: *Present practical, everyday actions individuals can take to adapt to and mitigate heat stress, ensuring accessibility*
- › Community-Level Strategies: *Explore collaborative and systemic approaches, such as urban planning and policy changes, to address heat stress on a larger scale*

Refer to Appendix for an illustrative example of the Awareness session in the city of Goes.

Refer to Cool Towns Interreg project for extra training resources on heat stress awareness in English. World Health Organization (WHO) European Region has also published comprehensive guidance on heat-health action planning, emphasizing the importance of tailoring plans to specific regional contexts.

For training materials in local languages, it is recommended to use search engines to find suitable resources.

CHAPTER 3: EDUCATION & TRAINING

3.1.2 AWARENESS CAMPAIGNS

Awareness campaigns help people understand the risks of heat and climate change. They also give communities the tools to take action and stay safe. A good campaign informs, motivates, and brings people together. Each pilot area in the Cool Neighbourhoods project should adapt its campaign to fit the local situation

Below are the main steps to follow, along with useful examples and resources:

Campaign Design and Implementation

Start by making a simple plan. Define the goal: do you want to raise awareness, change behaviour, or get feedback? Keep the message clear and local. Use real examples that people in the area can relate to.

- › A good example: [Klimaatverbond Nederland's Hitteplan Toolkit \(NL\)](#) – a Dutch resource helping cities develop heat response plans with communication materials.
- › Also see: [Hitte en gezondheid – RIVM \(NL\)](#) – includes public communication tips on extreme heat.

Visual and Easy-to-Understand Materials

Use images, icons, and simple text. Videos and infographics work well. Keep language easy and translations ready if needed. Think about all ages and literacy levels.

- › Check out: [The Klimaatverbond Nederland's Hitteadaptatie \(NL\)](#) and [Vlaanderen free campaign materials \(BE\)](#) – include practical overview of heat communication and materials - posters, flyers, and videos about urban heat.

Community Activities

Run local sessions to talk with residents. These could be workshops, walking tours, or school visits. Use games, maps, or live demos to explain heat risks and cooling ideas. Ask for feedback and listen to local concerns.

- › See: [Samen Meten Utrecht Festival 2024 \(NL\)](#) – a public event using workshops, games, and citizen science to engage residents of all ages in climate and air quality awareness.
- › Good model: [Neighbourhood Nature \(UK\)](#) – encourages nature-based cooling through public involvement.

Each campaign should reflect the local culture, needs, and language - no one-size-fits-all approach.



CHAPTER 3: EDUCATION & TRAINING

3.1.3 EVALUATING AWARENESS EFFORTS

To know if your awareness campaign is working, it is important to check how people react, what they remember, and what they do with the information. This helps improve the campaign and make it more useful for the community.

› Monitoring and Assessment:

Set up simple tools to follow your campaign's progress. These could be:

- *Short surveys before and after events*
- *Feedback forms during workshops*
- *Observation checklists or informal interviews*
- *Social media and website activity if used*

Make sure the same type of data is collected throughout the campaign. It helps compare and learn what works best.

› Iterative Improvement:

Use the results of your evaluation to improve the campaign step by step. For example:

- *Change your messages if people don't understand them*
- *Add new materials if something is missing*
- *Switch methods if engagement is low*

Real case: Hitte en Gezondheid – RIVM – Dutch health agency uses public feedback to update their heat communication strategies yearly.

A campaign should grow with the people it is made for. Keep learning and adjusting. This makes your work more useful, trusted, and long-lasting.



CHAPTER 3: EDUCATION & TRAINING

3.2 Capacity Building

Cities can only cool down if the people working on them know how. That is why building the skills of municipal staff, local authorities, and project partners is key. They are the ones who make sure urban cooling strategies are planned well, carried out properly, and maintained over time.

Training staff helps:

- › Understand heat stress and its impact on health and daily life
- › Communicate clearly with residents and colleagues
- › Make informed decisions, integrate cooling solutions into policy and neighbourhood planning
- › Involve communities in a meaningful way

The Capacity building workstream of the Cool Neighbourhoods project is led by the **Province of Antwerp**.

With training municipal staff being at the core of it, the process facilitates putting knowledge into action through:

- › Training on heat stress: Understanding causes, links to ecosystems, and effects on health and liveability.
- › Raising awareness & urgency: Providing up-to-date strategies to reduce heat stress
- › Empowering stakeholders: Learning how to engage communities, communicate effectively, and apply best practices in participation and decision-making.

For more details, check the materials from **the Province of Antwerp: Output 1.1 Neighbourhood Heat-Stress Action Plan (NHSAP) training scheme for heat-stress mitigation on neighbourhood level.**



CHAPTER 4: PARTICIPATORY APPROACH

This chapter helps structure the co-creation sessions. It explains the steps for effective co-creation and how to handle common challenges.

Strategies are included to address issues like limited resources, community resistance, bureaucratic hurdles, and the lack of regulations or tools.

4.1 CO-CREATION PROCESS FOR COOL NEIGHBOURHOODS 24

4.1.1 PREPARATION FOR "INVOLVE THE COMMUNITY":
ANALYZE AND PLAN

4.1.2 INVOLVE THE COMMUNITY INFORMATION SESSION

4.1.3 IN BETWEEN WORK AND PREPARATION FOR THE
COMMUNITY CO-CREATION #1

4.1.4 COMMUNITY CO-CREATION #1 DESIGN SCENARIO'S

4.1.5 IN BETWEEN WORK AND PREPARATION FOR THE
COMMUNITY CO-CREATION #2

4.1.6 COMMUNITY CO-CREATION #2 FINALIZATION OF THE
PLAN

4.1.7 STEPS AFTER THE LAST COCREATION

4.2 OVERCOMING CHALLENGES IN THE EMPOWERMENT PROCESS 36

4.2.1 IDENTIFYING COMMON CHALLENGES

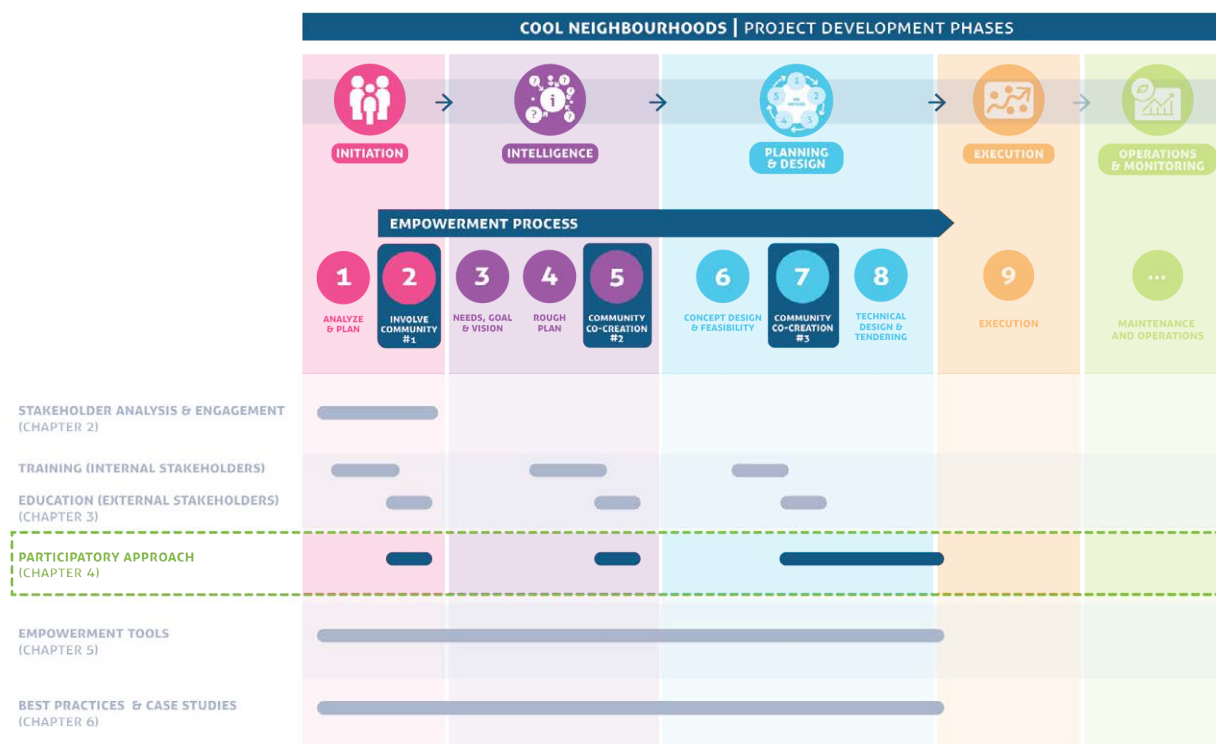
4.2.2 STRATEGIES TO ADDRESS RESOURCE LIMITATIONS

4.2.3 STRATEGIES TO OVERCOME COMMUNITY RESISTANCE

4.2.4 STRATEGIES FOR NAVIGATING BUREAUCRATIC
HURDLES

4.2.5 STRATEGIES TO DEAL WITH THE ABSENCE OF REGULA-
TIONS AND TOOLS

4.2.6 MAINTAINING MOMENTUM AND ENCOURAGING
PARTICIPATION



CHAPTER 4: PARTICIPATORY APPROACH

4.1 Co-creation process for Cool Neighbourhoods

The Cool Neighbourhoods program focuses on empowerment and participatory processes throughout the development of urban heat stress mitigation projects. In a typical Cool Neighbourhoods plan, three participation sessions are conducted, followed by a period of aftercare and communication. They are step 2, 5 and 7 in the process diagram on the right. The whole process from step 1 to the start of step 8 process takes about 4-6 months, during which the concept design is shaped. After this phase, in step 8, technical development and execution takes place.

The typical 3 sessions are, described in further detail on the next pages:

- 2** **Involve the community** *Information session*
- 5** **Community co-creation #1** *Design scenario's*
- 7** **Community co-creation #2** *Finalization of the plan*

Proper facilitation is key

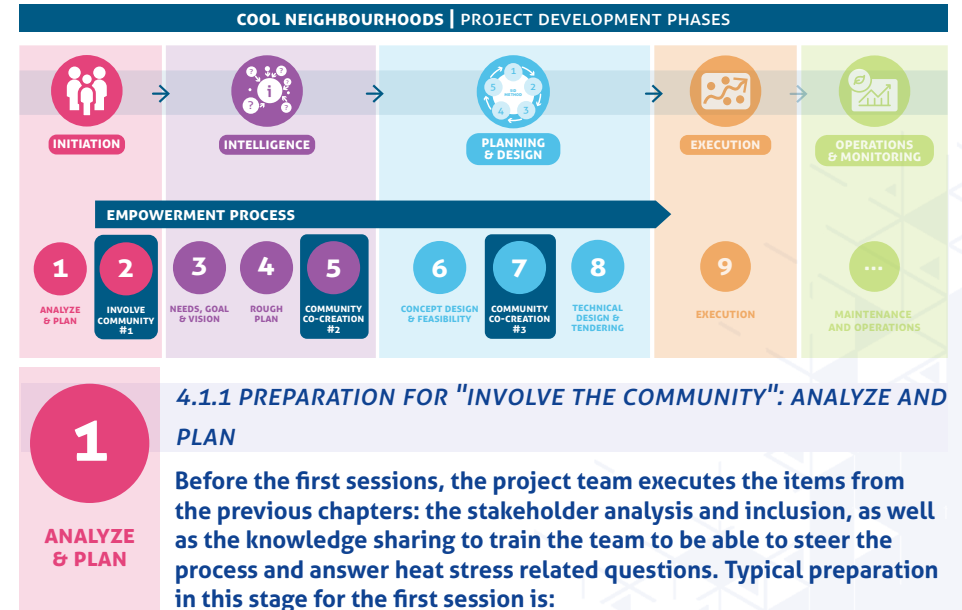
Facilitators guide participants by asking the right questions and offering support. They help create an environment where everyone can share ideas and stay engaged. This ensures that all voices are heard and the outcomes are useful and clear. This is preferably done by someone experienced in participation processes.

Make sessions attractive and fun

A strong recommendation for these sessions is to provide **free food and drinks** for the participants, as this helps create a welcoming and inclusive environment. The **venue** should be low-key, ideally located in or within walking distance of the site the project is focused on. This makes it easy for local residents and stakeholders to attend. It also should be spacious, with room for large prints on the wall, and tables to work on in small groups.

Make sessions inclusive and diverse

The sessions should be open to a **wide range of participants**, including local residents, municipal staff, planners, property owners, social workers, and community managers. These participants should represent both internal and external stakeholders identified in **Chapter 2** of the guidebook. It is highly recommended to have at least some of the same stakeholders attending all three co-creation sessions to ensure consistency and build trust throughout the process.



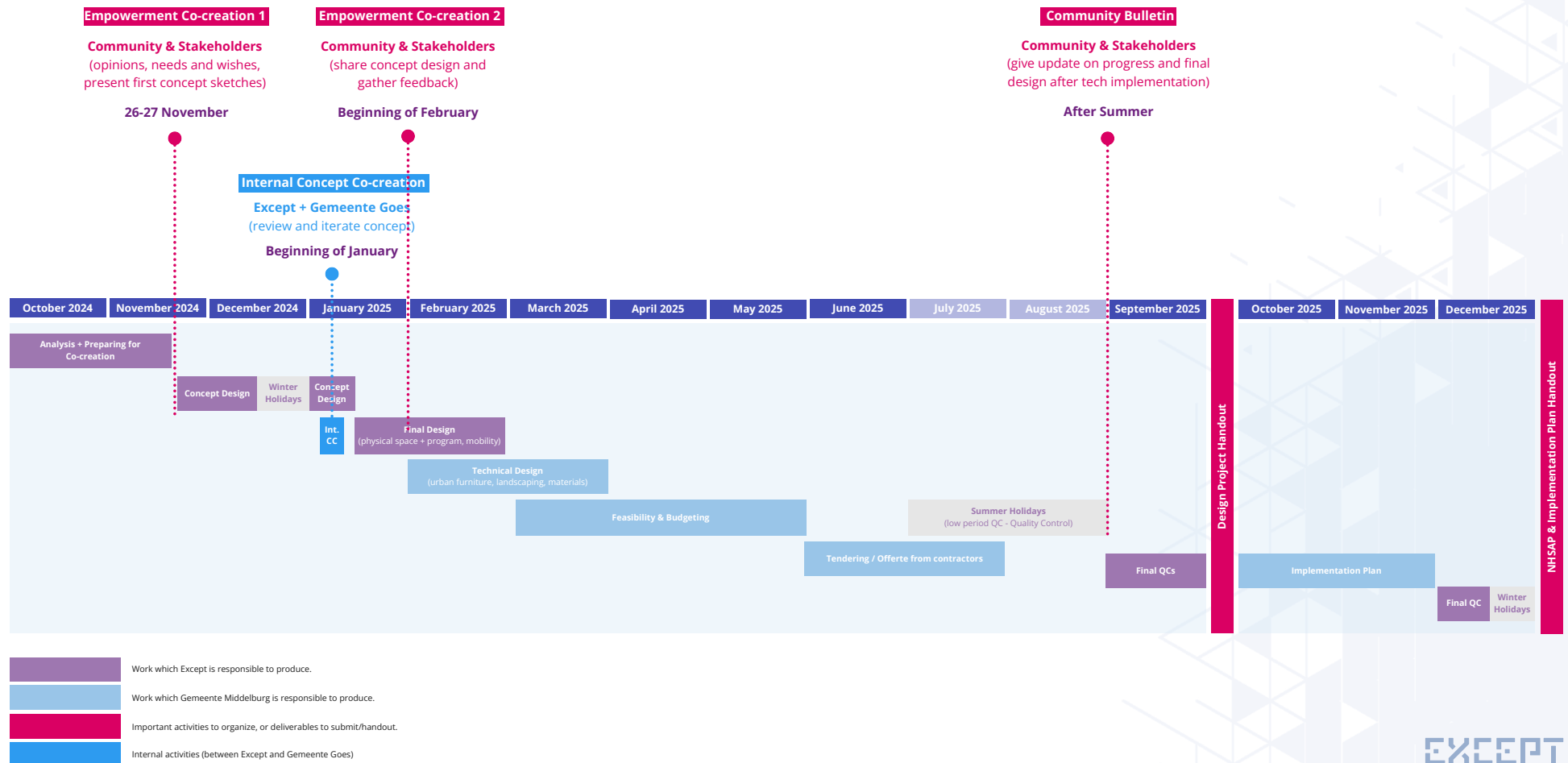
- › Document the site, the goals, and the challenge in a presentation. Make sure to include any pre-existing plans, edge-conditions and hard limitations
- › Gather information about heat stress to communicate to the participants. If you use a pre-existing one, modify it to include examples of the actual site.
- › Plan the first sessions, find a good location, and start inviting people.

CHAPTER 4: PARTICIPATORY APPROACH

Example of 'tight' project planning for the CN pilots in Goes, the Netherlands

This GANTT chart shows the planning process for the pilots in Gemeente Goes, as made by Except and executed in collaboration with Gemeente Goes, as executed in 2025. The first participation meeting preceded this process.

Roadmap for Pilot Project Development | Gemeente Goes | Iteration 31/10/2024



CHAPTER 4: PARTICIPATORY APPROACH

2

INVOLVE
COMMUNITY
#1

4.1.2 INVOLVE THE COMMUNITY INFORMATION SESSION

Duration: 1,5-2 hours - Group size: 20-40

This session is meant to inform the community about the project - what is happening, the rough planning timeline, and the essence of the Cool Neighbourhoods program. For municipal staff and planners, it is also a chance to understand the soft vibes, the local atmosphere: how the space is used, how do people feel about their surroundings, and what they need to improve public areas, social contact, and a sense of ownership and connection.

The location for intervention is shown, its analysis, and its challenges. It is also valuable to communicate here about the budget and the restrictions of the project to ensure that expectations are managed.

It also serves to set expectations about the level and type of involvement needed from participants and to outline the next steps for interaction in the project.

Additionally, it is the ideal moment to talk about heat stress and explore interest in empowering residents as green ambassadors for light maintenance tasks. For the presentation, one of the presentations listed in Chapter 3 may be used as a starting point. Also, it helps to show practical examples of a successful project to set the right mindset.



Info session at Gemeente Goes, location Bastion (Except)

Agenda for the Information Session:

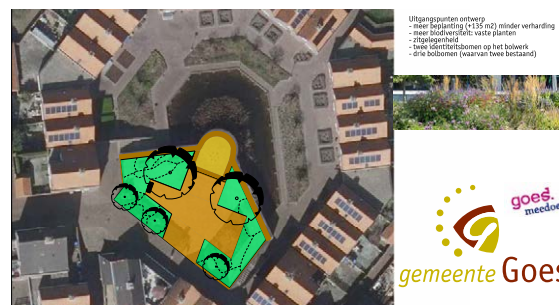
1. Introduction and Expectations (10 min)
2. Overview of the Cool Neighbourhoods Program and Heat Stress (10 min)
3. Overview of the project location, its analysis, and challenges
4. Presentation of the Cooling Interventions Catalogue (10 min)
5. Q&A Session (10 min)
6. Exercise 1: How Do You Use the Location? What Works, and What Needs Improvement? (20–30 min)
7. Exercise 2: What Interventions Would You Like, and Where? (20–30 min)
8. Next Steps: Planning, Process, and Upcoming Sessions for Involvement (5 min)

Tools: Presentation slides, flipcharts for exercise 1, different colors post it's and markers, large-scale printed maps for exercise 2, visuals, interactive polling (e.g., Mentimeter)



Info session at Gemeente Goes, location Stadskantoor (Except)

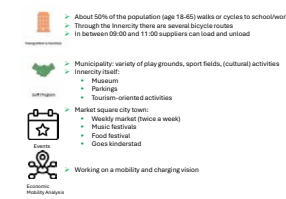
Cool Neighbourhoods



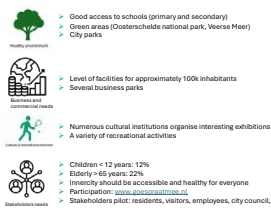
DEMOGRAPHICS



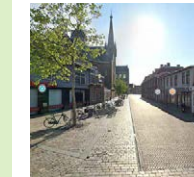
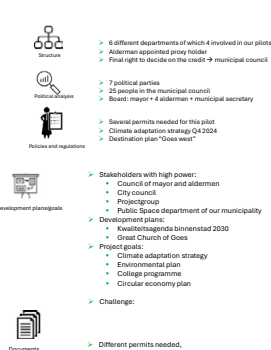
PROGRAMMA & MOBILITY REQUIREMENTS



STAKEHOLDERS



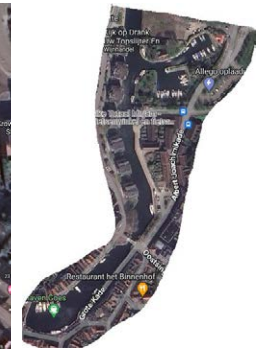
LOCAL POLITICS



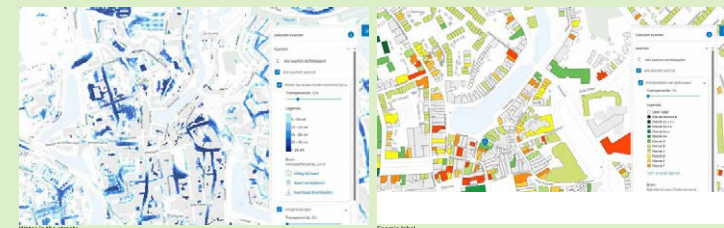
Zusterstraat
Land use: Retail and hospitality
Year built: 1900-1990
Energy labels: B, D, E, G and many unknown
Movability: 60-80
Transport:
• Car (40%)
• (Electric) bicycle (36%)
• By foot (14%)



Bastion
Land use: Residential
Year built: 1983
Energy labels: A, B, C
Movability: 60-80
Transport:
• Not accessible by car



Stadshaven
Land use: residential and retail and hospitality
Year built: 1500-1950
Energy ratings: A-G
Movability: 60-80



Example of an information board made for the info session for the city of Goes pilot projects. No design is shown but a lot of valuable contextual information is shared. (Gemeente Goes).

CHAPTER 4: PARTICIPATORY APPROACH



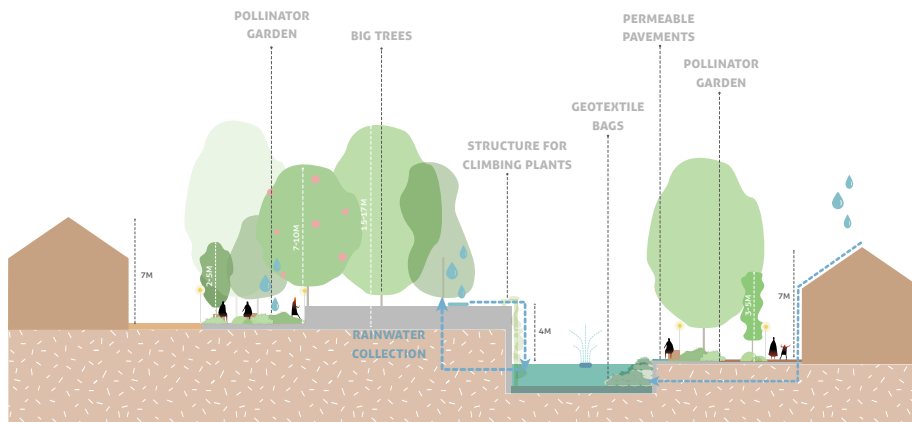
4.1.3 IN BETWEEN WORK AND PREPARATION FOR THE COMMUNITY CO-CREATION #1

After the first session, the team should have a good grasp of:

- (1) What the main 'feelings' and opinions are of the project area
- (2) A refined understanding of its challenges, the big resistance, as well as enthusiasm factors
- (3) Who the important players are in the area to take into account

Based on this, the team works together with the landscape designers and project team to draft the first sketch ideas. It is best to make around three different scenarios, and sketch them (with basic hand drawings or sketches) to scope out different possibilities. Check with the engineering team if any of the sketches are outright impossible. If so, adjust them, and only present sketches that are, roughly, within the possibilities (again, to manage expectations).

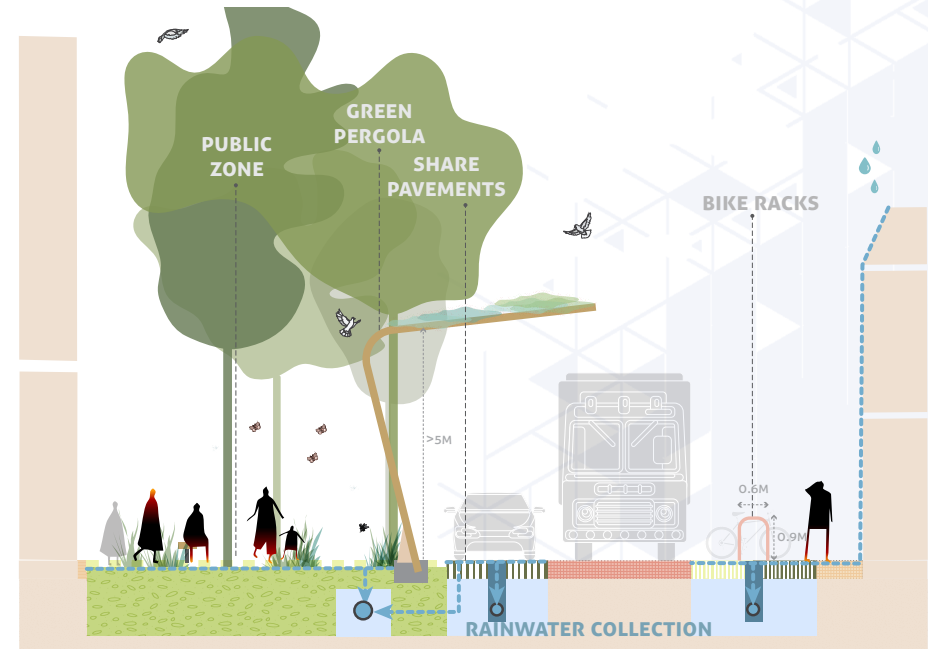
Then, plan and organize the Community Co-creation #1. You will need more space, more wall space, and a longer period of time for that session, so take this into account when planning.



Example of a sketch level sectional design of the heat stress mitigation design for Goes, location Bastion (Except)



Example of a sketch level exploration of the heat stress mitigation design for Goes, location Zusterstraat (Except)



Example of a sketch level sectional design of the heat stress mitigation design for Goes, location Zusterstraat (Except)

CHAPTER 4: PARTICIPATORY APPROACH

5

COMMUNITY
CO-CREATION
#2

4.1.4 COMMUNITY CO-CREATION #1 DESIGN SCENARIO'S

Duration: 3 hours

Group size: 20 - 40 people

This first Community Co-creation session aims to get substantial feedback from the community about the presented idea sketches, and build on them to get more focused feedback from the various stakeholders.

The session is characterized by a small presentation and project update, an explanation of how the cocreation works, and then most of the time spent on working together in groups of 4-8 people in 2 distinct rounds, with a review of the outcomes at the end of each round. Each team needs to be facilitated by someone from the project team that takes notes and gives the summary at the end.

Be creative with letting participants be creative

Creativity begets creativity. Give materials to participants that are fun and easy to play with. Preferably, everything physical, not digital and avoid the use of screens during the exercises. The sketches can be communicated using LEGO models, spatial models, reference images, hand sketches, or base maps with intervention cut-outs, for example. Then invite participants to share their ideas and reflections with the group and facilitators.

In Exercise 1, split in groups of 4-8 participants, encourage the groups to explore and experiment. Dream big, let people go wild. You can use the cut-out elements or LEGO pieces on the base maps or models. This helps identify where various interventions fit within the spatial context. This exercise concludes by summarizing the discussion and ideas to the whole session participants in 3-4 minutes.

In Exercise 2, shake up the groups so that new teams form. Start from scratch, and ask the participants to put in the best of the ideas of the last round, but this time be realistic. What really needs to happen? What can absolutely not happen? Make sure the facilitators take notes on this. Review again after this, and allow final questions and discussion before conclusion.

Last words: Ensure to communicate that this was not the last session, and that all feedback is taken into a refinement of the sketches, to present the final concept ideas in the next session. That there is still plenty of room to give input. Invite participants to spread the word to increase number of participants in the last session.



CHAPTER 4: PARTICIPATORY APPROACH

Agenda and tools

Agenda for the Design Scenario's Session (3 hours):

1. Introduction, Updates, and Expectations (10 min)
2. Presentation of Two to Three Sketch Scenarios (20 min)
3. Q&A and Feedback Round (10 min)
4. Exercise 1: 'Puzzle and Invent' (40 min)
5. Presentations & Summary (20 min)
6. 15 minute break
7. Exercise 2: 'Explore and Realize' (40 min)
8. Presentations & Summary (20 min)
9. Next Steps and Planning Update (5 min)

Tools: Presentation slides, different colors post it's and markers, large-scale printed maps, lego, cut out elements,



Co-creation #1 for Gemeente Goes, location Zusterstraat (Except)

Session checklist

- › Ensure a large room, at least 2x the size of maximum participants, to have room for creative sessions
- › A bluetooth speaker helps to play music in breaks and end invites early, remind participants, and invite them in different ways
- › Ensure lovely snacks, drinks, and fun things
- › Have plenty of large paper, post its, flipovers, etc
- › Ensure the whole session is facilitated by an experienced facilitator, and to have support for note taking for all groups
- › Ensure plenty of photos are taken during the session
- › Ensure a sign-up list to leave contact info for participants
- › Ensure all material is photographed before the room is cleaned out. Posters and things get lost, and post-its fall off posters, so document everything really well
- › Make a summary outcome and share it.
- › Make a social media post sharing the outcomes



Co-creation #1 for Gemeente Goes, location Bastion (Except)



permeable paving	bio swales	shading greenery fabric	seating + flowerbed	seating	structure for climbing plants
pergola	rain garden	trees	tree in planter	green wall	

EXCEPT
INTEGRATED SUSTAINABILITY

CHAPTER 4: PARTICIPATORY APPROACH

6

CONCEPT DESIGN
& FEASIBILITY

4.1.5 IN BETWEEN WORK AND PREPARATION FOR THE COMMUNITY CO-CREATION #2

After the second session, the majority of input is collected. It is time to select the scenario, and mix all feedback together to make one final concept design. Ensure again the alignment with the engineering team, and do a budget check.

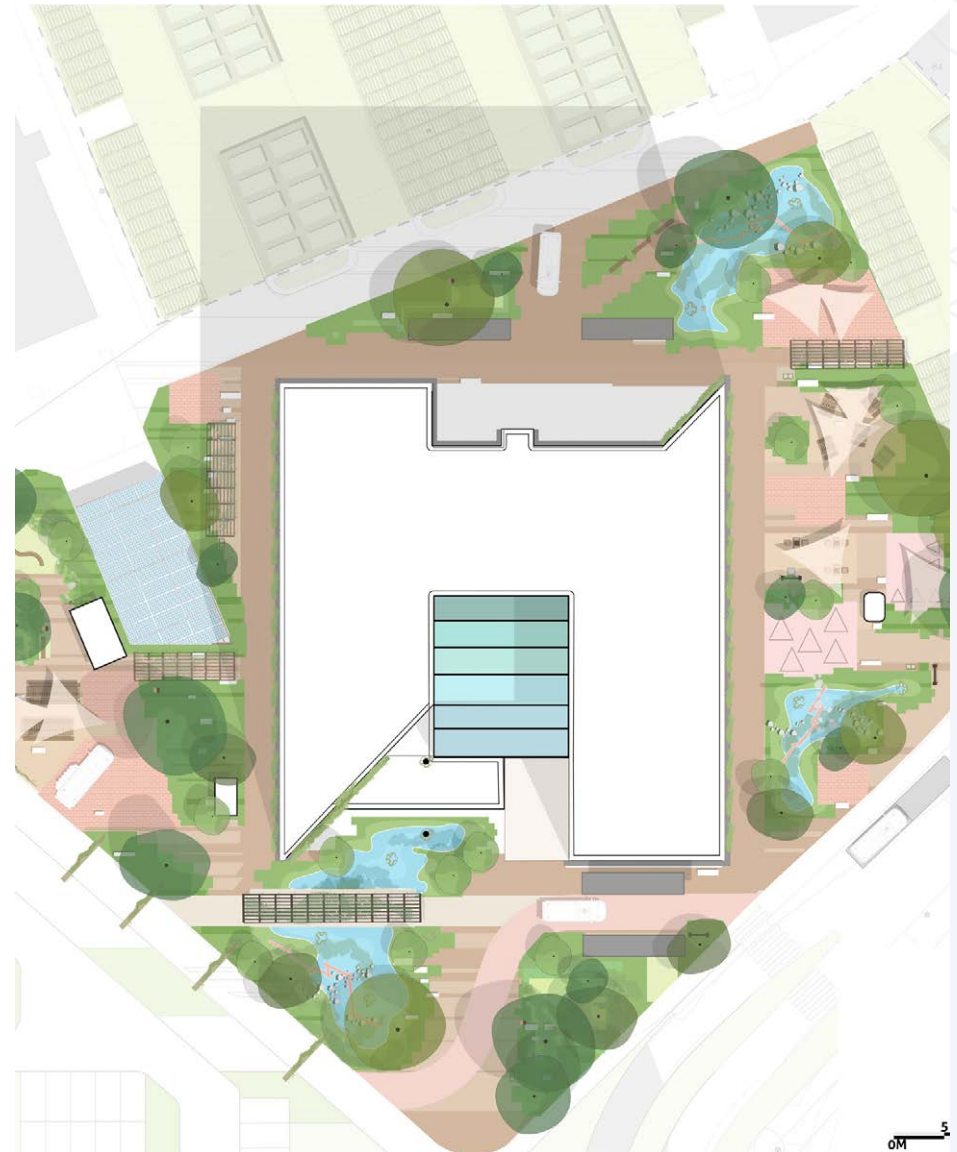
Produce:

- Concept diagrams
- Concept masterplan
- Concept Sections
- Concept Budget
- Concept Artist Impressions
- Presentation with timeline

Make the design drawings, and start preparing for Cocreation session #2. This session is typically the same size and length as the first one, and the same space can be used. space, and a longer period of time for that session, so take this into account when planning.



Example of a concept level masterplan design of the heat stress mitigation design for Goes, location Zusterstraat (Except)



Example of a concept level masterplan design of the heat stress mitigation design for Goes, location Stadskantoor (Except)

CHAPTER 4: PARTICIPATORY APPROACH

Interreg  Co-funded by the European Union
North-West Europe

Cool Neighbourhoods



Stepping bars



Stepping/Seating Logs



Pergola's



Green Tunnel

Example of design development after co-creation 2 of Bastion location Goes (Except)

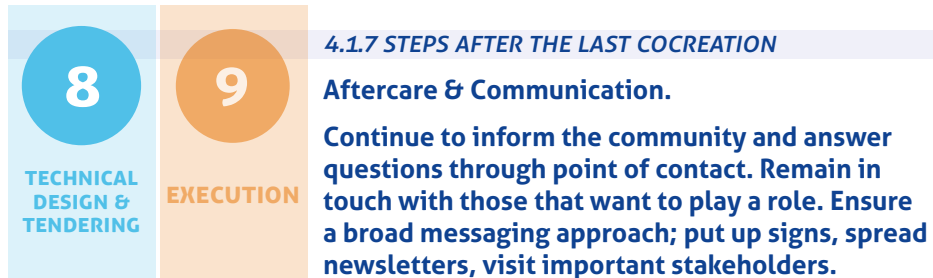


Benches



EXCEPT
INTEGRATED SUSTAINABILITY

CHAPTER 4: PARTICIPATORY APPROACH



Meanwhile:

- › Finalize design with designers and engineering team
- › Get approval for budget and costing
- › Prepare market enquiry for construction and purchasing
- › Work on the final execution of the plan
- › Communicate regularly with the stakeholders on the progress and status of the plans



June 2023



June 2021



November 2021



March 2022 (opening)

Example of development of urban greening and heat stress mitigation project in Roosendaal, the Netherlands, from beginning, during construction, and the final result. (Except)

CHAPTER 4: PARTICIPATORY APPROACH

4.2 Overcoming Challenges in the Empowerment Process

Even if you prepare everything into detail in a co-creation, there is one thing you can not prepare for and that is the diversity of input of the participants. It's good to surface resistance and dissent, in order to be able to address the real challenges that are often present. This chapter explores typical barriers such as resource limitations, community resistance, and bureaucratic hurdles, while providing practical solutions to maintain momentum, encourage participation, and ensure sustained engagement throughout the process.

4.2.1 IDENTIFYING COMMON CHALLENGES

› Resource Limitations

One of the most significant barriers to community empowerment is the lack of resources, which can include funding, staff, and materials. Limited financial resources may restrict the scope of projects, while a shortage of skilled personnel can hinder effective implementation.

› Resistance to change

Many people do not like change. They prefer things to stay the way they are. This is part of who we are as human beings, and a healthy, natural part of the mindset of (parts of) a diverse community. Yet, this can slow down and deflate the energy in such a change process.

› Bureaucratic Hurdles

Navigating local regulations, permitting processes, and bureaucratic red tape can be daunting for community-led initiatives. These hurdles can slow down project timelines and deter participation, particularly if community members feel overwhelmed by the complexities of government procedures.

› Absence of Regulations/Tools

The absence of policies specifically targeting urban heat mitigation can leave municipalities without a framework for implementing effective strategies. Similarly, the lack of standardized tools can hinder planning and decision-making. This regulatory and technical gap often results in inconsistent approaches, missed opportunities for systemic solutions, and a slower response to escalating climate risks.

› Maintaining Momentum

Keeping a project going strong over time can be difficult. People may lose interest if progress is slow, other tasks take priority, or results are not clear.

4.2.2 STRATEGIES TO ADDRESS RESOURCE LIMITATIONS

Every project has resource limitations, be they money, time, available people, or limiting regulations. What matters in processes like these is to map these limitations as best as possible ahead of the project, and communicate them clearly to all participants. If this is not done, participants may have expectations that cannot be met. This needs to be 'nipped in the bud' as soon as possible. Be very clear about what can and cannot be done in this process, from the first session to the last. Explain the situation to everyone. Allow people to complain about this, and sympathize with them. Then, after lamentations about what is not possible have been processed, pivot the conversation to what IS possible, and what the advantages are of that. Do not forget to stress the necessity of urban heat stress mitigation, and the cost of not doing something about it.

Financial resource limitations may be helped through finding additional grants, sponsorships, and community fundraising. Engaging local businesses and organizations can also yield in-kind support, such as materials or volunteer labor. If such measures are considered, they need to be clear before the first participation meeting. It's highly unlikely to succeed in doing these if they are started halfway through the process. Establishing partnerships with universities or NGOs can provide access to expertise and additional resources, enhancing project capacity.

Capacity shortages may be alleviated by seeing what the community may pick up in the process, and be encouraged to contribute their skills and time, fostering a sense of ownership and investment in the project. Organizing workshops or training sessions can help build capacity within the community, ensuring that residents are equipped to take on various roles and responsibilities. Also here, be sure what approach to take before the first meeting, and be clear about it.

CHAPTER 4: PARTICIPATORY APPROACH

4.2.3 STRATEGIES TO OVERCOME COMMUNITY RESISTANCE

To address community resistance to change, it is crucial to foster open communication and actively engage residents from the beginning. Often, resistance to change requires people to get used to the idea that something is going to be changed. Once they accept that change is inevitable, inviting them to help steer what direction this change may go towards may be more successful.

To do this, make sure to address the urgency of addressing heat stress mitigation. Explain, with concrete evidence about costs, health effects, loss of revenue, and so on in the first participation meeting, and summarize this story at the start of each cocreation. Utilizing storytelling, local examples, and data can help illustrate the potential impact and relevance of the initiative.

One of the reasons a co-creation approach helps, is to overcome resistance to change. Involving community members in the decision-making process enhances buy-in. Creating opportunities for residents to share their concerns, suggestions, and ideas fosters a sense of ownership and collaboration. Demonstrating early successes, even small ones, can help build trust and show the community that the project is making a positive difference. For this reason, organizing 3 sessions is important. Not one, not two, but three. This may seem excessive to some, but doing so will remove resistance, improve community support, and help speed up the process eventually.

4.2.4 STRATEGIES FOR NAVIGATING BUREAUCRATIC HURDLES

Since heat stress mitigation processes are mostly initiated by the local municipality, and you as a reader are likely to be working at one, you will be familiar with bureaucratic hurdles. This means you will know that things will go better if you address potential resistance early on, to allow the process to take time. In the stakeholder analysis, place special attention to potential resistance 'from within' in the steps that deal with internal stakeholders.

A critical internal stakeholder in nearly all cases is the technical/engineering department of the municipality that needs to execute the technical drawings, do the research on underground infrastructure, and be responsible for the feasibility and costing. Involve one or more individuals from that team from the beginning, and make sure they attend the co-creation processes. After these sessions, book a meeting with them to address their concerns, and note them carefully. Be sure to channel these concerns to the designers, so that they are taken into account early on.

Similar for those involved in clearing the budget and approving the project once a concept plan is ready. Try to involve them in the process as much as possible and their time allows for.

CHAPTER 4: PARTICIPATORY APPROACH

4.2.5 STRATEGIES TO DEAL WITH THE ABSENCE OF REGULATIONS AND TOOLS

In the absence of clear regulations and tools, fostering local innovation and collaboration becomes critical. Partnering with universities, NGOs, or technical experts can help develop tailored guidelines, frameworks, and tools, such as heat maps or community action plans. Engaging policymakers early in the process can also drive awareness and potentially inspire regulatory development.

Encouraging local stakeholders to share knowledge and best practices can fill gaps where formal tools are lacking. Creating pilot programs or small-scale initiatives allows for testing and refining approaches, providing practical insights that can guide broader applications. Clear documentation of these efforts ensures replicability and consistency across similar projects.

4.2.6 MAINTAINING MOMENTUM AND ENCOURAGING PARTICIPATION

To sustain engagement and momentum throughout the empowerment process, it is vital to create a sense of community and shared purpose. Regular check-ins, community meetings, and progress updates can help keep residents informed and engaged. Celebrating milestones and achievements, no matter how small, reinforces the community's commitment and highlights the positive impacts of their efforts.

Offering ongoing opportunities for participation—whether through workshops, volunteer days, or social events—ensures that residents remain actively involved. Providing diverse roles and tasks can also accommodate varying interests and skill sets, encouraging broader participation and reinforcing a sense of belonging.

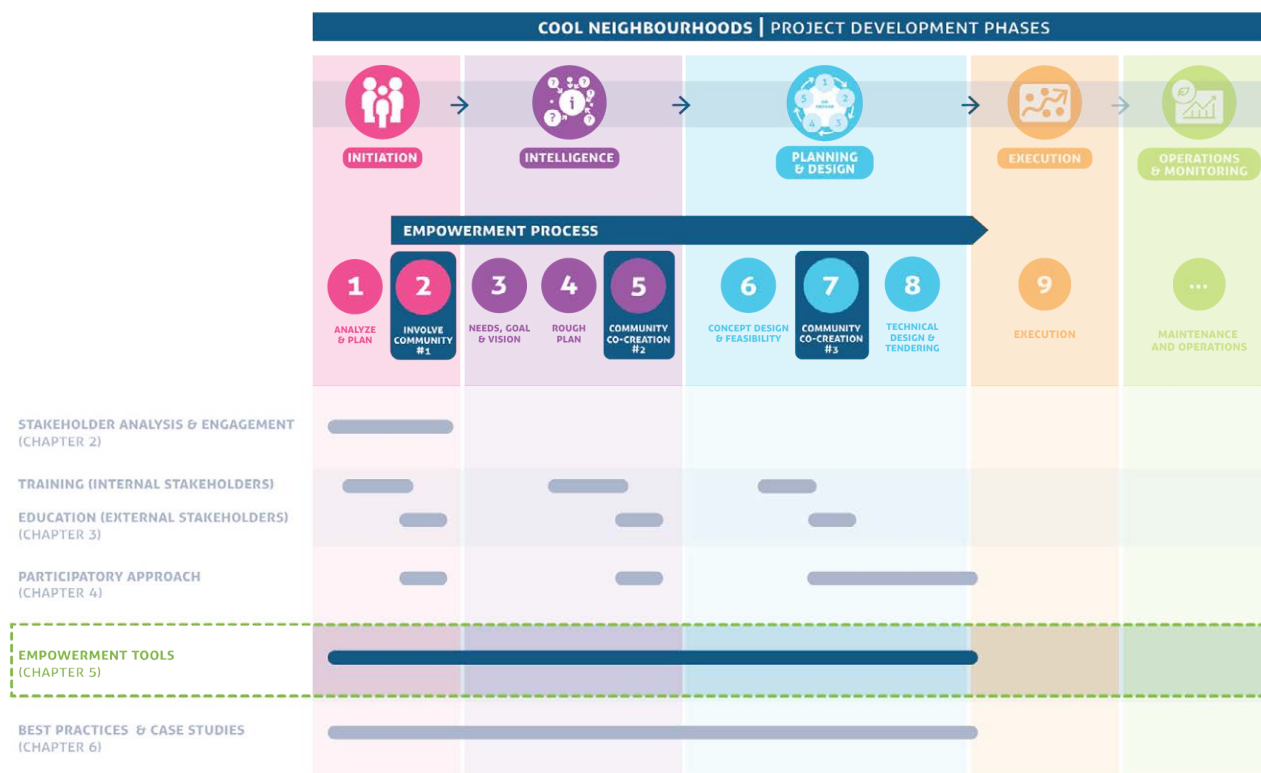


CHAPTER 5: EMPOWERMENT TOOLS

This chapter includes tools to support the different stages of the project. It includes tools for decision-making, participation, training, and communication.

Monitoring and evaluation tools help track progress during, while tools for sustainable action and long-term engagement are broader and useful in the final project phases.

5.1 DECISION-MAKING TOOLS	40
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5.6 TOOLS FOR SUSTAINABLE ACTION AND LONG-TERM ENGAGEMENT	43



CHAPTER 5: EMPOWERMENT TOOLS

Empowerment Tools offer practical frameworks, resources, and strategies that empower individuals and groups with the knowledge and skills needed to engage in decision-making, planning, and implementation processes.

This chapter presents a range of empowerment tools designed to promote community engagement, strengthen collaboration, and ensure the long-term sustainability of urban cooling efforts.

5.1 Decision-Making Tools

Decision-making tools help guide participants through the process of identifying local heat stress challenges, setting priorities, and selecting appropriate interventions.

› **Community-Based Decision-Making:**

Introduce simple tools, such as flowcharts or decision trees, that allow stakeholders to navigate through potential cooling strategies based on local needs and conditions. This ensures that the solutions are both practical and context-specific.

[*Refer to Case 2 Cooling Singapore Initiative*](#)

› **Participatory Budgeting:**

Provide a framework that allows communities to have a say in how resources are allocated for heat mitigation efforts. This can involve local meetings where stakeholders vote on the most important interventions.

[*Refer to Case 2 Cooling Singapore Initiative*](#)

› **Prioritization Tools:**

Offer scoring systems or ranking tools to help communities prioritize cooling solutions based on factors such as feasibility, cost, and impact. These tools make the decision-making process transparent and collaborative.

[*Refer to Case 3 Phoenix Cool Corridors Program*](#)



CHAPTER 5: EMPOWERMENT TOOLS

5.2 Participatory Tools

Participatory tools engage stakeholders in meaningful ways, ensuring that they are actively involved in identifying problems, contributing ideas, and shaping solutions. These tools also create a sense of ownership and accountability among communities.

- › **Workshops and Focus Groups:** Facilitate interactive workshops or focus groups that gather community members, local businesses, and municipal staff. These sessions enable brainstorming, discussing challenges, and collaboratively designing solutions, capturing diverse perspectives and ensuring that all voices are heard.

[Refer to Case 1 Superblocks Project, Case 2 Cooling Singapore Initiative, Case 3 Phoenix Cool Corridors Program, Case 4 OASIS - Schoolyards, Case 7: Molenwaterpark](#)

- › **Community Mapping:** Organize participatory mapping exercises where residents can identify heat stress hotspots in their neighbourhoods. This visual tool allows participants to highlight specific areas where interventions such as shading, green spaces, or water features are needed.

[Case 3 Phoenix Cool Corridors Program, Case 7: Molenwaterpark](#)

- › **Citizen Science Platforms:** Enable community members to collect and share local heat data via mobile apps or online platforms. Residents can report temperatures, record heat-related incidents, or provide feedback on implemented interventions. Citizen science initiatives empower communities to contribute valuable data, shaping both current and future projects.

[Case 2 Cooling Singapore Initiative](#)

In the *Cool Neighbourhoods project*, **HZ University of Applied Sciences** leads the Citizen Science workstream and has developed a guidance document on sensor installation and data collection. It focuses on both outdoor and indoor temperature measurements, linking public space interventions to indoor comfort.

Citizen science may follow three participation levels:

- › **Participatory Citizen Science** – Residents primarily collect data (e.g., surveys, temperature tracking). Suitable for deprived areas where engagement may be lower.
- › **Collaborative Citizen Science** – Community members contribute to research design and data analysis (e.g., panels, workshops). Adaptable to different neighbourhoods.
- › **Co-produced Citizen Science** – Full participation from idea generation to data interpretation. Feasible for engaged communities but less practical in deprived areas.

For further details please refer to the Guideline sensors and citizen science by **HZ University**, which is part of the **Output 3.1: Liveability Strategy**.

- › **Community coordination via Tactical Urbanism:** Use temporary initiatives like pop-up plazas or green streets to coordinate community efforts and test design ideas. These quick, low-cost interventions allow residents to experience proposed changes firsthand and provide feedback. Tactical urbanism fosters collaboration, empowers communities to shape their neighborhoods, and helps refine solutions before permanent implementation.

[Refer to Case 1 Superblocks Project](#)



CHAPTER 5: EMPOWERMENT TOOLS

5.3 Training and Capacity-Building Tools

Provide tools and resources that empower residents and stakeholders with the skills and knowledge necessary to address heat stress effectively. Training and capacity-building initiatives help ensure long-term engagement and informed participation in urban cooling projects.

- › **Skill Development Workshops:** Offer workshops on topics like heat stress mitigation, sustainable urban design, and green infrastructure. Tailor these sessions for different audiences, such as community members, local organizations, and municipal staff.

Case 3 Phoenix Cool Corridors Program

- › **Educational Resources:** Provide accessible resources—such as guides, infographics, or videos—that explain key concepts in managing urban heat, enabling participants to continue learning outside of formal training sessions.

Refer to Case 5: PROSUD

- › **Peer Mentorship Programs:** Establish mentorships where experienced community members or experts guide others in understanding heat stress challenges and implementing cooling strategies.

5.4 Communication and Outreach Tools

Effective communication is key to empowering communities. Communication tools ensure that all stakeholders are informed, engaged, and able to participate meaningfully.

- › **Multilingual Information Materials:** Ensure resources are accessible to non-native speakers by providing materials in multiple languages relevant to the community.

Case 2 Cooling Singapore Initiative

- › **Interactive Communication Channels:** Use platforms like community forums, social media groups, and mobile apps where stakeholders can ask questions, share ideas, and receive updates.

Refer to Case 1 Superblocks Project

- › **Interactive community events:** Organize events that combine fun and education, such as park days or green festivals, to raise awareness about urban cooling strategies and encourage participation.

Case 6: Molenwaterpark

- › **Feedback Loops:** Develop feedback mechanisms such as surveys, suggestion boxes, or online forms to continuously gather input on the project's progress and effectiveness, adjusting as needed to community feedback.

Refer to Case 1 Superblocks Project, Case 3 Phoenix Cool Corridors Program, Case 7: Molenwaterpark

- › **Community ambassadors:** Identify and train local ambassadors to act as liaisons between the project team and the community, ensuring consistent and culturally relevant communication.

Refer to Case 5: PROSUD



CHAPTER 5: EMPOWERMENT TOOLS

5.5 Monitoring and Evaluation Tools

These tools enable communities to track the progress and impact of implemented heat stress interventions, encouraging accountability and ongoing engagement.

- › **Community-led Evaluation:** Set up community-based monitoring activities, such as resident-led surveys or environmental monitoring stations, to assess local temperatures, shade coverage, and intervention success.

Case 3 Phoenix Cool Corridors Program

- › **Progress Tracking Dashboards:** Use public dashboards to share real-time data and milestones achieved in cooling initiatives, making the project's impact visible and accessible to all stakeholders.

Case 2 Cooling Singapore Initiative

- › **Feedback and Reflection Sessions:** Hold periodic meetings to discuss progress, challenges, and improvements, allowing participants to reflect on what has been effective and where adjustments may be necessary.

Refer to Case 1 Superblocks Project, Case 3 Phoenix Cool Corridors Program, Case 7: Molenwaterpark

5.6 Tools for Sustainable Action and Long-term Engagement

Ensure long-term empowerment by providing tools that help communities sustain the efforts beyond the project's official duration.

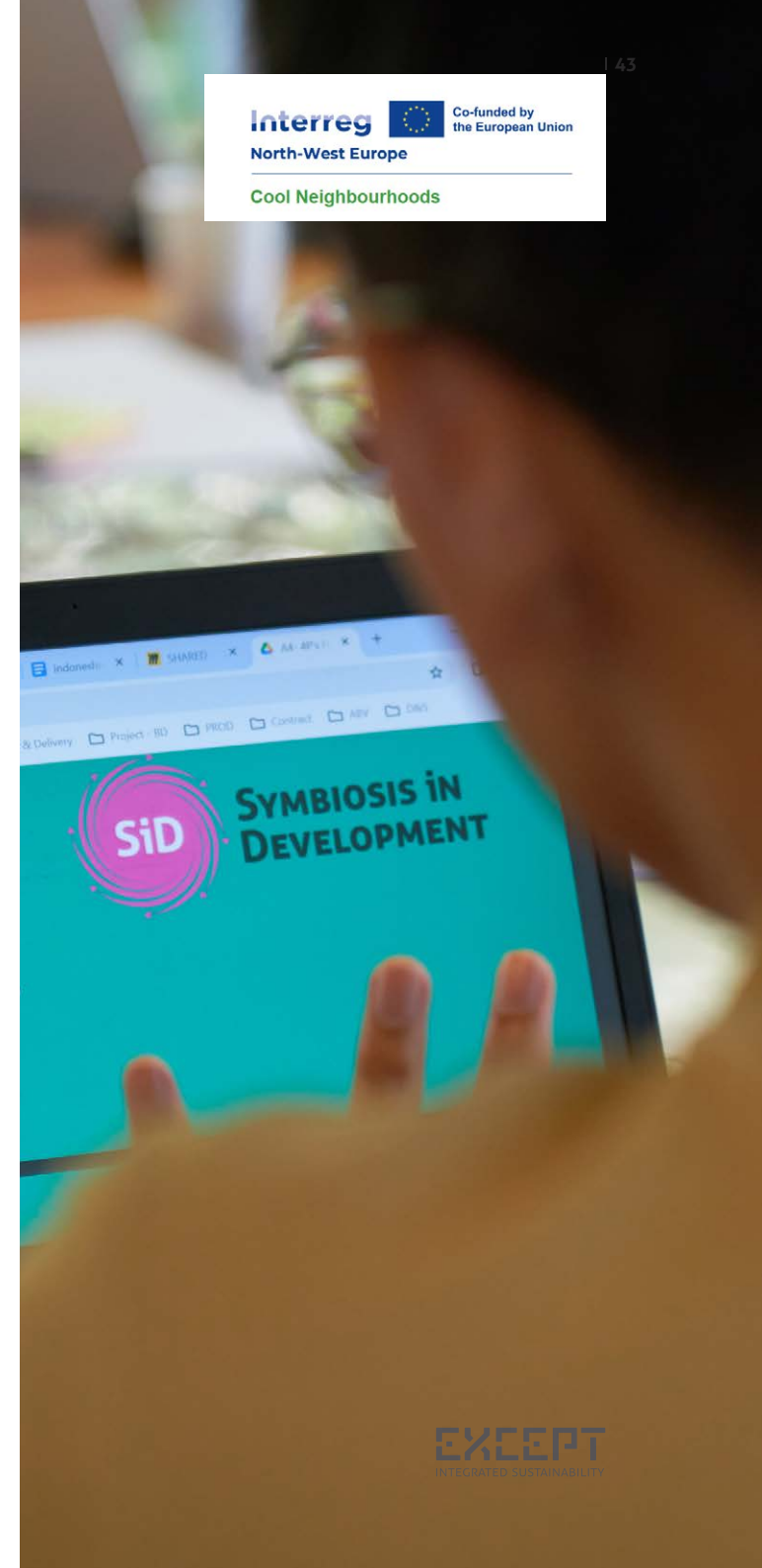
- › **Resource Hubs:** Establish community resource centers or online portals with toolkits, guides, and contacts that can support future heat stress projects.

Case 2 Cooling Singapore Initiative

- › **Partnerships for Continuous Support:** Facilitate partnerships with local organizations, schools, or environmental groups to continue promoting urban cooling strategies and support new initiatives.

Case 4 OASIS - Schoolyards

- › **Funding and Grant Resources:** Share information on potential funding sources, grants, or sponsorships, including governmental and municipal subsidies, that communities can apply for to support ongoing or future cooling interventions.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

This chapter presents case studies of projects that have successfully engaged communities in addressing urban heat and climate challenges. These cases were selected for their participatory processes and practical tools, offering insights into community-driven solutions.

The examples fall into two categories:

- › **International cases** – Well-recognized projects from Europe and beyond, showcasing effective participation methods and empowerment strategies applicable to various urban contexts.
- › **Cool Neighbourhoods pilot partner cases** – Examples from within the Cool Neighbourhoods project, providing opportunities for knowledge exchange and shared learning among partners.

6.1 SUCCESS STORIES

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6.1.1 CASE 1: SUPERBLOCKS PROJECT

6.1.2 CASE 2: COOLING SINGAPORE INITIATIVE

6.1.3 CASE 3: PHOENIX COOL CORRIDORS PROGRAM

6.1.3 CASE 4: OASIS - SCHOOLYARDS

6.1.5 CASE 5: SCHIEBROEK ZUID ROTTERDAM

6.2 PRACTICAL CASE STUDIES FROM PILOT PARTNERS

56

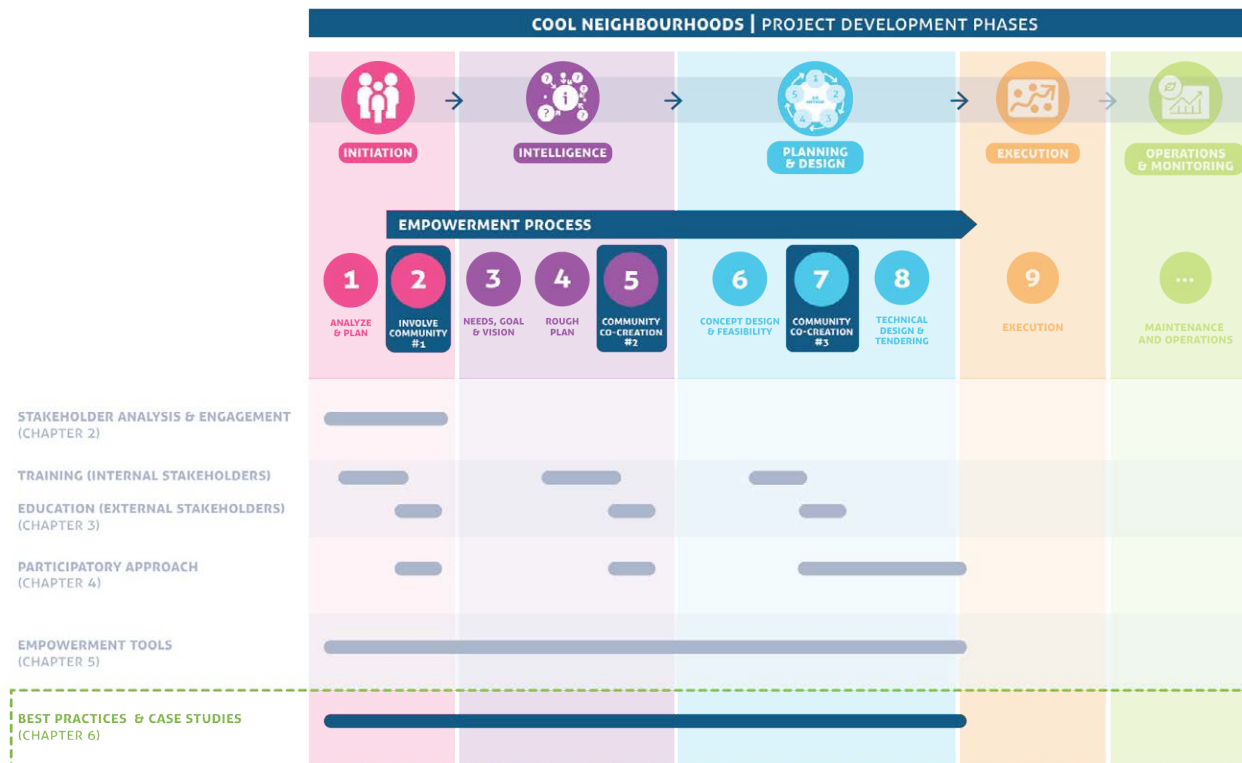
6.2.1 CASE 6: PRO-SUD

6.2.2. CASE 7: MOLENWATERPARK

6.2.3 CASE 8: PORTEUR DE PAROLE - "SPOKESPERSON FOR THE PEOPLE"

6.2.4 CASE 9: BATISTIN GARDEN

6.2.5 CASE 10: GREENING PERMIT



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1 Success Stories

The following success stories highlight inspiring examples of projects addressing climate change and urban heat effects through effective empowerment and community engagement.

Demonstrating how communities and partners have fostered participation, built local ownership, and overcome challenges, these examples offer practical insights and strategies that strengthen resilience. Together, they showcase innovative approaches that can inspire similar efforts in tackling climate challenges and creating cooler, more livable urban environments.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.1 CASE 1: SUPERBLOCKS PROJECT

Location: Barcelona, Spain

Project size: City-wide (700 ha), initially piloted in select neighborhoods

Development year: Launched in 2016; ongoing expansion

Budget: Estimated €10 million (initial phases)

Project summary

Barcelona's Superblocks project is a pioneering example of urban redesign aimed at reducing emissions, urban heat, and enhancing green spaces. Through the creation of pedestrian-friendly zones, traffic was limited, transforming city blocks into vibrant community spaces. Public participation was integral, with residents engaged through workshops and consultations that shaped the project's design. This inclusive process cultivated local ownership and significantly improved the urban environment by lowering noise, heat, and air pollution, while cherishing community interaction. This project transforms the city center into greener, less congested, and more bike-friendly areas. By limiting car traffic and creating pedestrian zones, the project aims to improve air quality and reduce urban heat.

Methods/Technologies

Traffic rerouting, pedestrian-centric street design, expansion of green spaces, and public workshops.

Empowerment and public participation

Barcelona's Office for Urban Ecology engages stakeholders in the planning of Superblocks to create pedestrian-friendly spaces. The project prioritizes community involvement through workshops, public meetings, and feedback channels. Utilizing tactical urbanism, residents can experience temporary changes firsthand and share their insights, collaborating with city planners to shape the project. This participatory approach promotes a sense of ownership, builds trust, and strengthens public support.



References: [Link1](#), [Link2](#), [Link3](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

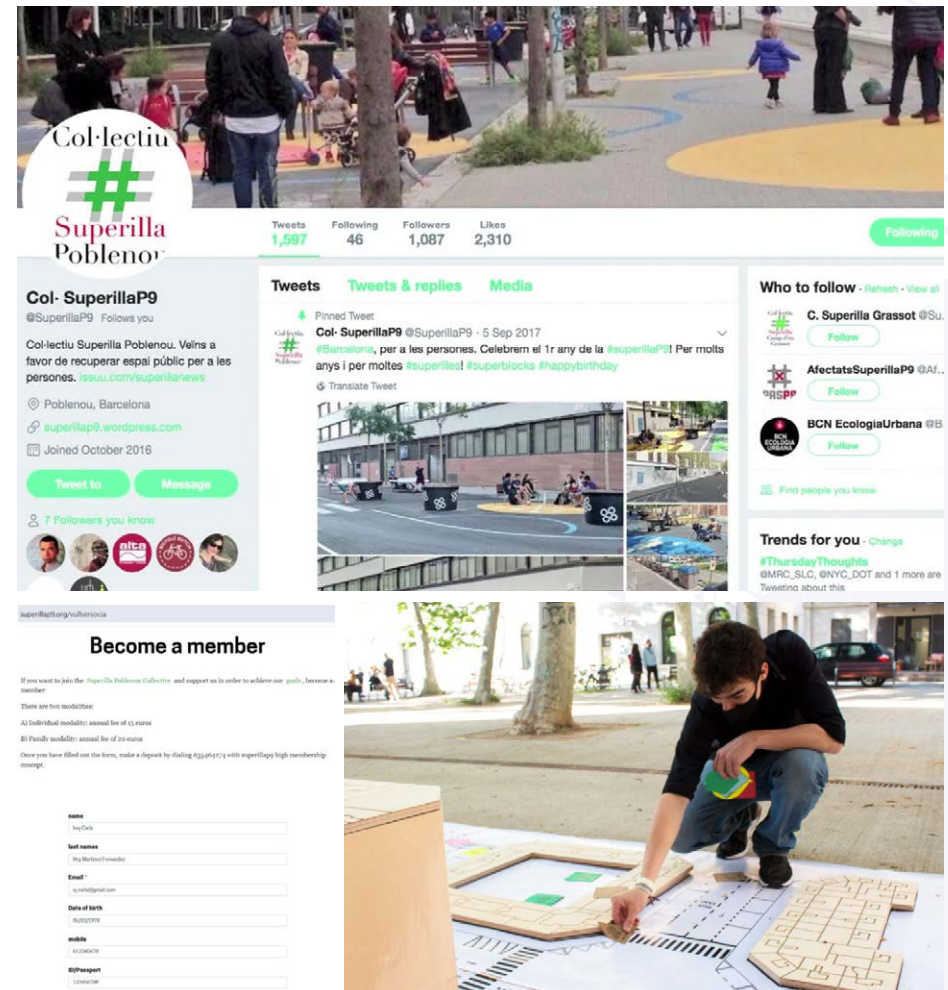
6.1.1 CASE 1: SUPERBLOCKS PROJECT

Furthermore, TheSuperilla Poblenou Collectivewas formed during the initial implementation of the Poblenou Superblockwith the common goal of actively participating in this co-creation project based on our needs and desires as users. The first thing the members did was meet in the street (Almogàvers/Ciudad de Granada) and imagine how they would like the Superblock to be. This gathering marked the beginning of their mission: to occupy public space and promote community life. Members partake in constant brainstorming through regular roundtables and workshops. Locals can join the team through online platform ([Website 1](#), [website 2](#)) and take part in decision-making process. Key points of this group:

- **Formation and purpose:** The collective is a diverse group aiming to co-create a public space that reflects the needs and desires of its users. They advocate for reclaiming areas previously dominated by cars to promote a healthier, more social city.
- **Inclusivity:** The group welcomes individuals of various ages and backgrounds, united by a shared vision for improving urban living conditions.
- **Goals:** They focus on positively contributing proposals to enhance the superblock, ensuring it becomes a space that feels communal and accessible to all.
- **Achieved milestones:**
 - > The environment has gradually transformed, replacing cold asphalt with friendly spaces, colors, furniture, and greenery, encouraging a fairer balance between pedestrians, cyclists, and drivers.
 - > Stakeholders influenced key changes, such as advocating for the urgent clean-up and redesign of Plaça Dolors Piera to center values of public housing, sustainability, and community.
 - > A new sense of belonging emerged, with residents actively occupying former car spaces, exemplified by children playing on Sancho d'Àvila Street.
 - > The initiative has inspired similar movements across the city, spreading awareness of the benefits of Superblocks in areas such as Eixample.

Environmental outcome/impact

Decreased traffic emissions, reduced noise, lowered temperatures, improved air quality, and expanded public space by 25%.



References: [Link1](#), [Link2](#), [Link3](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.2 CASE 2: COOLING SINGAPORE INITIATIVE

Location: Singapore

Project size: City-wide, with targeted interventions in high-density urban areas

Development year: Initiated in 2017; continuous implementation

Budget: Government and research grants supporting multimillion-dollar investments

Project summary

The Cooling Singapore Initiative was developed to combat the urban heat island effect by employing a multi-faceted approach, integrating green infrastructure, advanced modeling, and innovative cooling strategies. The project works towards creating a liveable urban environment despite tropical heat. This project started with Cooling Singapore 1.0, which established UHI metrics and mitigation measures, followed by Cooling Singapore 1.5, which developed cooling strategies and climate-responsive guidelines. Cooling Singapore 2.0 aims to build on these foundations.

Methods/Technologies

The project utilizes green infrastructure like green roofs and walls, urban geometry strategies such as optimizing building height variation and breezeways, and water features like ponds and wetlands as cooling sinks. It also incorporates cool materials, shading structures, and promotes public transport and electric vehicles to reduce heat emissions. Measures are included to enhance energy efficiency in cooling systems, with examples like district cooling.

Empowerment and public participation

The Cooling Singapore project used a mix of workshops, surveys, and field campaigns to involve residents in designing climate resilience strategies and UHI mitigation. Through an Engagement Campaign, residents shared their views on climate issues, which directly informed policy and planning research. Field Campaigns collected insights via surveys and focus groups. The main questions asked from the population were:



References: [Link1](#), [Link2](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.2 CASE 2: COOLING SINGAPORE INITIATIVE

- › What mitigation strategies would you like to see in your neighborhood?
- › How much tax money would you allocate to see these strategies implemented?
- › Where in your neighborhood would you like these strategies implemented?
- › What outdoor activities are easier to do now that these strategies are in place?

These responses shaped a clearer picture of residents' preferences and priorities. In collaboration with the NGO Participate in Design (PiD), Cooling Singapore held workshops in Housing and Development Board (HDB) estates to translate community feedback into viable solutions. By understanding public willingness to support and fund specific strategies, the project developed informed recommendations, aligning local climate resilience efforts with community interests and needs.

Environmental outcome/impact

Lowered ambient urban temperatures, reduced energy consumption for cooling, improved urban air quality, and enhanced the livability of public spaces.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.3 CASE 3: PHOENIX COOL CORRIDORS PROGRAM

Location: Phoenix, Arizona, USA

Project size: Targeted urban corridors across the city

Development year: Initiated in 2019; expanding

Budget: Funded through city budgets and public-private partnerships, approximately \$5 million initially

Project summary

The Cool Corridors are one-quarter to half-mile segments, walkways or trails adjacent to an arterial street designed to keep pedestrians, bicyclists and transit users safe and tackle extreme heat in Phoenix by creating shaded walkways, increasing vegetation in strategic urban corridors and cool pavement coating. Moreover, Cool pavements can ultimately reduce long-term road maintenance needs and costs, which could yield substantive economic and environmental benefits. By the end of 2023, over 70km (670,000m²) of pavement has been built and it is expanding.

Methods/Technologies

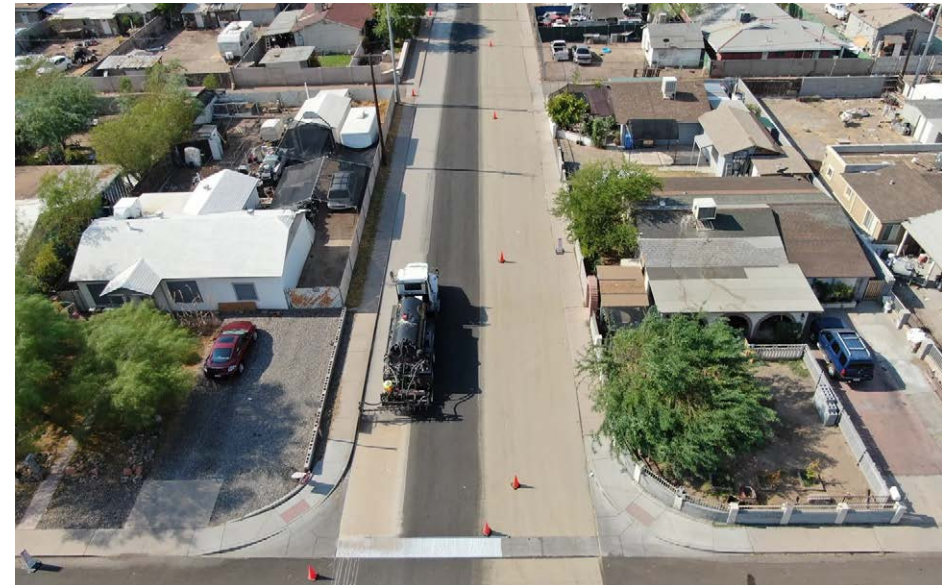
Tree planting, installation of shade structures, use of heat-reflective pavements (water-based treatment applied over existing asphalt; coating contains asphalt, water, soap, mineral fillers, polymers, and recycled materials), and community-focused design

Empowerment and public participation

Local neighborhoods participated in planning by identifying key areas needing shade and inputting on tree selection and corridor routes. The city conducted public meetings and worked closely with community leaders to ensure the project met residents' needs.

Stakeholders involved:

- › **City of Phoenix:** The Street Transportation Department oversees the implementation of the Cool Corridors Program, which aims to plant trees and create shaded areas along key pedestrian routes.



References: [Link1](#), [Link2](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.3 CASE 3: PHOENIX COOL CORRIDORS PROGRAM

- › **Arizona State University:** Collaborates in research and assessment to determine optimal tree planting locations based on environmental data.
- › **Community-based organizations:** Local organizations such as the Phoenix Revitalization Corporation, RAILMesa, and Puente Movement are engaged in participatory planning processes to ensure community needs are met.
- › **Residents:** Local community members play a crucial role in identifying their needs and preferences regarding heat mitigation strategies.

Engagement methods:

- › **Participatory workshops:** The program includes multiple workshops where residents can voice their concerns, share ideas, and collaborate on solutions. These workshops foster a sense of ownership and agency among participants
- › **Data-driven decision making:** The city employs a ranking system based on four criteria—temperature, vegetation index, public health data, and community input—to prioritize areas for tree planting
- › **Community mapping:** Residents are involved in mapping out existing cooling assets and identifying "hot spots" where intervention is needed most
- › **Feedback loops:** Continuous engagement with community members allows for iterative feedback on proposed projects, ensuring that solutions are culturally relevant and contextually appropriate.
- › **Community engagement:** Volunteers from various backgrounds, including local residents and organizations, participate in tree planting events. These initiatives are designed to promote community spirit, a sense of ownership, and to encourage residents to take an active role in improving their environment.
- › **Training programs:** Organizations like the Arizona Sustainability Alliance train volunteers to become "Tree Stewards," equipping them with knowledge on tree care and maintenance.

Environmental outcome/impact

Decreased surface temperatures up to 6°C, improved pedestrian safety and comfort, enhanced neighborhood appeal, and promoted environmental awareness among residents



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.3 CASE 4: OASIS - SCHOOLYARDS

Location: Paris, France

Project size: 73 Hectares (25 schools)

Development year: 2022 - Ongoing

Budget: €9 million

Project summary

The Paris Oasis Schoolyard Project transforms schoolyards into eco-friendly, climate-resilient spaces by replacing asphalt with permeable surfaces, adding greenery, and installing water features. It reduces urban heat, boosts biodiversity, and serves as a shared public space, fostering environmental awareness and community well-being.

Methods/Technologies

- › **Soil management:** Focus on permeable surfaces for rainwater management and reduced heat. Some courtyards have over 40% permeable areas.
- › **Stormwater management:** Wastewater is redirected to planted areas, and rainwater is stored for irrigation.
- › **Vegetation and shade:** Shade from trees (up to 10 per yard) and regional plants creates cooling layers and natural paths.
- › **Sustainable ground materials:** Black asphalt is replaced with permeable concrete and light-colored asphalt to reduce heat.

Empowerment and public participation

The Paris OASIS Schoolyard Project emphasizes empowerment and public participation through a co-design process involving students, teachers, parents, and local communities.

- › **Student engagement:** Students actively participate in co-designing their schoolyards, helping shape outdoor spaces to meet their needs. The CM1 B class, for example, engaged in workshops led by CAUE (Conseil d'architecture, d'urbanisme et de l'environnement) in 2019 to learn about climate change and design their future playground.



References: [Link1](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.3 CASE 4: OASIS - SCHOOLYARDS

- › **Community involvement:** Local residents participate in a three-step engagement process, contributing to decisions on the use of schoolyards after school hours, fostering a sense of ownership and community.
- › **Co-design workshops:** Students, teachers, and staff collaborate to align the schoolyard designs with their collective needs and aspirations, ensuring the spaces are functional and meaningful.
- › **Cross-department collaboration:** Various City of Paris departments (health, environment, education) work together to integrate diverse expertise and perspectives into the project's development.
- › **Awareness campaigns:** Workshops about climate change and urban resilience engage both children and adults, promoting environmental education and sustainable practices in the community.
- › **Maintenance and management plans:** Schools receive guides and plans to maintain the transformed spaces, empowering them to manage the areas sustainably and continue community involvement over time.

Environmental outcome/impact

- › **Temperature reduction:** Surface temperature reductions of up to 3°C during heatwaves have been recorded in transformed schoolyards.
- › **Stormwater management:** Improved water infiltration and reduced flood risks in urban areas.
- › **Biodiversity:** Increased urban green spaces contribute to local flora and fauna habitats.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.5 CASE 5: SCHIEBROEK ZUID ROTTERDAM

Location: Rotterdam, Netherlands

Project size: Social housing neighbourhood (Schiebroek-Zuid) - Over 17000 inhabitants and 7,465 houses in 2021

Development year: 2010 - Ongoing

Budget: Redirected the standard maintenance and renovation budget for the area, over 10 years time

Project summary

Sustainable Schiebroek-Zuid is a pioneering social housing redevelopment project that transforms a post-war neighborhood into a self-sufficient, resilient, and sustainable community. The project integrates adaptive urban planning, socio-economic programs, and proven energy and resource technologies to create a closed-loop urban metabolism. It avoids demolition, preserving existing buildings while introducing local food production, renewable energy, and community-driven economic models.

Methods/Technologies

- › **Soil management:** Focus on permeable surfaces for rainwater management and reduced heat. Some courtyards have over 40% permeable areas.
- › **Closed-loop urban metabolism:** The neighborhood autonomously supplies its energy, water, and food needs while managing waste on-site.
- › **Renewable energy solutions:** Utilizes biogas-fueled power plants, solar panels (2600m²), and heat capture from rooftop greenhouses to generate electricity and heating.
- › **Urban agriculture:** Rooftop and ground-level greenhouses provide food, capture heat, and create recreational spaces, contributing to 70% of the community's food supply.
- › **Stormwater and wastewater management:** Filtration and purification systems recycle greywater and blackwater, reducing reliance on external water sources
- › **Edible landscaping:** Formerly empty lawns are converted into productive gardens, enhancing biodiversity and community engagement.
- › **Flexible redevelopment strategy:** A 20-year roadmap focuses on performance-based goals rather than rigid structural plans, ensuring adaptability.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.1.5 CASE 5: SCHIEBROEK ZUID ROTTERDAM

Empowerment and public participation

- › **Community-driven design:** Hundreds of residents were involved in shaping the neighborhood's transformation through workshops and consultations.
- › **Social and economic development:** The project includes social programs for target groups such as the elderly, children, and entrepreneurs.
- › **Local currency:** Encourages local trade, incentivizes sustainability efforts, and strengthens community ties.
- › **Flexible community spaces:** Multipurpose ateliers serve as workshops, offices, kitchens, and storefronts, fostering local entrepreneurship.

Environmental outcome/impact

- › **Energy independence:** The neighborhood generates its own electricity and heat, reducing reliance on external grids.
- › **Water self-sufficiency:** Advanced filtration systems recycle wastewater and rainwater for irrigation and daily use.
- › **Biodiversity and greenery:** Urban farming and edible landscapes enhance ecological resilience and connect residents to nature.
- › **Sustainable urban renewal model:** Demonstrates how social housing can transition towards sustainability without demolition, preserving social and material value.



References: [Source](#)

CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2 Practical Case Studies from Pilot Partners

Success stories can also be found close to home, within our pilot partners. The following case studies highlight achievements and practical solutions that kept projects moving forward. They show how to encourage participation and maintain engagement while building resilience and fostering local ownership despite challenges that inevitably arise along the way.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.1 CASE 6: PRO-SUD

Location: Lycée Guillaume Kroll, Esch sur, Alzette Luxembourg

Project size: Small

Development year: 2023

Budget: 10.000 Euro

Project summary

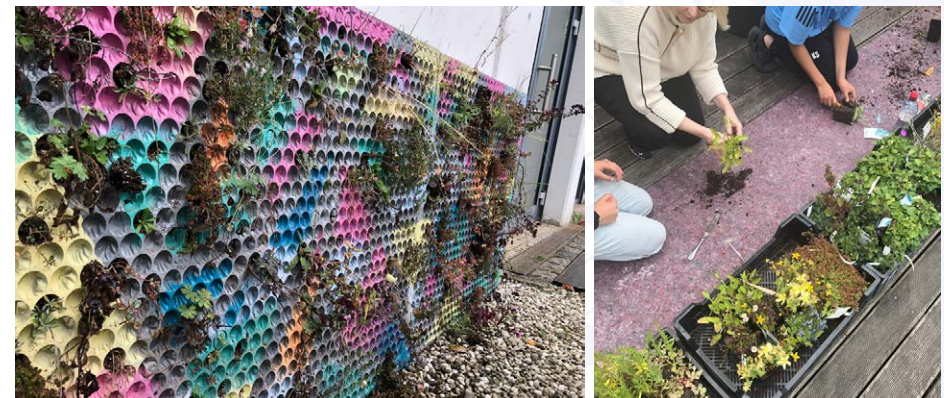
MiNELL, the nature lab project from the Minett UNESCO Biosphere collaborated with Lycée Guillaume Kroll to turn an existing lawn into a wildflower meadow and install a green wall, engaging students in hands-on activities to enhance biodiversity on their school's grounds. Through workshops, they learnt about plant diversity and urban ecology, and created pollinator-friendly spaces with an artistic touch. They also learned how to document and share their experience and learnings using a diary as well as graphical and communication tools.

Challenges

- › Scheduling issues and last-minute program changes disrupted planning and activities.
- › Shared classroom spaces created distractions during sessions.
- › Limited time for communication campaigns, such as reducing Riso printing sessions.

Solutions

- › Flexible collaboration and proactive adjustments by the project team ensured goals were met.
- › Open debriefs with school leadership addressed concerns and identified areas for improvement.
- › Effective teamwork with technical staff and gardeners kept the project on track.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.1 CASE 6: PRO-SUD

Empowerment and public participation

Students, teachers, and external stakeholders actively engaged together in a learning and participatory process, whereby the learnings about biodiversity and ecological design were implemented on site to contribute to a more biodiversity-friendly school. A combination of structured workshops, collaborative activities, and creative expression ensured full involvement of the school community.

› Interactive exploration:

- › Students explored biodiversity in a nature reserve and around their school and were introduced to biodiversity-recording tools like iNaturalist.

› Design and construction:

- › Students played an important part in preparing the soil for sowing (digging and raking), and then sowed the seeds of the wildflower meadow.
- › Students played a central role in planting and decorating the green wall.
- › Collaborative sessions allowed them to contribute creative ideas for the wall's aesthetics and composition of pollinator-friendly plants.
- › Hands-on activities, such as spray-painting and piercing plantation holes in the concrete structure, as well as planting, gave students direct ownership of the project.

› Multidisciplinary team support:

- › A team of experts (a group teacher, a biologist, and a graphic designer) guided the process.
- › The team integrated scientific, educational, and artistic approaches, making the project accessible and inclusive for students of varying backgrounds and knowledge levels

› Educational workshops:

- › Students were invited to observe the diversity of plants' shapes and colours and learned to recognize certain plant and pollinating insect families. They also learnt of their ecological importance.
- › Workshops combined theory with practical activities, resulting in a holistic learning experience.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.1 CASE 6: PRO-SUD

› Communication and advocacy:

- › Participants developed educational materials, such as fanzines and posters, to share the project's goals and outcomes with the broader community.
- › Brainstorming sessions improved their communication skills and empowered them to promote sustainability in their school and beyond.

Methods/Technologies

- › Setting up and planting a green wall system
- › Wildflower meadow sowing
- › Use of tools like iNaturalist for biodiversity observation and documentation
- › Workshops on pollinator-friendly planting, plant family diversity, and green wall irrigation systems
- › Creation of fanzines and posters to communicate project outcomes
- › Multidisciplinary approach combining science, education, and graphic design

Environmental outcome/impact

- › **Immediate impact:** A functional wildflower meadow and green wall locally improve the school environment both aesthetically and ecologically. More broadly, they contribute to increased biodiversity in this urbanized area.
- › **Future impact:** The wildflower meadow and green wall will remain, continuously providing food and shelter for pollinators through ecological maintenance practices agreed upon by the school at the project's end. They will also continue to help promote ecological awareness among students and staff.
- › **Educational impact:** Pre- and post-project questionnaires showed improved knowledge of biodiversity and sustainability among participants.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.2. CASE 7: MOLENWATERPARK

Location: Middelburg, Netherlands

Project size: City park and surrounding urban areas

Development year: Completed in 2021

Budget: Funded through municipal budgets and environmental grants, approximately €2 million

Project summary

The Molenwaterpark project revitalizes a public space in Middelburg, integrating sustainable water management systems with green infrastructure to address urban heat island effects and enhance climate resilience. The park features a series of innovative solutions such as green roofs, rainwater harvesting, and permeable pavements, which reduce surface temperatures, manage stormwater, and support biodiversity. The project demonstrates how urban green spaces can simultaneously address climate change, improve public health, and foster community engagement.

Challenges

- › Limited community awareness and engagement at the start of the project.
- › Balancing ecological goals with recreational needs and urban constraints.
- › Managing water flow and preventing flooding during heavy rains.

Solutions

- › Conducted workshops and outreach campaigns to raise awareness and gather input from the local community.
- › Designed multifunctional spaces that combine biodiversity enhancement with public use.
- › Implemented innovative water management techniques, such as permeable surfaces and rain gardens, to address flooding risks.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.2. CASE 7: MOLENWATERPARK

Empowerment and public participation

- › **Community-driven design:** Local residents actively participated in workshops and planning sessions, voicing their preferences for park features such as tree species and shading solutions.
- › **Stakeholders involved:**
 - › **City of Middelburg:** Responsible for the park's overall design and funding, with a focus on integrating sustainability into urban planning.
 - › **Dutch Environmental Organization:** Partnered in environmental assessment and provided expertise on climate-resilient urban design.
 - › **Local community groups:** Local organizations were engaged in planning and project delivery, ensuring that the park reflects community needs and aspirations.
 - › **Residents:** Locals were invited to take part in tree planting, park cleanups, and the ongoing maintenance of the green infrastructure systems.
- › **Engagement methods:**
 - › **Workshops and focus groups:** Residents participated in design workshops, offering feedback and helping select trees and features for the park.
 - › **Community mapping:** Local residents mapped areas of the city most affected by urban heat, guiding the park's cooling strategies.
 - › **Ongoing feedback:** Regular community meetings and online platforms were set up for continued input during the construction phase and post-completion.
 - › **Volunteer initiatives:** Local community members engaged in tree planting and park maintenance events, creating a sense of ownership and responsibility.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

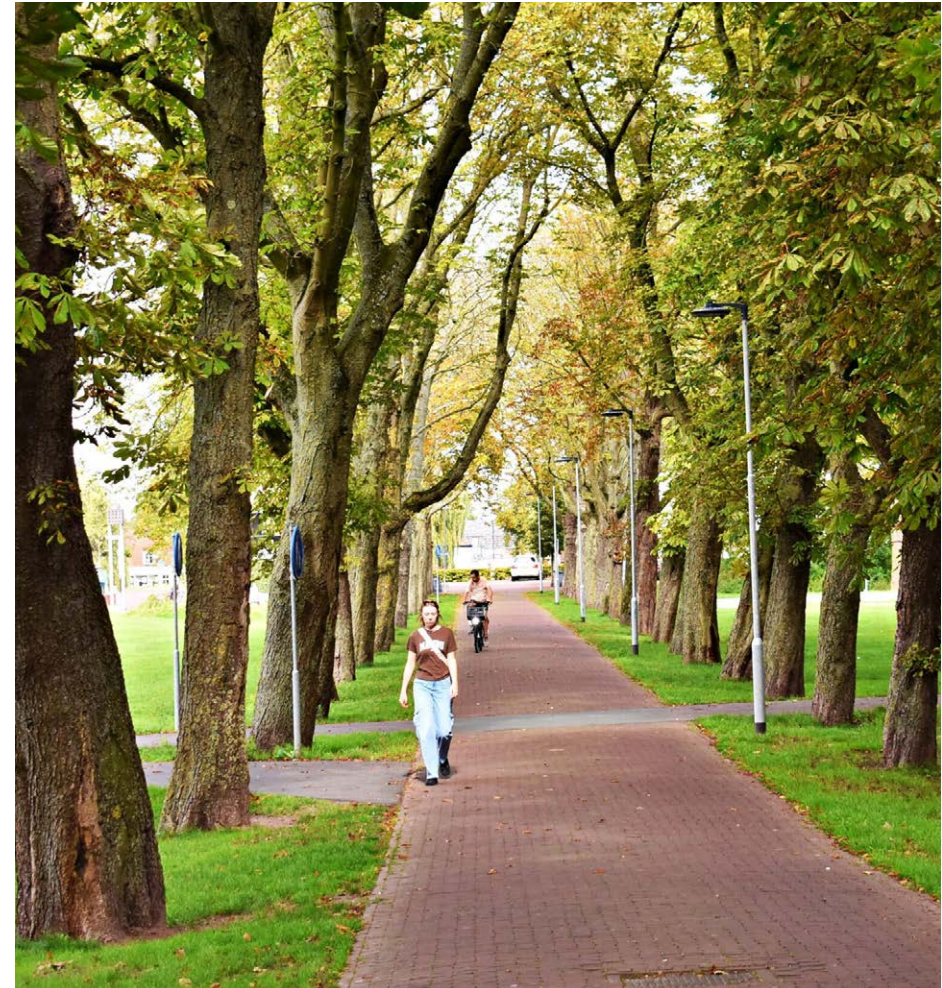
6.2.2. CASE 7: MOLENWATERPARK

Methods/Technologies

- › **Green infrastructure:** Incorporation of green roofs, rain gardens, and permeable pavements to improve stormwater management and reduce heat absorption.
- › **Sustainable water management systems:** Utilization of rainwater harvesting and bio-retention systems to manage urban runoff.
- › **Urban cooling techniques:** Addition of shaded seating areas, tree planting, and reflective surfaces to lower local temperatures.
- › **Biodiversity enhancement:** The park is designed to promote biodiversity with native plant species and wildlife habitats, enhancing both ecological and human wellbeing.

Environmental outcome/impact

- › **Temperature reduction:** The park has successfully reduced surface temperatures by up to 4°C in adjacent urban areas, mitigating the urban heat island effect.
- › **Enhanced biodiversity:** The introduction of diverse plant species and habitats has improved local biodiversity, supporting pollinators and wildlife.
- › **Improved water management:** Rainwater harvesting and permeable pavements have helped reduce stormwater runoff by 25%, improving local flood resilience.
- › **Increased public engagement:** The project has raised awareness about climate change and urban heat in the community, encouraging sustainable practices among residents.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.3 CASE 8: PORTEUR DE PAROLE - "SPOKESPERSON FOR THE PEOPLE"

Location: Saint-Omer, France

Project size: Public engagement initiative in urban areas

Development year: Ongoing

Budget: Not specified

Project summary

The "Spokesperson for the People" initiative is a community engagement tool designed to connect with local residents in public spaces. By engaging in discussions and gathering opinions, the project creates opportunities for social dialogue and community-driven change. The initiative relies on designated spokespersons who facilitate conversations, collect insights, and publicly display key ideas to encourage transparency and participation.

Challenges

- › Organizing discussion forums at neighborhood festivals to increase participation.
- › Assigning clear roles to spokespersons, including facilitators, scribes, and speakers, to structure engagement efforts.
- › Using a visible public display of key ideas to ensure transparency and encourage further discussion.

Solutions

- › Flexible collaboration and proactive adjustments by the project team ensured goals were met.
- › Open debriefs with school leadership addressed concerns and identified areas for improvement.
- › Effective teamwork with technical staff and gardeners kept the project on track.

Empowerment and public participation

- › **Community-driven engagement:**
 - › Residents are invited to express opinions through structured yet open-ended conversations.
 - › Discussions are documented, with key takeaways displayed in public spaces for collective reflection.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.3 CASE 8: PORTEUR DE PAROLE - "SPOKESPERSON FOR THE PEOPLE"

Empowerment and public participation

- › **Stakeholders involved:**
 - › **Local social centers:** Partnered with the initiative to connect with the community.
 - › **Youth service cooperative:** Involved young people in discussions and organization.
 - › **Residents:** Encouraged to participate in dialogue and express their perspectives.
- › **Engagement methods:**
 - › **One-on-one conversations:** Spokespersons facilitate individual exchanges, allowing in-depth discussions.
 - › **Public forums:** Events are organized at local festivals to ensure resident participation.
 - › **Community displays:** Insights gathered are written and showcased in visible locations.

Methods/Technologies

- › **Face-to-face public engagement:** Direct interaction with residents in open spaces.
- › **Public idea boards:** Displaying collected opinions in shared spaces to stimulate dialogue.
- › **Community outreach events:** Hosting interactive gatherings to enhance participation.

Environmental outcome/impact

- › The project has encouraged **multi-faceted community voices** to emerge through individual conversations.
- › It serves as a **starting point for broader citizen involvement**, with some participants signing up for continued engagement.
- › Testing questions in advance has proven crucial to ensure their relevance and impact on local communities.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.4 CASE 9: BATISTIN GARDEN

Location: Saint-Omer, France

Project size: Community vegetable garden within an urban district

Development year: Not specified

Budget: Not specified

Project summary

The Batistin Garden project transforms an unused urban space into a vegetable garden, aiming to enhance the local living environment while engaging residents in the planning, construction, and maintenance phases. The initiative is designed to improve community well-being and foster a sense of ownership among local residents, operating in parallel with the broader restructuring of the district.

Challenges

- › Initial difficulties in water management and tool storage.
- › Struggles to maintain collective involvement for long-term upkeep.

Solutions

- › Water supply sourced directly from the river through a partnership with a social landlord.
- › Community-led approach to maintaining and sustaining the garden.

Empowerment and public participation

- › **Community-driven engagement:** Residents actively participated in workshops to shape the garden's development, addressing concerns such as damage prevention and the integration of nearby play areas.
- › **Stakeholders involved:**
 - › **Local residents:** Engaged in planning, construction, and maintenance.
 - › **Municipality and urban planners:** Supported mobilization efforts for the project.
 - › **Social landlord:** Provided premises and facilitated water access.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.4 CASE 9: BATISTIN GARDEN

› Engagement methods:

- › Workshops to gather input on garden design and operations.
- › Hands-on involvement in constructing garden beds to strengthen community ownership.

Methods/Technologies

- › **Urban greening:** Conversion of unused land into a productive green space.
- › **Community-led maintenance:** Reliance on volunteer involvement for upkeep.
- › **Water management:** Direct use of river water for irrigation.

Environmental outcome/impact

- › Enhanced community pride and improved neighborhood aesthetics.
- › Strengthened social ties through collective participation.
- › Challenges in sustaining long-term volunteer engagement and structuring operational costs.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.5 CASE 10: GREENING PERMIT

Location: Saint-Omer, France

Project size: Urban public spaces within the town

Development year: 2015 - Ongoing

Budget: €49000 per year

Project summary

The Greening Permit project in Saint-Omer aims to enhance the quality of life and integrate nature into the urban environment by allowing residents to create and maintain green spaces in public areas. This initiative addresses the town's limited green spaces by encouraging the planting of ornamental and vegetable plants in public spaces such as tree pits, building bases, and planters. The project promotes community engagement and sustainable urban living.

Challenges

- › Limited green space in a densely built-up urban area.
- › Ensuring long-term maintenance and sustainability of the green spaces.
- › Balancing urban heritage preservation with the introduction of new greenery.

Solutions

- › Issuing greening permits that allow residents to temporarily use public spaces for gardening.
- › Promoting peer-to-peer exchanges and neighborhood councils to encourage community involvement.
- › Organizing "Greening permit" coffee meetings to facilitate communication between residents and the urban environment service.

Empowerment and public participation

- › **Community-driven initiatives:** Residents are empowered to create and maintain green spaces, fostering a sense of ownership and community spirit.



CHAPTER 6: BEST PRACTICES AND CASE STUDIES

6.2.5 CASE 10: GREENING PERMIT

- › **Stakeholders involved:**
 - › **Town of Saint-Omer:** Oversees the regulatory charter and monitors compliance.
 - › **Residents:** Actively participate in planting and maintaining green spaces
 - › **Neighborhood councils:** Facilitate discussions and promote the initiative within communities.
- › **Engagement methods:**
 - › Peer-to-peer exchanges and neighborhood councils for spontaneous promotion.
 - › Regular "Greening permit" coffee meetings for direct communication with the urban environment service.
 - › Tacit renewal of permits every 3 years to ensure ongoing participation.

Methods/Technologies

- › **Temporary use permits:** Residents are granted permits to use specific public spaces for gardening.
- › **Community gardening:** Encourages the planting of a variety of ornamental and vegetable plants in public areas.
- › **Regulatory charter:** Ensures that the greening activities comply with town regulations and maintain the urban aesthetic.

Environmental outcome/impact

- › **Increased green space:** Enhances the urban environment by introducing more greenery in a mineral-dominated town.
- › **Community engagement:** Strengthens community bonds through shared gardening activities and neighborhood involvement.
- › **Improved quality of life:** Provides residents with access to nature and gardening opportunities, contributing to mental and physical well-being.
- › **Sustainability:** Promotes the three dimensions of sustainability (social/health, environment, and economy) through community-driven green initiatives.

Le conseil municipal de Saint-Omer officialise le « permis de végétaliser » la ville !



References: [Source](#)

COOL NEIGHBOURHOODS

PART II | METHODOLOGY EMPOWERMENT SCHEMES

March, 2025



METHODOLOGY

EMPOWERMENT SCHEMES

INTRODUCTION

In Part I, we outlined the general empowerment process, providing a structured approach for community engagement for urban cooling.

Part II builds on this foundation, offering detailed methodologies tailored to different neighbourhood typologies identified within the *Cool Neighbourhoods* project.

The three typologies covered in this section include:

- › ***Inner City Neighbourhoods (Pilot areas: Wimereux, Goes, Middelburg)***
- › ***Deprived Areas (Pilot areas: Saint Omer, Middelburg)***
- › ***Green Hubs for the Area (Pilot areas: Goes, Antwerp, Differdange, Ettelbruck)***

This section provides practical guidance for each typology, identifying specific challenges, engagement strategies, and implementation tools.

This document is work in progress and will evolve. During Semester 7 of the Cool Neighbourhoods project in 2027, new insights from pilot projects will be incorporated to refine and strengthen these empowerment schemes.

METHODOLOGY EMPOWERMENT SCHEMES

Introduction

This part of the guidebook introduces the Methodology Empowerment Schemes tailored to three distinct neighbourhood typologies, as officially defined for the Cool Neighbourhoods project:

› Inner City Neighbourhoods (Type 1):

Densely built areas with little room for greening in the public realm, making cooperation with building owners apparent. Visitors are included as an additional target group.

› Deprived Areas (Type 2):

Neighbourhoods that are looking for solutions to activate and accommodate low income groups, overcome language barriers and involve social housing associations as target groups.

› "Green Hubs for the Area" (Type 3):

Areas where next to the residents, staff and students are involved in development and selection of cooling solutions for the neighbourhood and monitoring and measurements with sensors (citizen science).

While the empowerment schemes for all three typologies essentially follow the same core steps, each typology presents unique challenges that require tailored approaches.

The following sections of the guidebook detail the empowerment schemes for each typology, highlighting specific challenges and offering practical solutions to address them effectively.



METHODOLOGY EMPOWERMENT SCHEMES

Type I. Inner City Neighbourhoods

Within the Cool Neighbourhoods project, **Typology I pilot areas** are characterized by dense shopping districts and significant pedestrian traffic, often accompanied by car and bike flow-through in some cases. These areas are typically heavily paved, contributing to their urban density and limited green spaces.

Specific Challenges

1. Stakeholder Engagement

- › Engaging a diverse range of stakeholders and users including visitors.
- › Ensuring input from various user groups is inclusive and balanced.

2. Physical Space

- › Preserving historical buildings and protected cultural heritage.
- › Addressing constraints from complex underground infrastructure.
- › Adjusting a heavily paved, dense area to create space for shade and greenery

3. Program and Daily Usage

- › Managing delivery logistics restricted to specific times of day.
- › Managing circulation and parking flows for pedestrians and (slow) traffic.
- › Adapting spaces for periodic events and special occasions while maintaining regular functionality



METHODOLOGY EMPOWERMENT SCHEMES

Type I. Inner City Neighbourhoods

Tools and solutions to engage stakeholders on a daily use of the project.

Develop Communication Strategy:

- › Public engagement through newspapers, campaigns, and social media.
- › Digital Engagement: Create interactive platforms (websites, apps) for residents and visitors to propose improvements and vote on preferences.
- › Direct stakeholder engagement via invitation letters, emails, or door-to-door outreach.

Data Gathering:

- › Conduct surveys and organize public events to collect data.
- › Facilitate workshops and open consultations to gather resident and visitor input

Awareness Events:

- › Host periodic markets, street festivals, and cultural activities to highlight the benefits of combating heat stress.

Participatory Planning by co-creation workshops:

- › Organize participatory workshops and collective brainstorming sessions to develop tailored solutions.

Community Coordination via Tactical Urbanism:

- › Implement temporary initiatives such as pop-up plazas or green streets to test designs and gather feedback.

Feedback channels:

- › Use interactive systems like online platforms to collect feedback.
- › Monitor vegetation indices and local temperatures to assess the impact of interventions.



METHODOLOGY EMPOWERMENT SCHEMES

Type I. Inner City Neighbourhoods

Precedent cases :

Case 1: Superblocks Project

Case 2: Cooling Singapore Initiative

Cool Neighbourhood Pilot Zusterstraat - Goes

METHODOLOGY EMPOWERMENT SCHEMES

Type II. Deprived Areas

Typology II pilot areas within the Cool Neighbourhoods project are primarily residential neighborhoods. In one case, the area requires redesign and refurbishment, while in another, establishing strong communication channels with residents is essential to facilitate meaningful dialogue.

Specific Challenges

1. Stakeholder Engagement

- › Reaching the local residents due to diverse social demographics.
- › Dealing with different ownership models (private and social housing).
- › Including local community needs (consulting social welfare organisations).

2. Physical Space

- › Value the existing landscape elements by qualities and its potential
- › Connecting communities in public space
- › Show the unique values of the place/cummmunity to create a destination point.

3. Program and Daily Usage

- › Ensuring flexible spaces for community-driven activities and potential redevelopment.
- › Accommodating diverse daily routines while fostering a sense of community. maintaining regular functionality



METHODOLOGY EMPOWERMENT SCHEMES

Type II. Deprived Areas

Tools and solutions to engage stakeholders on a daily use of the project.

Develop Communication Strategy:

- › Tailor communication methods to match the community's social and cultural demographics.
- › Collaborate with social housing associations to map residents' specific needs.
- › Utilize multilingual materials to address language barriers and improve outreach

Data Gathering:

- › Consult social housing and social welfare organisations for local challenges

Educational Climate Awareness Programs:

- › Organize workshops to teach residents about urban cooling techniques.
- › Highlight simple, actionable steps residents can take to improve their environment.

Citizen Science for Urban Monitoring:

- › Equip stakeholders with simple tools (e.g., mobile apps or sensors) to gather data and share insights.

Participatory Planning by co-creation workshops:

- › Involve local community and social organizations to co-design interventions.
- › Host small-scale gatherings and informal dialogues to encourage trust and open communication.

Community-Centered Design iterations:

- › Incorporate feedback to adapt spaces for community-driven activities and daily routines.
- › Ensure designs are flexible to accommodate redevelopment opportunities.

Community-Based Maintenance Plan:

- › Develop a collaborative maintenance strategy with input from residents.
- › Identify and empower local champions ("local heroes") to oversee and maintain cooling interventions.

Feedback channels:

- › Monitoring vegetation indices, local temperatures, and health data.
- › Providing accessible channels for community input, such as suggestion boxes or mobile apps.

METHODOLOGY EMPOWERMENT SCHEMES

Type II. Deprived Areas

Precedent cases :

Case 3: Phoenix Cool Corridors Program

METHODOLOGY EMPOWERMENT SCHEMES

Type III. "Green Hubs for the Area"

Tools and solutions to engage stakeholders on a daily use of the project.

Develop Inclusive Communication Strategies:

- › Use newsletters, social media platforms, and community boards to engage and inform stakeholders.
- › Create specific outreach programs targeting schools, local businesses, and community groups.

Stakeholder Engagement for Urban Monitoring:

- › Establish partnerships with schools and universities for educational programs and climate monitoring activities.
- › Collaborate with students and schools to track urban climate metrics (e.g., temperatures, vegetation health).

Participatory Needs Assessment:

- › Conduct surveys and focus groups to understand stakeholder priorities and constraints.
- › Gather input on how green hubs can support daily routines and activities.

Participatory Planning by co-creation workshops:

- › Organize workshops involving all stakeholders to co-design tailored green hub solutions.
- › Encourage students, staff, and community members to contribute innovative ideas for multipurpose spaces.

Temporary Interventions (Tactical Urbanism):

- › Test designs with temporary installations like pop-up green spaces or shaded seating areas.
- › Use these interventions to collect real-time feedback from stakeholders.
- › Incorporate flexible elements such as movable seating, modular greenery, and adaptable infrastructure.

Community-Led Maintenance Plans:

- › Train and empower local stakeholders, such as students and community groups, to maintain green spaces.
- › Develop stewardship programs like "Green Ambassadors" to foster a sense of ownership.

Feedback channels:

- › Provide digital platforms or physical suggestion boxes for ongoing community input.
- › Regularly monitor and evaluate the performance of implemented solutions and adapt as needed.

Educational and Public Programs:

- › Host workshops, neighborhood walks, or public events to educate stakeholders about urban cooling and green infrastructure.
- › Integrate educational content into school curriculums to encourage long-term engagement.

METHODOLOGY EMPOWERMENT SCHEMES

Type III. "Green Hubs for the Area"

Precedent cases :

Case 4: OASIS - Schoolyards

Cool Neighbourhood Pilot Stadskantoor - Goes

APPENDIX 1

Multilingual Communication Example

Project Koele Buurt in Utrecht: An Example of Multilingual Communication

The Koele Buurt project in Utrecht showcases effective multilingual communication. The project focus is to create cooler, more livable neighborhoods by involving local residents.

Its [website](#) is available in three key languages spoken in the target areas: Dutch, Arabic, and Turkish. This approach ensures accessibility and inclusivity, allowing diverse community members to understand, engage with, and participate in the project.



Burada üst taraftaki çeviri eklentisine tıklayın Türkçe versiyon için
انقر على الإضافة الخاصة بالترجمة هنا في الأعلى للنسخة العربية

In de zomer kan het in de stad Utrecht behoorlijk warm worden. Vooral op plekken met veel steen en weinig bomen en planten. Groen helpt met verkoelen en stenen houden warmte vast. Samen met bewoners gaan we in de zomers van 2024 en 2025 onderzoeken hoe warm het wordt in hun wijk. En we gaan samen werken aan manieren om de wijken koel en gezond te houden.

APPENDIX 2

Stakeholder analysis templates

Stakeholder Category	Roles & Responsibilities	Level of influence	Level of Interest
Internal Stakeholders			
External Stakeholders			

[illegible]

APPENDIX 3

Cool Neighbourhoods

Heat stress awareness during the co-creation session in Goes



Agenda

- 17:30 Inloop
- 18:00 Presentaties:
 - o Introductie project Cool Neighbourhoods
 - o Eerste schetsen
 - o Houwelijkstructuur
- 18:40 Samen aan de slag
- 20:30 Plenaire terugkoppeling + vervolg
- 21:00 Afsluiting

Cool Neighbourhoods

- Projectdoel:**
Warmterisico's verminderen en de leefbaarheid voor bewoners van wijken in Noordwest-Europa vergroten
- o Creëren van bewustwording en vergroten van de kennis bij bewoners en bedrijven
 - o Demonstreren van koelingsmogelijkheden middels stedelijke pilots
 - o Ontwikkelen van methoden, kennis en instrumenten voor vergroten van leefbaarheid en hittebestendigheid

- 42 Maanden
November 2023 - Mei 2027
- 12 Projectpartners (BE, FR, LU, NL)
- 9 Pilots in 7 steden

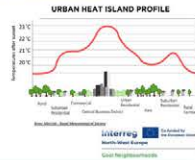


Hittestress



Stedelijk hitte-eiland

- Stedelijk gebied is (aanzienlijk) warmer dan omliggende landelijke gebieden
- Temperatuurverschil 's nachts groter
- Weinig kale aarde en vegetatie
- Minder energie van zon wordt gereflecteerd
- Gebouwen en grond slaan meer warmte op



Hittestress - Quiz

1. Wanneer spreken we in Nederland van een hittegolf?
- Bij minimaal 3 zomerse dagen achter elkaar (max. temperatuur 25 °C of hoger)
 - Bij minimaal 5 zomerse dagen (max. temperatuur 25 °C of hoger), waarvan er minimaal 3 tropische dagen zijn (max. temperatuur 30 °C of hoger)
 - Bij een minimumtemperatuur van 30 °C of hoger
 - Bij minimaal 2 tropische dagen achter elkaar van 30 °C of hoger

Hittestress - Quiz

2. Wat is volgens het KNMI de hoogst gemeten temperatuur ooit in Nederland?
- 40,7 °C
 - 42,0 °C
 - 45,1 °C
 - 39,7 °C

Hittestress - Quiz

3. Hoe ontstaat een stedelijk hitte-eiland (Urban Heat Island) effect?
- Doordat het steeds warmer wordt
 - Door het verstenen van steden
 - Doordat de steden steeds groter worden

Hittestress - Quiz

4. Wat kunnen de gevolgen zijn van hittestress?
- Vermoeidheid, concentratieproblemen, duizeligheid
 - Huidproblemen (jeuk, uitslag)
 - Slechtere waterkwaliteit
 - Alle bovenstaande antwoorden zijn juist

Hittestress - Quiz

5. Wat is gemiddeld de warmste maand?
- Mei
 - Juni
 - Juli
 - Augustus

Hittestress - Quiz

6. Hoe kun je hittestress tegengaan?
- Door bomen te plaatsen
 - Door het aanleggen van schaduwplekken
 - Alle antwoorden zijn juist
 - Door minder te verstenen
 - Door een groen dak aan te leggen

Hittestress - Quiz

7. Hoeveel temperatuurverschil zit er op een hete zomerse dag tussen een groen dak een traditioneel plat dak of pannendak?
- Een begroeid dak wordt rond de 35 °C warm en een onbegroeid dak tot meer dan 50 °C op een hete zomerse dag
 - Een begroeid dak wordt rond de 55 °C warm en een onbegroeid dak tot meer dan 70 °C op een hete zomerse dag
 - Een begroeid dak wordt rond de 35 °C warm en een onbegroeid dak tot meer dan 70 °C op een hete zomerse dag

Pilotgebieden gemeente Goes

- Pilot 1: Binnenstad
 - Bastion
 - Zusterstraat
- Pilot 2: Stadskantoor

Pilotgebied Binnenstad





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