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Devising strategies to reduce consumption-based emissions

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Participatory workshop drawing showing alternative visions for public space. *Source: SEI*

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SEI Stockholm Environment Institute

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Contents

Executive summary

This is one of two companion reports developed by SEI in close cooperation with the municipality of Malmö to support its green transition. Together, the reports aim to help the city create sectoral roadmaps and explore pathways for reducing consumption-based emissions as part of its transition towards climate neutrality by 2030.

Malmö is actively exploring how to effectively engage citizens in climate action. Its efforts and these reports recognize that city governments and their residents have important roles to play in achieving climate aims. Cities can support more rapid and more extensive progress in lowering emissions through the decisions they make in shaping related infrastructure, institutions, investments and residents' behaviours. Resident engagement can influence how effective these efforts are. Such engagement can help cities build needed trust, inform prospective policy measures, create a sense of community buy-in, and foster collective action.

This report, "*Devising strategies to reduce consumption-based emissions*", explores the value of collaboration in urban climate governance and offers guidance on how to engage citizens in building climate-neutral, sustainable and resilient cities. It introduces a conceptual framework to help enhance understanding of how to most effectively engage residents in sustainability transitions.

This framework was used to inform engagement workshops that SEI conducted with residents of Malmö. The findings of the workshops are integrated into the companion report, "*Designing roadmaps to reduce consumption-based emissions*", which focuses ways to reduce consumption-based emissions by using a sufficiency approach. Such an approach recognizes that overconsumption is a central part of the climate problem. A sufficiency orientation entails examining what is "enough" for a good life and the ways that basic needs can be met without excessive resource use. The companion report on sufficiency draws on three resources: findings from the resident workshops; a growing body of research and the latest findings on related concepts and principles; and an analysis of Malmö's policy mix, assessing whether sufficiency-oriented approaches are being used, and where gaps and opportunities exist.

Together, the reports aim to help inform efforts by Malmö and other cities to foster greater sustainability by examining two key matters:

- **Engaging residents** – How can the city design effective participatory processes to support low-carbon lifestyles and stronger community ownership of climate transitions?
- **Leveraging policy opportunities** – How can the city's planning and policy package use practical measures to seize opportunities to help bring about a low-carbon transition in ways that are inclusive and can enhance residents' quality of life?

Key messages

- **Municipalities influence everyday sustainability, and they can work closely with businesses and residents to help foster change.** Cities play a crucial role in enabling sustainable consumption by shaping the everyday environments that influence how people live and consume. Through policy, planning and public services, municipalities can promote low-carbon lifestyles. At the same time, working closely with businesses, civil society and citizens can help co-create policies to help translate climate ambitions into practical actions and inclusive changes.
- **Residents' participation in sustainability transitions should be designed with a clear intent.** Citizen participation in sustainability transitions should be guided by clearly defined purposes. Processes must align with their primary goals, such as informing policy, fostering empowerment and learning, or enabling local action. Participation approaches should be evaluated in relation to specific goals rather than operating on one-size-fits-all models. Clear objectives also help guide choices about methods, participant groups, and levels of engagement.
- **Focusing on issues that affect people where they live offers an effective way to start engaging.** One effective approach to engage residents is to use place-based participatory visioning – that is, asking residents to imagine the futures they want to have in their neighbourhoods where they live. This process enables people who live in communities to imagine and create desirable future scenarios together, based on lived experiences in the area. Focusing engagement on the neighbourhoods where participants live offers benefits. It can help uncover and raise discussion about local values and needs. It can strengthen collective agency of people in the community. And it can support context-sensitive transition pathways shaped by community aspirations.
- **Focusing on everyday wellbeing, rather than on abstract emissions targets, can help citizens engage and make the concept of sustainability tangible.** Connecting climate action to everyday life and wellbeing rather than to abstract emission targets alone supports more inclusive and sustained engagement. Focusing on shared concerns such as housing, mobility and public space makes sustainability tangible. This approach can strengthen local ownership, and build inclusive coalitions by engaging people as citizens, community members and partners in creating viable policies and measures to address key issues.
- **Reframing climate action can lead to new ways of thinking about sustainability.** Participatory processes can help shift climate policy away from technical measures that emphasize greater efficiency and towards basic human needs and wellbeing. Shifting emphasis in this way can create opportunities to reflect on what constitutes a good life within ecological limits, and by supporting learning, empowerment and changes in social norms.

Together, the reports aim to help enhance understanding of how Malmö can tap citizen engagement and sufficiency-oriented measures to help foster a sustainability transition, meet its environment and climate goals, and, at the same time, enhance quality of life for residents. These insights may also help other cities think about how their own engagement efforts and policy mixes can help them pursue and achieve their own sustainability plans and climate goals in ways that enhance the wellbeing of residents.

1. Introduction

Cities play a central role in climate governance by shaping infrastructure, institutions, investments and behaviours that support decarbonization. The City of Malmö, Sweden, recognizes this responsibility and has committed to achieving climate neutrality by 2030. As citizen support is crucial to reaching this goal, Malmö is actively exploring how to engage citizens in climate action.

The city's work to address his agenda has been developed through two projects:

- **Speak Up**, a 3-year Interreg North Sea Region project involving 12 partners across 6 countries. The project focuses on effective community and citizen engagement.
- **Pilot Malmö**, a project, supported by NetZeroCities, which aims to move the city from planning to implementation, broadening stakeholder engagement across business, civil society and local communities.

This report offers methodological guidance on how to engage citizens in building climate-neutral, sustainable and resilient cities. It is structured as follows:

- **Section 2** explores the growing importance of collaboration in urban climate governance.
- **Section 3** introduces a conceptual framework for understanding citizen participation in sustainability transitions.
- **Section 4** outlines how this framework informed the design of citizen engagement workshops.
- **Section 5** presents reflections and conclusions.

While further testing and refinement of the methodology are needed, we hope this guide will serve as a useful starting point for Malmö and other cities as they design participatory processes to support low-carbon lifestyles and stronger community ownership of climate transitions.

2. The collaborative turn in urban climate governance

2.1 The limits of municipal authority in governing household consumption

Urban climate governance is inherently a political undertaking, as it aims at transforming carbon-intensive systems and developing decarbonization pathways. Through political decisions, policies and initiatives, cities attempt to promote, regulate and incentivize both technological advancements and behavioural shifts that align with climate goals (Bernstein & Hoffmann, 2018).

In Sweden, municipalities have a high degree of autonomy, with constitutional self-governance and taxation rights that grant them significant influence over budgeting, urban planning and sustainability policies (Ansell et al., 2017). Swedish municipalities are also responsible for providing a wide range of public services, including social care, education, waste collection and housing (European Committee of the Regions, 2019). Many also engage in voluntary services, such as culture, leisure activities and energy supply, further shaping local consumption patterns (Axelsson et al., 2023). Governments have a central role in shaping discourses, norms, incentives and infrastructure that influence consumption patterns (Fuchs & Lorek, 2005; Wolff & Schönherr, 2011). Given the complexity of sustainability transitions, relying on individual consumer action alone is insufficient; systemic change requires structural interventions and collective efforts (Brown & Vergragt, 2016; Fuchs et al., 2016).

At the same time, local-government influence over consumption varies across different domains. When it comes to directly governing consumption, municipalities often find themselves operating at the edges of their formal jurisdiction and traditional responsibilities. A growing number of scholars argues that this requires new forms of collaboration, in which municipalities work alongside businesses, civil society and other stakeholders to create meaningful change (Palm et al., 2019).

Given that a large share of emissions stems from individual consumption patterns, including housing, mobility, food and leisure, cities cannot rely on traditional governance mechanisms alone. Achieving low-carbon lifestyles requires multi-stakeholder engagement, with businesses, civil society organizations and citizens actively contributing to sustainability transitions. While municipal policies and urban design can create an enabling environment, systemic change depends on shared responsibility and collaboration across sectors. By integrating diverse perspectives and fostering co-creation of measures and policies with residents, cities can play a facilitating role in enabling sustainable lifestyle transformations.

2.2 Urban climate governance as a collective action problem

Urban governance functions within polycentric and multilevel governance frameworks, where cities are embedded in institutional networks that involve both vertical interactions with regional, national and global actors, and horizontal interactions with citizens, non-governmental organizations (NGOs), businesses and other local governments (Axelsson et al., 2023; Hansen & Agger, 2023).

Greenhouse gas emissions arise from a broad array of sources. Moreover, the social, economic and political systems that sustain high-carbon consumption, energy use and mobility patterns often extend well beyond municipal control. Cities face a significant governance challenge because they have limited direct influence over private consumption and lifestyle choices.

This underscores the fundamental nature of climate governance as a collective action problem (Ostrom, 2010). Because emissions result from the cumulative decisions of governments, businesses and individuals, effective urban climate strategies require cooperation, alignment of interests, and trust building across public and private sectors (Hofstad et al., 2022). As a result, cities must develop nuanced engagement strategies to activate a broad coalition of stakeholders. This includes major technological firms, real estate developers, public agencies, but also citizens, civil-society organizations and small-scale businesses, whose everyday decisions significantly impact urban carbon footprints (Hofstad et al., 2023; Hughes, 2017).

2.3 Bridging policy and consumption: a multi-actor approach

In response to this complexity, co-creation has gained prominence in the climate governance literature as a promising approach to bridge the gap between policy and everyday consumption.

Co-creation is an emerging approach in collaborative governance. It brings together public institutions, private stakeholders, civil society and citizens to develop inclusive and effective climate solutions (Torfing, 2019). Unlike traditional citizen-participation models, which often focus on consultation, co-creation involves shared decision-making, resource exchange, and implementation through partnership

Based on current literature, we outline three ideal types of collaborative approaches to local climate governance. Each approach reflects varying degrees of institutional coordination, stakeholder participation and citizen engagement, and offers a lens for understanding the strategic choices cities make in pursuing climate goals (Hofstad et al., 2022).

Table 1 provides a summary of the three ideal types, highlighting their key characteristics and areas of focus.

Table 1. Three collaborative approaches in local climate governance

Approach	Key features	Main actors	Primary goals
Internal whole-of-government	Aligns municipal departments to integrate climate goals; prioritizes internal coordination and efficiency	Municipal agencies, climate offices, public administrators	Reduce emissions from public services and infrastructure; streamline governance
Stakeholder partnership	Builds collaboration with external actors in high-emission sectors; emphasizes innovation and investment	Businesses, research institutions, NGOs, municipal leaders	Drive innovation; scale green infrastructure; transform industry sectors
Civil society engagement	Engages citizens and communities through participatory processes and local initiatives	Community groups, civil society, citizens	Promote sustainable lifestyles; foster social cohesion; support behaviour change

Source: adapted from Hofstad et al. (2022)

To further unpack the conceptual distinctions between these approaches, the following sections provide a deeper analysis of their defining features and practical implications for municipal climate governance.

2.4 Three ideal types of local climate governance collaboration

The internal whole-of-government approach

The internal whole-of-government approach focuses on improving coordination across different parts of the government. It aims to bring together siloed departments and agencies that have their own, distinct goals and areas of expertise, and to establish shared climate objectives, roles and joint projects.

A common focus for cities using this approach is reducing their own emissions, such as those that arise from operating public buildings, providing city services, and using municipal equipment. To support this, a city might assign a dedicated public agency to lead and coordinate climate efforts. Such an agency works to align departmental activities, facilitate knowledge sharing, and ensure that climate goals are integrated across the entire municipal administration.

In this co-creation model, citizens play a more limited role in decision-making. Engagement tends to take the form of traditional participation mechanisms such as user boards, focus groups or citizen juries used primarily to gather input on climate plans, rather than to shape them directly.

The stakeholder partnership approach

The stakeholder partnership approach focuses on building external partnerships between local government and key private-sector stakeholders operating beyond the municipality's formal jurisdiction. These stakeholders often include property developers, green technology firms, transport and utility providers, and universities. The aim is to collaboratively address climate challenges in high-emission sectors such as energy, construction, urban planning and transportation.

Local governments work with these actors by setting up experimental platforms to test and pilot the decarbonization of infrastructure and related systems. These initiatives often take the form of science parks, business networks and urban living labs. While some of these efforts are city led, they are frequently initiated or managed by the partner organizations themselves or by third-party facilitators.

In this strategy, citizens gemerally are not directly involved. The primary goal is to mobilize expert knowledge, foster innovation, and accelerate the decarbonization of key urban systems – often with an emphasis on advancing technological solutions and supporting the growth of a green urban economy.

The civil society engagement approach

The civil society engagement approach focuses on working externally with civil society actors, including everyday citizens, community groups and local organizations. The goal is to create inclusive spaces where people can collaborate with local government to co-develop climate solutions grounded not just expert knowledge but in real-life experience.

This approach targets emissions linked to daily habits, personal consumption and urban lifestyles. It aims to make sustainable living part of everyday life by encouraging changes in behaviour, social norms and practices. In doing so, it aims to help reduce emissions and, at the same time, improve quality of life and foster social cohesion.

Civil society engagement can also strengthen the legitimacy of climate action by involving people directly in local initiatives. These efforts often take the form of workshops and community programs. Activities may include climate education, shared economy initiatives, and promotion of greener lifestyles.

By empowering residents to participate actively, this strategy has the potential to not only support climate goals but also build long-term community ownership and resilience.

3. The role of citizen participation in sustainability transitions

3.1 Why citizen participation matters

Citizen participation plays a vital role in sustainability transitions by making climate governance more effective, inclusive and actionable (Huttunen et al., 2022). The literature on sustainability transitions emphasizes the importance of complementing scientific knowledge with diverse forms of local and context-specific experiences, particularly when addressing complex and interrelated challenges such as urban development, energy use, mobility and lifestyle-related emissions (Soma et al., 2018). By integrating these varied perspectives through participatory processes, co-creation of knowledge enables more accurate diagnoses of problems and contributes to the development of more effective, durable policy decisions (Reed, 2008).

Moreover, studies show that public participation enhances the legitimacy and social acceptability of climate policies. Communities are more likely to support and cooperate with policies they have helped shape, which often results in more ambitious and transformative outcomes (Michels & De Graaf, 2010; Schroeter et al., 2016).

Beyond improving policy effectiveness, meaningful participation empowers individuals and fosters social learning. It enables citizens to shift from being passive recipients of top-down decisions to active agents of change who shape sustainability in their own communities (Hölscher et al., 2019; Wittmayer & Schäpke, 2014). Through participatory engagement, people gain knowledge and the capacity to co-create solutions that reflect their everyday realities and needs.

Participation also promotes deep learning processes, allowing individuals to reflect on their values, understand sustainability challenges more holistically, and engage in collective exploration of alternative futures (Vadovics et al., 2024). This is particularly important in urban contexts, where daily choices related to energy use, transportation and consumption directly impact emissions and ecological footprints. As scholars have noted, such participatory processes enhance citizens' ability to translate their inherited power into meaningful, lasting improvements in the quality of urban life (Neuhoff et al., 2023).

Empowerment and learning are deeply intertwined outcomes of transformative participation. Together, they support both personal change and collective capacity building, laying a foundation for more sustainable futures.

In addition, participation contributes to the democratization of science, asserting that those affected by research-driven solutions should also be involved in shaping the research process itself (Reed, 2008). These benefits underscore the importance of involving not only expert stakeholders but also ordinary citizens in generating action-oriented knowledge capable of supporting transitions toward sustainability.

The relevance of citizen engagement can be understood through multiple rationales. These frameworks help clarify why participation is important and how it should be approached (see Table 2). In practice, participatory processes may combine several

rationales, and this is not necessarily problematic. However, it remains important to clarify the main purpose of engagement, as this shapes both the design of participation and how its outcomes should be assessed.

Table 2. Rationales for citizen engagement

Rationale	Core focus	Key argument
Substantive	Improving knowledge and outcomes	Participation enhances decision quality by integrating diverse knowledge.
Instrumental	Achieving support and implementation	Participation helps establish legitimacy, reduce conflict, build trust, and lower costs of decision-making.
Normative	Promoting democratic rights and fairness	Citizens have a moral and democratic right to influence decisions that affect them. Participation is valuable regardless of the outcome.
Transformative	Using participation as a vehicle for justice, social change, power redistribution and empowerment, especially of marginalized communities.	Participation is a path to power redistribution, capacity building, and challenging of systemic inequalities.

Table based on Bidwell & Schweizer (2021) and Fiorino (1990)

While some rationales emphasize outcomes such as improved decision-making and smoother implementation, others focus on the participatory process itself. Normative and transformative rationales view participation as inherently valuable, highlighting its role in fostering justice, empowerment, identity formation and social transformation.

Scholars increasingly advocate for a shift toward these process-oriented perspectives, framing citizen participation not merely as a tool for better governance but as a space for learning, dialogue and democratic renewal (Fung, 2003; Wittmayer et al., 2014; Wittmayer & Schäpke, 2014). From this view, the significance of engagement lies not only in what it achieves, but in how it empowers individuals and communities, strengthens democratic capacity, and enables deeper societal change (Bidwell & Schweizer, 2021).

3.2 Citizen participation: four key roles in transitions research

Based on a recent, systematic literature review (Huttunen et al., 2022), citizen engagement in sustainability transitions research can be grouped into four key roles. These roles illustrate the varied and meaningful ways in which citizens have contributed to shaping transition processes such as visioning, planning, implementation, evaluation and method development.

This categorization is not only analytical but also practically relevant for local governments. It offers concrete insights into *how* citizens have been engaged in real-world research projects and *what local authorities can learn* from these approaches. Each role presents distinct benefits, challenges and applications, helping local governments better design citizen engagement that is purposeful, inclusive and impactful. These four roles are:

Envisioning sustainable futures

Citizens can help shape ideas about what a more sustainable future should look like. This often happens through workshops where people are invited to imagine and discuss what a sustainable city or society could be like in the future (for example 10-30 years from now. These kinds of activities are common in research about how societies can move from today's unsustainable way of living to more sustainable systems.

Purpose of engagement:
- Support local or national sustainability planning.
- Explore diverse stakeholder perspectives.
- Address barriers to sustainability transitions.
- Promote learning and reflection through dialogue.
- Empower local communities to take ownership of transition goals.
- Build collaboration between citizens, researchers and policymakers.

Implications for local governments:
Use visioning processes to co-create shared goals, identify social tensions, and foster ownership. These dialogues can inform strategy development while building community cohesion and buy-in.

Implementing local transitions in practice

Here, citizens are engaged in hands-on, real-world projects such as living labs, energy cooperatives, and urban food systems; citizens help design, test, and implement solutions.

Purpose of engagement:
- Enable transitions through practical, place-based actions.
- Foster learning by doing, among all stakeholders.
- Utilize local knowledge to co-create relevant solutions.
- Strengthen citizen capacity and confidence.
- Build trust and networks among actors.

Implications for local governments:
Partner with citizen-led initiatives, provide support for local experimentation, and integrate community insights into implementation plans. These processes often lead to more grounded and adaptive solutions.

Identifying public values, preferences, and impacts

In this role, citizens contribute input on attitudes to, perceptions about, and social acceptability of transition-related policies. Methods include surveys, deliberative workshops and participatory mapping.

Purpose of engagement:
- Assess public support or resistance to policies.
- Identify values, needs and concerns.

- Inform policy design for broader legitimacy.
- Provide a baseline for future engagement.
- Promote light-touch learning and awareness.

Implications for local governments:
Use these findings to inform policy, but do not stop at consultation. Instead, use input as a foundation for ongoing dialogue and more participatory governance.

Developing participatory methods and capacity building

Citizens can also contribute to the design, testing and refinement of participatory tools, including serious games, social indicators and digital platforms.

Purpose of engagement:
- Ground tools in real-world contexts.
- Merge expert and local knowledge.
- Improve the usability and legitimacy of planning tools.
- Support learning and behaviour change.
- Give citizens a role in shaping governance instruments.

Implications for local governments:
Adopt and adapt citizen-tested tools into planning and engagement strategies. In some cases, allow communities to lead methods development, reinforcing democratic innovation from below.

3.3 Understanding the diversity of citizens

To design effective engagement, it is essential to recognize that citizens are not a homogeneous group. They bring diverse forms of knowledge, experiences and perspectives to the table. Based on the work of (Huttunen et al., 2022), five common types of citizen participants can be identified, each contributing in distinct ways to sustainability transitions (see Figure 1). These types are:

- *Citizens representing the public*
  Demographically diverse individuals selected to reflect the general population. Often used in representative processes such as citizen assemblies or juries.

- *Active citizens*
  Already involved in sustainability efforts through activism, cooperatives or alternative practices. Often act as front runners or champions.

- *Particular citizens*
  Individuals engaged due to their unique social position or identity (for example, youth, elderly, farmers, consumers and members of low-income groups).

- *Citizens represented by non-governmental organizations (NGOs)*
  Participants represented by civil society organizations advocating for environmental or community causes.

- *Community members*
  Participants who live or work in an affected area. Offer rich, place-based knowledge essential to context-sensitive solutions.

Note: These categories can overlap. A citizen may simultaneously be an active participant, a community member and a citizen represented by an NGO.

Figure 1. Overview of citizen types and rationale for participation in sustainability transitions

The figure, based on Huttunen et al. (2022), presents five key categories of citizens commonly involved in sustainability research: public representatives, active citizens, community members, particular citizens, and those represented by NGOs. These categories reflect varying purposes of engagement and types of knowledge brought into participatory processes.

3.4 From insight to action: using the framework for strategic citizen engagement

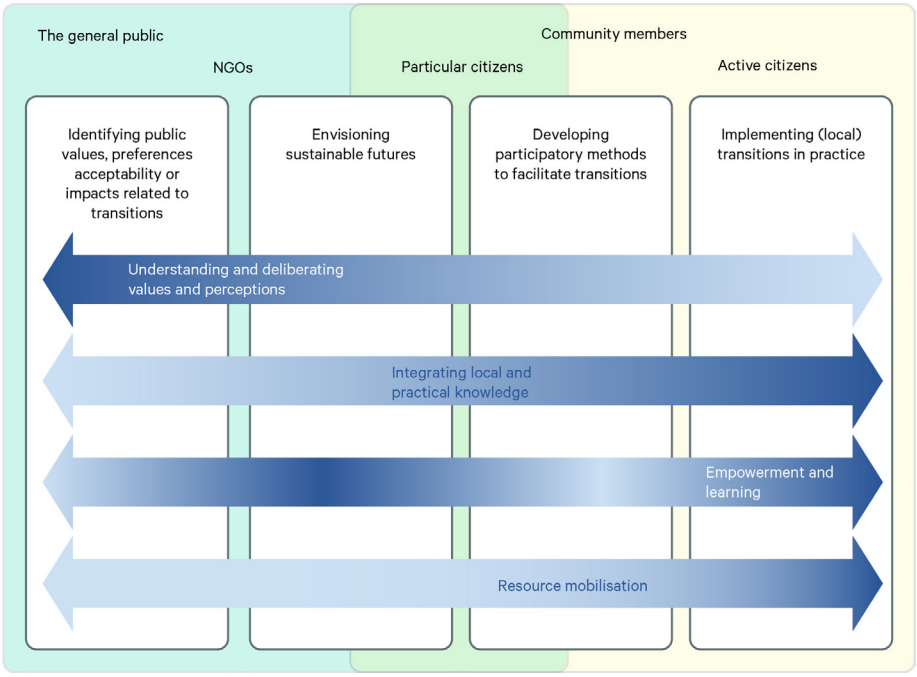
Each of the four citizen roles and the different types of citizens involved plays a critical role in enabling sustainability transitions. For local governments, the challenge is not simply to engage citizens, but to do so in ways that are strategic, inclusive and empowering. Effective citizen participation requires:

- Aligning the purpose of engagement with the appropriate process, methods, and target groups
- Creating space for dialogue, learning, and co-creation, not just consultation
- Valuing local knowledge and everyday experience as drivers of innovation
- Continuously reflecting on and improving engagement processes not only in terms of policy outcomes, but also based on citizens' lived experience and perceived impacts

By applying these principles from transitions research, local governments can foster more democratic, resilient and grounded sustainability pathways rooted in the real lives, aspirations and capacities of their communities.

Figure 2 illustrates this strategic approach. It provides a visual synthesis of how different types of citizens play distinct engagement roles across transition processes. The figure also highlights four core participation functions: 1) understanding values and perceptions, 2) integrating local knowledge, 3) enabling empowerment and learning, and 4) mobilizing resources.

Figure 2. Illustration of how different types of citizens contribute to transition processes through distinct engagement roles and functions. The four arrows indicate the key participatory functions, and their color intensity reflects how strongly each citizen group is typically associated with that function.



Source: adapted from Huttunen et al. (2022)

Local governments can use this figure as a strategic tool by considering three interconnected design dimensions:

Clarify the purpose of participation

Before designing a participatory process, it is essential to clarify its primary purpose. Are you aiming for outcome-oriented goals, such as influencing policy decisions or gaining public acceptance? Or are you focused on process-oriented goals, like fostering learning, building trust, or empowering communities?

Often, participation serves both purposes but usually, one is more primary or dominant than the other. Being clear about this helps in selecting appropriate methods and setting realistic expectations for participants and stakeholders.

A well-defined purpose helps determine the appropriate methods and level of engagement. Common objectives include:

- Understanding public values, needs, and perceptions
- Co-creating long-term visions and strategies
- Testing or developing participatory tools and methods
- Implementing practical, community-led transition initiatives

Each of the four roles – identifying values, envisioning futures, developing methods, and implementing change – requires different forms and depths of participation.

Match citizen types to the purpose of engagement

There are many types of citizens, each bringing different kinds of knowledge and perspectives. Involving the right mix of participants depends on the purpose of the engagement. For example:

- Engaging the general public to capture broad opinion or show support
- Involving active citizens to help implement local transitions
- Including specific citizens to understand particular behaviours or needs

Understanding which types of citizens to involve and for what purpose helps guide recruitment, tailor facilitation, and ensure that the engagement is inclusive and effective.

Fulfill the core functions of participation

Participation is not just about input. It is about transformation strengthening people's ability to understand issues, influence decisions, and act collectively. Four key functions help make engagement meaningful and generative:

- Understanding and debating values and perceptions
- Integrating local and practical knowledge
- Fostering empowerment and collective learning
- Mobilizing resources and action across sectors

Well-designed participation strengthens relationships, builds trust, and expands the democratic capacity of both institutions and citizens. Rather than treating participation as a one-off consultation, local governments should view it as an opportunity to build relationships, empower communities, and exchange knowledge. A well-designed engagement process enables citizens to not only contribute to decisions but also to gain new skills, insights and confidence through their involvement (Huttunen et al., 2022).

4. From theory to practice: our approach to citizen dialogues

This section outlines the methodological approach behind our citizen dialogues. It articulates the reasons why visioning matters, how we applied a place-based engagement model, and how we combined these strategies with participatory approaches to explore what sustainable living could look like in different local contexts. It concludes by reflecting on the strengths and limitations of our approach, and offering lessons about how participatory processes can be designed to better involve citizens in shaping climate transitions at the local level.

4.1 Why visioning matters in sustainability transitions

Addressing the complex and urgent challenges of sustainability transitions requires more than technological solutions or top-down policy frameworks. Scholars increasingly emphasize the need for new approaches that are integrative, collaborative and inclusive, to enable communities to imagine and co-create sustainable futures together (Evans & Karvonen, 2014; Leminen et al., 2021; Toivonen et al., 2021; Törnroth et al., 2022; Wittmayer et al., 2014).

Among such methods, visioning (or what some refer to as futuring (e.g., Neuhoff et al., 2023)) stands out as a powerful tool for transformation. Visioning allows communities to question the status quo, challenge dominant assumptions, and explore alternative configurations of needs, values and lifestyles (Bendor et al., 2017; Kishita et al., 2024; Svenfelt et al., 2024). This method shifts attention from what is, to what could be, making space for creativity, hope and critical reflection.

Formally, a vision is defined as a “desirable state in the future” (Wiek & Iwaniec, 2014), and “visioning” is the participatory process of articulating such a future. Historically, utopian thinking from Plato to Thomas More has played a key role in shaping social imagining of the future and critiquing of the present (Dixon et al., 2018). Utopianism, as Levitas (2013) argues, helps bridge the gap between what is and what ought to be, allowing people to imagine versions of the future that are not only feasible but also desirable.

This process is not just symbolic. It can inspire real change. As Sargisson (2012) suggests, visionary practices can provoke “paradigm shifts in consciousness” by showcasing new ways of being and organizing life. Utopianism thus becomes both a critique of the present and a method for collectively imagining different futures (Hedrén, 2014).

Crucially, participatory visioning expands this visioning process beyond traditional foresight methods typically reserved for policymakers, experts, and other elite actors (Neuhoff et al., 2023). It invites ordinary citizens, community representatives and those in marginalized groups to shape the future based on their lived experiences and values (Nikolova, 2014; Svenfelt et al., 2024).

This democratization of future making enhances legitimacy and relevance, allowing for visions that are context sensitive and socially grounded (Repo & Matschoss, 2018)

Participatory visioning also plays a critical role in identifying transition pathways that reflect societal values and needs (Carlsson-Kanyama et al., 2008; Gudowsky et al., 2021) and in agenda-setting processes that integrate citizens' normative perspectives into long-term planning (Rosa et al., 2021). Research shows that well-articulated and inclusive visions can inspire action, guide decision-making, and transform individual mindsets and social norms (Jensen et al., 2022; Wiek & Iwaniec, 2014).

Ultimately, visioning offers more than future planning. It is a political and cultural act that disrupts the taken-for-granted present, and it opens space for hope, imagination and new alliances. By engaging in visioning together, communities do not just imagine alternative futures they begin to enact them.

4.2 A community- and place-based futures approach

To ensure meaningful and inclusive engagement, we adopted a place-based approach to our citizen dialogues. This approach has been widely recognized for its ability to address complex societal challenges through local participation, co-creation and capacity-building. It acknowledges that citizens are deeply embedded in their local geographies and social contexts, and that, therefore, they bring valuable, practice-based knowledge rooted in lived experience (Huttunen et al., 2022).

Participants were recruited through open calls in two neighbourhoods, selected to reflect socio-economic and environmental diversity, and to provide insights from areas with relatively high levels of consumption-based emissions.[1]

This selection was intended to allow us to capture diverse perspectives and lived realities, and to generate comparative insights into how social and spatial contexts shape sustainability challenges and opportunities.

When combined with futures thinking, this place-based approach can be a powerful tool for developing transformative and context-sensitive pathways toward sustainability (Osborne et al., 2021). Participatory visioning is not about predicting a single future, it is about opening space to imagine and co-create multiple, desirable futures rooted in the aspirations of communities.

This approach supports:

- Recognition of local lived realities
- Reflection on community values and aspirations
- Development of collective agency

1 Recruitment challenges prevented us from include additional neighbourhoods. We acknowledge this as a limitation of the study.

Together, these elements shift the focus from reactive planning to proactive, value-driven transformation grounded in the question: *What kind of communities do we want?*

4.3 Workshop design and timeline

Each neighbourhood hosted three workshops designed to guide participants through progression from reflection to envisioning to action:

- **Workshop 1**: Exploring sufficiency and barriers to sustainable living
- **Workshop 2**: Visioning a sustainable future
- **Workshop 3**: From visions to reality: backcasting for sustainable futures

Table 3. Overview of data-collection workshops

Neighbourhood	Workshop date	Number of participants
Västra Hamnen	19 September, 2024	6 participants
	26 September, 2024	9 participants
	10 October, 2024	6 participants + 4 civil servants
Limhams Sjöstad	3 February, 2025	20 participants
	11 February, 2025	22 participants
	25 March, 2025	17 participants + 4 civil servants

4.4 Workshop method

We adapted the utopian sketching framework (Törnroth et al., 2022) by integrating the concept of sufficiency and the Future Travel Workshop method (Jensen et al., 2022). This five-stage participatory process guided participants from values exploration to shared future visions.

Table 4. Stages of the workshops

Stage	Purpose	Method	Data collected
Stage 1 – Explore key concepts	Explore key concepts on sufficiency.	• Workshop	• Audio-recording of discussions. • Observations and field notes
Stage 2 – Experiencing the space	Reflect on barriers to live sustainably	• Photo-voice (Bell, 2010) • Journaling about participants' experiences	• Audio recording of discussions. • Observations and field notes Photographs or sketches of the site
Stage 3 – Visioning and sketching utopias	Imagine alternative futures	• Future travel workshop (Jensen et al., 2022) • Utopian sketching (Törnroth et al., 2022)	• Participant sketches or prototypes • Audio recording of discussions. • Observations and field notes
Stage 4 – Sharing utopias	Encourage reflection and dialogue		• Audio-recording of discussions. • Observations and field notes
Stage 5 – Collaborative analysis	Generate collective insights	• Backcasting (e.g., Carlsson-Kanyama et al., 2008)	• Audio recording of discussions. • Observations and field notes with "thick" and "rich" descriptions

Source: adapted from Törnroth et al. (2022)

Workshop I – Exploring sufficiency and barriers for sustainable living

Aim

The first workshop focused on identifying barriers to sustainable living in participants' everyday environments. It also introduced key concepts including climate knowledge, sufficiency, and the idea of a "good life" to spark discussion around personal values, wellbeing, and what constitutes a sufficient level of consumption.

To ground the discussion in lived experiences, participants took part in a walk-and-talk activity using the photo-voice method (Bell, 2010), which involved walking and photographing places and journaling, giving participants an opportunity to reflect on barriers and opportunities for climate-friendly living.

Photographs captured subjective relationships to space and became tools for storytelling and meaning making. This process helped uncover how residents experience their neighbourhoods and how these experiences inform what they value and envision as part of a good life (Törnroth et al., 2022). These insights laid the foundation for the more future-oriented exercises in subsequent workshops.

Table 5. Overview of workshop 1 activities

Exercises	Description	Time
Step 1: Exploring sufficiency	Participants reflected individually and in groups on the following questions: • What does a good life mean to you? • What comes to mind when you hear the word "sufficiency"? What would it mean for you personally to live sufficiently? Reflect on both positive and negative aspects. • Which of the concepts related to sufficiency (slow living, slow travel, etc.) resonates with you the most or the least? Why did you find these particularly interesting?	30-45 minutes
Exercise 2: Walking and talking	Small groups, accompanied by a facilitator, walked through the neighbourhood to reflect on barriers and opportunities for sustainable living. Participants were asked to take photographs of specific sites and to respond to prompts in guided booklets. The questions posed were designed to support reflection on the role of space in shaping everyday behaviour: • What kinds of behaviours does this place encourage? • How would you like this space to change? This exercise was designed to foster place-based awareness and embodied reflection, helping participants connect sustainability challenges to their lived environment.	30 minutes
Exercise 3: Sharing reflections	Groups returned and shared the most important insights from their walks. Facilitators documented reflections and photos for later stages.	30 minutes

Workshop II – Envisioning a sustainable future

Aim

The second workshop focused on envisioning a desirable, climate-neutral future. Building on insights from Workshop 1, it encouraged participants to imagine how their neighbourhoods could better support sustainable and fulfilling lives. The aim was to move beyond incremental improvements and invite participants to think radically and creatively about future possibilities.

To support this, participants first took part in a guided visioning activity to unlock imaginative thinking. This was followed by utopian sketching, a creative design exercise that allowed participants to visually reimagine their surroundings in line with their envisioned futures. The final part of the session involved sharing utopias, with participants presenting and discussing their sketches with the group.

In the context of urban planning, utopian sketching serves an important purpose. It facilitates bottom-up learning through community-driven "shop-floor experiences" (Ehn, 1993), allowing participants to critically reflect on their environments and articulate aspirational change. This collaborative design process helps participants come up with shared values and goals, and helps support the development of place-based design solutions that are grounded in lived experiences, needs and motivations (Törnroth et al., 2022).

Table 6. Overview of workshop 2 activIties

Exercise	Description	Time
Exercise 1: Visioning the future	Participants engaged in a guided visualization exercise (based on the Future Travel Workshop method) to imagine a future in which climate goals had been achieved. They reflected individually on what they saw, heard, and experienced in that future, and then shared their insights in a group discussion.	45–60 minutes
Exercise 2: Utopian sketching	Participants sketched future visions of their neighbourhood using photos, transparent overlays, and markers. They were encouraged to creatively redesign spaces. The activity was designed to invite speculative thinking and playful experimentation.	45–60 minutes
Exercise 3: Sharing utopias	Participants presented their sketches and discussed key ideas with the group. They were asked to reflect on the following: • What is the purpose of the redesigned space? • Who is it for? • How does it support sustainable living? This step was intended to help participants discover and discuss shared values and diverse perspectives, deepen the collective exploration of sufficiency-based futures.	30 minutes

Workshop III – From vision to reality: backcasting for sustainable futures

Aim

The third and final workshop focused on translating participants' future visions into tangible actions by building on the insights from the previous sessions. It used backcasting: a strategic planning method that starts with a desirable future and works backwards to identify the steps needed to get there (Kishita et al., 2024).

Participants revisited the utopias developed in Workshop 2 and explored how these visions could be realized in practice, considering both personal and policy-level interventions. The core aim was to move from abstract ideas to concrete pathways by identifying enablers, potential barriers and key strategies to reduce consumption-based emissions at the neighbourhood level.

This method is designed to promote action-oriented thinking and empower participants by validating their visions and inviting them into processes of co-design and governance. It links aspiration with implementation, bridging imagination and policy through participatory foresight.

Table 7. Overview of workshop 3 activities

Exercise	Description	Time
Exercise 1: Revisiting the visions	Facilitators presented the collective visions developed in Workshop 2, based on a thematic analysis of the future travel narratives and utopian sketches. Participants were invited to reflect on and respond to the visions using two guiding questions: • Do you feel recognized in these visions? • Which themes are most important for sustainability?	30–40 minutes
Exercise 2: Backcasting from the future	Building on the identified themes, participants engaged in a structured backcasting exercise. The visions were translated into key consumption-related categories, and participants discussed what would need to change to realize them. A municipal expert was present to provide local policy context. Participants were asked to reflect on: • What changes are needed at the individual level? • What policies or infrastructure must change? • Who should be responsible: citizens, local government, civil society, the private sector, or national actors?	60 minutes
Exercise 3: Sharing pathways	Groups presented their backcasting results to the full group. The discussion focused on implementation challenges, trade-offs, and responsibilities of different societal actors. This step was intended to encourage critical reflection and peer learning.	30–40 minutes

4.5 Strengths of the participatory approach: value exploration, inclusion and plurality

From problem solving to value exploration

One of the key strengths of the participatory approach is its shift from problem-based discussions toward deeper, value-based exploration. The workshops encouraged participants to engage with fundamental questions:

- What makes a good life?
- What kind of neighbourhoods do we want?
- What values should guide our future?

This orientation created space for more holistic and transformative thinking, moving beyond technical fixes to consider the social and ethical dimensions of sustainability.

As Neuhoff et al. (2023) argue, participatory visioning should support critical reflection on dominant societal norms such as consumerism, growth dependence and technological optimism. Such an approach should help participants in the process generate alternative visions grounded in care equity and interdependence. This aligns with broader calls in the literature for sustainability visions that move beyond incremental improvements. As societies struggle to meet human and social needs without undermining ecosystems or exacerbating global inequalities, there is a growing demand for forward-looking, normative visions that can guide transitions toward more sustainable futures.

Creative and inclusive engagement

The use of playful and creative formats such as sketching has been recognized in the literature for enabling new forms of participation, particularly among groups that have often been excluded from conventional planning processes. Scholars have highlighted how these approaches can offer more accessible and emotionally resonant entry points for engagement, helping to involve children, elderly residents and individuals from marginalized groups (Törnroth et al., 2022).

Plurality over consensus

Importantly, our process did not aim for consensus. Instead, it explicitly welcomed disagreement and differences of opinion. The exercises were designed to create space for conflicting perspectives to surface and to be discussed and negotiated in a constructive way. This approach proved especially valuable in urban contexts in which views on sustainability are often diverse and at times contradictory. By legitimizing disagreement and avoiding premature consensus, the process supported a more democratic and dialogue-based form of participation one that better reflects the complexity of real-world change (Törnroth et al., 2022).

Value of the place-based approach

A key strength of such methodology lies in its place-based orientation. Anchoring participatory processes in specific local contexts such as neighbourhoods can make the issues that are the subject of engagement relatable and reveal practical pathways for implementation. By focusing on people's immediate surroundings, it is possible to connect abstract sustainability goals to tangible, everyday concerns, such as mobility and shared spaces.

This highlights the potential value of place-based engagement not just as a tool for participation, but as a foundation for building local networks and collective capacity. In this way, the approach contributes not only to generating visions of sustainable futures, but also to laying the groundwork that can help foster real-world transitions at the neighbourhood level.

4.6 Methodological limitations and design considerations

While the participatory process generated valuable insights, it also surfaced some important limitations. These reflect broader challenges in participatory research especially on inclusion and representation. However, instead of interpreting these limitations as a weakness of participatory processes in general, we see them as reminders that participatory processes must be evaluated in light of their intended purpose and design.

Representational ambitions and practical constraints

From the beginning, we aimed to engage participants from neighbourhoods with different characteristics and socio-economic profiles. This included two high-consumption areas and one socio-economically disadvantaged neighbourhood. The intention was to ensure a diverse spread of perspectives what is often referred to as discursive representativeness.

However, we were only partially successful. While we conducted workshops in the two high-consumption areas, we were unable to recruit participants from the socio-economically challenged area, despite multiple outreach efforts. This reflects a broader and well-known issue: structural barriers such as lack of time or lack of trust often make it more difficult for marginalized groups to participate.

Reflecting on limitations without discrediting participation

The absence of participants from the disadvantaged neighbourhood limited the project's capacity for spatial and socio-economic comparison. Such a comparison could have provided deeper insights into how material and spatial conditions shape people's visions of sustainable lifestyles.

At the same time, the core objective of the project was to engage residents of high-emission areas where lifestyle changes could have significant climate impact. The inclusion of these neighbourhoods yielded valuable insights into sustainability challenges and opportunities in more affluent contexts. Additionally, the project was exploratory in nature, as it aimed to test recruitment strategies and participatory formats in different settings. Even where recruitment was unsuccessful, the process generated important methodological learning for example, about which outreach channels were more effective, what barriers reduced participation, and what types of engagement may require longer-term relationship-building.

These experiences underscore the importance of context-sensitive design and the need for flexible, adaptive strategies. We were able to explore everyday experiences, collective imaginaries and underlying values. The workshops generated rich, situated insights and contributed to momentum for future participatory engagement.

We also want to push back against a common tendency in sustainability research and practice: the quick dismissal of participatory processes based on recurring critiques such as only reaching the already engaged or failing to achieve statistical representativeness. While these are valid concerns, they risk becoming overly generalized and unhelpful when applied uniformly. Participatory processes vary widely in purpose, scope and context. As such, they should be evaluated based on their intended goals and design logic, rather than against a one-size-fits-all ideal. In fact, the persistence of these critiques may point to deeper design flaws about how to conceptualize and operationalize participation. This highlights the need for more thoughtful and purposive approaches, not less engagement. We explore more of this argument in the following section.

4.7 Strengthening participatory practice: purpose, design and direction

Purpose-driven participation

We argue that participatory processes should be grounded in a clearly defined purpose. Huttunen et al. (2022) put forward the critique that citizen engagement in sustainability transitions research often lacks sufficient reflection on who is involved, how participants are positioned, and what roles they play. This lack of clarity, they argue, makes it difficult to determine what kinds of knowledge are being valued, how the outcomes of participation should be interpreted, and how to assess the success of the participatory engagement itself. Building on this critique, we stress the importance of aligning purpose, participant selection and engagement methods from the outset.

We suggest that a strong participatory design aligns its methods, participants and scope with its intended goals. For example, if the aim is to implement local sustainability initiatives like a carpool scheme or repair café, it may be most effective to work with citizens who are already active and who have the networks and capacity to drive action. In such cases, representativeness may be less critical than practical feasibility and community anchoring. What matters is that the process remains

transparent about its scope, honest about what it can and cannot achieve, and open to continual reflection about inclusion, positioning, and the influence participants have.

Addressing power and possibility

Attention to power is essential. As Huttunen et al. (2022) note, ideally, citizen engagement should not be limited to working with already active or concerned individuals. It should also reach those who are less engaged, and find ways to involve them meaningfully in shaping sustainability transitions. This calls for reflection not only about who participates, but also about how they are positioned, what roles they are given, and whose knowledge is valued.

To support broader and more inclusive participation, diverse methods are needed both to reach a wider range of citizens and to enable different forms of contribution. Creative and arts-based approaches, such as storytelling and visual workshops have been highlighted for their potential to allow more open and accessible forms of expression. In this project, tools like utopian sketching and future travel workshops showed promise in creating reflective and engaging spaces. Expanding these formats to other contexts, especially those where participation is often limited could further strengthen their inclusive potential.

By placing purpose, reflexivity, and strategic design at the heart of participatory processes, we believe it is possible to strengthen the legitimacy and impact of citizen engagement in sustainability transitions.

5. Conclusions: designing participatory processes for transformative climate engagement

This report demonstrates how municipalities can play a crucial role in enabling sustainable consumption by shaping the everyday environments that influence how people live and consume. Through policy, planning, and public services, cities can make low-carbon lifestyles easier and more attractive. At the same time, working closely with businesses, civil society, and residents can help translate climate ambitions into practical, inclusive actions that resonate with people's daily lives.

Municipalities are enablers of everyday sustainability.

The findings underline the important role municipalities play in influencing everyday sustainability. Decisions about housing, mobility, food systems, and public space shape how needs are met and what forms of consumption become normal or necessary. When municipalities engage collaboratively with local actors, they can help align climate goals with lived realities and support changes that are both socially meaningful and environmentally effective.

Participation should be designed with a clear intent.

A central conclusion of this report is that resident participation in sustainability transitions should be guided by clearly defined purposes. Participatory processes need to be explicit about whether their primary aim is to inform policy, foster learning and empowerment, enable local action, or a combination of these. Clear intent helps guide the choice of methods, participant groups, and levels of engagement, and provides a basis for evaluating participation in relation to its specific goals rather than against one-size-fits-all models.

Place-based engagement offers an effective starting point.

Focusing engagement on issues that affect people where they live offers an effective way to involve residents in sustainability transitions. Place-based participatory visioning inviting residents to imagine the futures they want for their own neighbourhoods proved to be a powerful approach. Grounding discussions in local contexts helped surface shared values and needs, strengthened collective agency, and supported the development of transition pathways shaped by community aspirations and everyday experiences.

Everyday wellbeing makes sustainability tangible.

The report also shows that focusing on everyday wellbeing, rather than abstract emissions targets alone, can make sustainability more tangible and engaging. Framing climate action around shared concerns such as housing, mobility, access to public space, and time use helped participants connect climate goals to their own lives. This approach supported local ownership and enabled people to engage as citizens, neighbours, and community members, not only as consumers responding to behavioural incentives.

Reframing climate action through sufficiency can align action with residents' values.

Participatory processes can also help reframe climate action in more fundamental ways. By shifting attention away from narrowly technical measures focused on efficiency and toward basic human needs and wellbeing, sufficiency-oriented approaches open space for reflection on what constitutes a good life within ecological limits. Such reframing can support learning, empowerment, and changes in social norms, and can help align climate action with values that matter to residents.

Final reflections

Taken together, the findings of this report and its companion report show how Malmö can tap citizen engagement and sufficiency-oriented measures to help foster a sustainability transition that supports both climate goals and quality of life. While the empirical insights presented here are grounded in neighbourhood-level engagement and primarily reflect perspectives from higher-consumption contexts, the design principles and lessons offered are broadly relevant.

These insights may also be useful for other cities seeking to strengthen their engagement efforts and policy mixes in ways that support climate action while enhancing residents' wellbeing. By combining clear purpose, place-based participation, and a focus on everyday needs, municipalities can create more inclusive, grounded, and transformative pathways towards sustainability.

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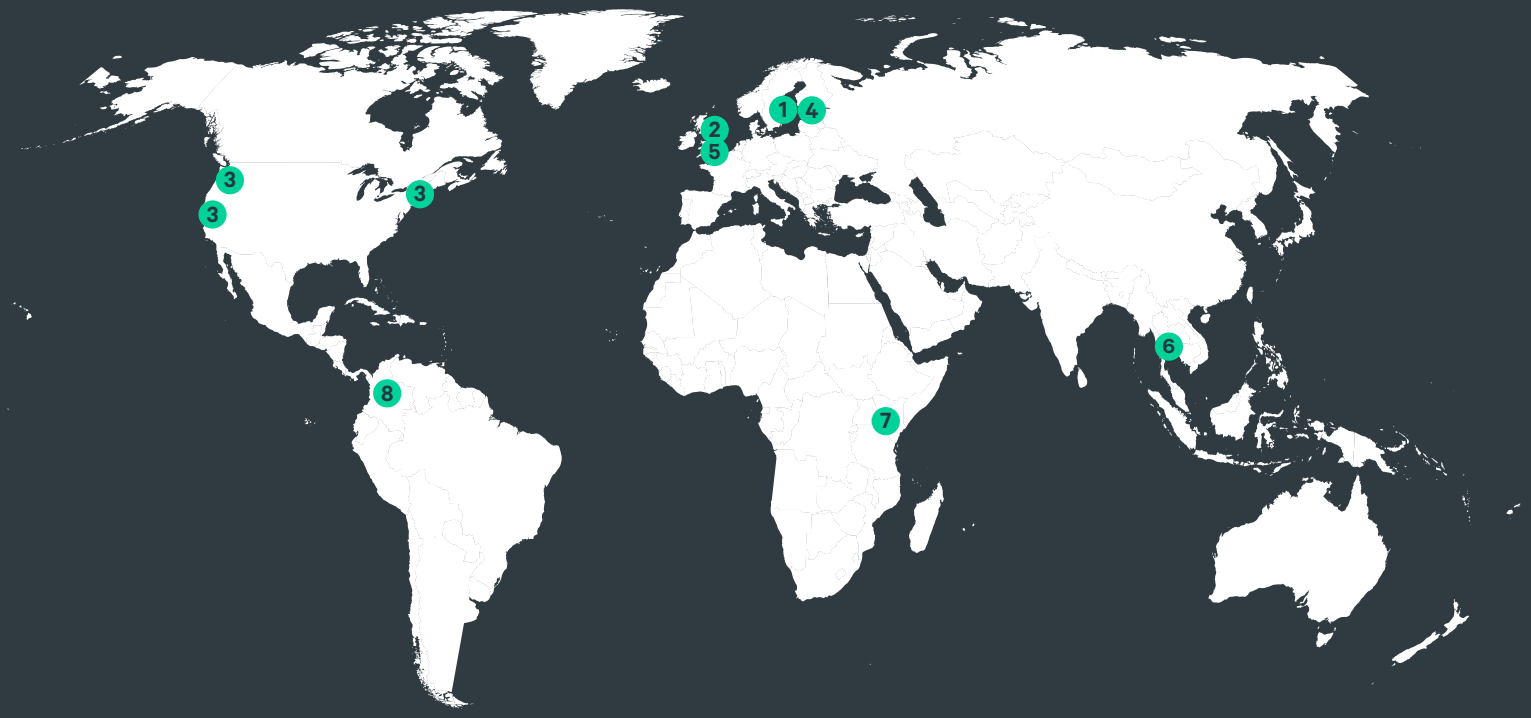

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