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Localizing SDGs: the case of city planning in Malmö

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Cities have an important role to play in implementing the UN Sustainable Development Goals (SDGs) and to mobilize sustainability at the urban level. Yet, municipalities encounter challenges in localizing the SDGs into their governance structures, and there is a need to advance our understanding of cities strengths and weaknesses in such processes. In this article we provide knowledge and reflections gained in analyzing the process of localizing the SDGs into the spatial planning of Smörkajen, a former industrial harbor site in Malmö, Sweden. By applying the analytical framework of Institutional Capacity Building, the study explores the process of localizing the SDGs in terms of building relational and knowledge capacities and to provide mobilization capacity by the formation of a sustainability strategy. The results illustrate an inclusive approach supporting relational capacity and numerous measures to enhance knowledge capacity, bringing about the formation of a draft sustainability strategy, strongly supported by the municipal participants. But rather than formally adopting the full strategy in the spatial planning of the Smörkajen area, the results of the process were only to be considered to the extent the traditional documents and processes allowed. In all, the results illustrate a strong support for the use of localized SDGs among municipal administrative units to mobilize sustainability, but also the challenges in actually implementing these in the formal planning and development process.

KEYWORDS

localizing SDGs, institutional capacity building, urban development, spatial planning, city planning

1. Introduction

In 2015, the United Nations adopted the Sustainable Development Goals (SDGs) (UN, 2015), recognizing that sustainable development will rely on actions in a variety of areas at different levels in society. The SDGs further emphasize the significance of cities' contribution to sustainability by providing a specific goal on cities and communities (Goal 11) (Parnell, 2016). At the same time, all the SDGs and their related targets and indicators are to be seen as vital for the development of sustainability at the city level. In that vein, the SDGs can provide a holistic, integrated framework for sustainable development at the city level. Nevertheless, such use of the SDGs will require the adaption of these to the city context, a process often referred to as localizing the SDGs (Patole, 2018; Bonsu et al., 2020; Jones and Comfort, 2020; Bandari et al., 2022; Carrasco et al., 2022).

The challenges of localizing the SDGs to the city level have been highlighted by several scholars (e.g., Graute, 2016; Weymouth and Hartz-Karp, 2018; Terama et al., 2019; Valencia, 2019). One process often referred to is the process of reporting, assessments and benchmarking on sustainability (Arfvidsson et al., 2017; Patel et al., 2017; Kaviti Musango et al., 2020; Cellura et al., 2022), replacing sustainable indicator systems such as the UN Habitat Urban indicators and the EU's Urban sustainability indicators. The reason for replacing traditional indicator systems is the comprehensive profile of sustainability

provided by the SDGs (Zinkernagel et al., 2018). Depending on the context, some SDGs may, however, be more important and match local needs better than others (Tan et al., 2019). In parallel, earlier practice and the use of traditional indicator systems may have identified sustainability challenges that are not appropriately covered by the SDGs. This subsequently implies a need to complement the SDGs with additional targets to match local needs. The literature on localizing the SDGs also provides insights into challenges related to the use of sustainability indicators to support policy design and learning (Wilson et al., 2007; Huang et al., 2015; Arslan et al., 2016; Pupphachai and Zuidema, 2017; Thomas et al., 2021) as well as into governance (McCormick et al., 2013; Arslan et al., 2016; Barnett and Parnell, 2016; Arfvidsson et al., 2017; Lund, 2019; Terama et al., 2019).

Research on the integration of sustainability, and the use of SDGs, in spatial planning has been limited, nevertheless indicating that although spatial planning is to be seen as a critical tool through which sustainability could be implemented, the municipal administration seems to struggle with difficulties in integrating sustainability into traditional planning processes (e.g., Reimer, 2013; Gustafsson et al., 2019; Högström et al., 2021). The literature describes spatial planning as a highly formalized process, difficult to modify (Hrelja et al., 2015). To overcome the barriers of implementing sustainability, and the SDGs, in spatial planning, scholars call for flexibility (Castán Broto, 2017), but also a need to embrace the difficulties to redesign processes of urban planning, and thus adopting stepwise changes (Schuetze and Chelleri, 2016).

Overall, key messages in the literature on localizing SDGs are the importance of an integrated systems perspective across levels and disciplines (Moallemi et al., 2019; Valencia, 2019; Tremblay et al., 2021) as well as the need for collaboration between different actors and actor networks (Bonsu et al., 2020; UCLG, 2020; Cinderby et al., 2021; Krantz and Gustafsson, 2021; Butcher, 2022). Although cities have started to align their work on sustainability to the SDGs, most cities lack experience of using these comprehensive goals in practice, and of designing inclusive cross-administrative and multi-actor processes with an integrated systems perspective (Croese et al., 2020; Krantz and Gustafsson, 2021). In order to get the SDGs to mobilize sustainability effectively at the urban level, new and less established ways of working with sustainability will be required.

The aim of the study presented in this paper is to address the research gap on the use of SDGs in spatial planning, and to explore to what extent the use of a cross-administrative planning process could mobilize sustainability and overcome barriers of implementing the SDGs. This will be done by exploring the process of localizing the SDGs for city spatial planning in the development of Nyhamnen in Malmö. The focus will be on the pre-planning process, which was to result in localized SDGs in the format of a formal overarching sustainability strategy with the purpose to guide and direct the spatial planning process. The pre-planning process was limited to the area of Smörkajen, which was the first part of Nyhamnen to be developed (Figure 1). The sustainability strategy of Smörkajen was agreed to have a catalyzing role in setting focus and trends for the development of the entire area of Nyhamn. The process for pre-planning of Smörkajen lasted from autumn

2017 to spring 2020, although preparatory and follow-up meetings occurred before and after this period.

The pre-planning process of Smörkajen may be described as a pioneering project in localizing the SDGs in city planning in Malmö, building on a cross-administrative and novel type of planning process. Already in 2015, Malmö signed the “Declaration of Cities commitment to the 2030 Sustainable Development Agenda” (Malmö City, 2015) and in 2018 the city presented a strategy for localizing the SDGs (Malmö City, 2018). Based on this strategy, the city of Malmö strives to convert and localize the SDGs into all municipal governance processes, including processes of spatial planning and development. The strategy stresses the importance of multi-actor collaboration and participation for learning in processes of localizing the SDGs, as well as the need to make the SDGs an integral part of the city development in terms of existing steering and management systems.

The analysis of localizing the SDGs in the pre-planning process of Smörkajen presented in this paper is based on the cross-administrative aspects of mobilizing sustainability, this by assessing the process in terms of institutional capacity building, i.e., relational capacity, knowledge capacity and mobilization capacity, and various aspects of such capacities (see Section 2 and 3). This analytical framework of assessment aligns well with the overarching Malmö strategy for localizing the SDGs (Malmö City, 2018). The data that the research is applied to consist of municipal spatial planning documents, meeting notes, presentations and workshop documentation. In addition to this, data have been collected through interviews with municipal employees and others who participated in the process. In all, 12 people were interviewed representing relevant administrative units within Malmö municipality. The research was developed as follows: the analytical framework of the assessment was developed based on a literature review, then applied to analyse the pioneering case and process of localizing the SDGs in Smörkajen, and after a solid process of gathering of data through various document and interviews, the results have been advanced and discussed.

2. Analytical framework

The analysis of localizing the SDGs calls for a comprehensive analytical framework to assess the advancement of cities’ ability to mobilize in cross-sectoral areas such as sustainability. In this, paper the analytical framework of Institutional Capacity Building (ICB) is applied (Healey et al., 2017; Magalhães et al., 2017), which builds on the understanding that a process of collaboration and co-creation is necessary to achieve transformative change, linking traditionally unconnected actors and networks (Healey, 2006; Gualini, 2017), and emphasizing the need for enhancing knowledge capacity to bring about mobilization. The ICB framework has been used in previous studies across different fields, addressing processes of environmental planning (Bullock and Reed, 2020), climate mitigation (Breukers and Wolsink, 2007; Wretling and Balfors, 2021a,b), industrial symbiosis (Spekkink, 2013), climate-neutral construction (Kurul et al., 2012; Smedby and Neij, 2013) and local networks’ role in increasing knowledge exchange (Polk, 2011; Shahraki, 2019; Gonzalez Medina and Huete Garcia, 2020).



A common focus of these studies has been the analysis of urban sustainability in a multi-stakeholder perspective.

The ICB framework builds on the notion of inclusive governance that is able to deliver space- and context-specific development processes (Magalhães et al., 2017). Building on the assessment of (1) relational capacities, (2) knowledge capacities and (3) mobilisational capacities, the ICB framework allows us to explore and assess processes of localizing SDGs in a local context. The first component of the ICB framework allows for the analysis of municipalities as multi-sectoral units with several perspectives of sustainability within the administration, and potential tensions and conflicts that may arise (Innes and Booher, 2003; Cars et al., 2017). The relationships that exist, or are formed during the process, impact on the dynamics of the process and thereby influence the willingness for mutual learning and mobilization (Smedby and Neij, 2013).

The second component of the ICB framework stresses the importance of knowledge resources to enable mobilization. In order to find new and innovative solutions to complex problems, it is beneficial to involve a broad diversity of actors, to merge knowledge and experience from various sectors (Innes and Booher, 2003). The knowledge resources in the process include varying frames of references and tacit knowledge that is pooled through a broad variety of participants (Wretling and Balfors, 2021a). In the context of this research, knowledge is analyzed in terms of past experiences of participants, opportunities for knowledge exchange, and knowledge development, as well as the inclusion of external expertise in the process of localizing SDGs.

The third component of the ICB framework concerns mobilization in terms of agency and capacity to act. This can be defined from an actor perspective, i.e., learning processes and generation of agency through those involved and in stipulating others to mobilize (Polk, 2011; Spekkink, 2013). Alternatively, mobilization can be studied from a structural perspective, defined by the willingness to embrace necessary change (Wretling and Balfors, 2021b), to understand institutional dynamics (Magalhães et al., 2017), and the potential to unify stakeholders behind common goals (Breukers and Wolsink, 2007). A direction for action, in terms of visions and common goals, has been described

as an important link between the process forming mobilization and actual transformative change (Ranhagen, 2008).

In this paper, the ICB framework will be applied to explore and assess how (1) relational capacities, (2) knowledge capacities and (3) mobilisational capacities have evolved over time in the process of localizing SDGs in the pre-planning process of Smörkajen. Key questions for the assessment of relational capacities are aspects of who participated, arenas available for networking, and processes for relation-building and co-creation. In the case of knowledge capacities, we explore processes of knowledge exchange among the participants and based on external knowledge providers. To understand actual processes of mobilization, we will assess mobilisational capacities in terms of the development of a sustainability strategy based on localized SDGs. The process of mobilization will also be assessed and discussed as a result of the actual use of the sustainability strategy in the pre-planning of Smörkajen and the spatial planning process and development of Nyhamn as a whole.

3. Materials and methods

The assessment of the processes of localizing SDGs presented in this paper was based on data collected through municipal documents such as meeting documents in the form of protocols, sketches, photographs, meeting notes and reports. These data sources provided information with regard to participation, ways of networking, progress made, changes in priority, increase in complexity and development paths. To further understand the process, such data and information were triangulated through semi-structured interviews, performed in 2020, to allow the interviewee to reflect on the process and its progression. An interview guide was developed and used for all interviews which provided direction during the interviews yet at the same time leaving room for the respective interviewee to elaborate more or less on specific topics. By adopting this semi-structured approach, responses were expected to go into more depth and fill in a level of detail (Bryman, 2012). The interview guideline consisted of eleven questions covering all three capacities. Through interviews it was possible to get personal feedback and experiences from participants

TABLE 1 Overview of data collection.

	Interview themes	Data sources
Relational capacities	Participation, ways of networking	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Workshop documentation Project plan Smörkajen
	Representation	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Workshop documentation Interviews
	Type of conversation, facilitator	<ul style="list-style-type: none"> Interviews
	Relationship among participants	<ul style="list-style-type: none"> Interviews
Knowledge capacities	Information provided to the group	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Workshop documentation
	Purpose of the workshops	<ul style="list-style-type: none"> Meeting invitations
	Learning from past experiences	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Presentations Project plan Smörkajen
	External speakers	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Presentations Study visits
	Awareness in the group over time	<ul style="list-style-type: none"> Meeting notes; Meeting invitations Interviews
	Challenges and tensions	<ul style="list-style-type: none"> Workshop outputs Presentations Interviews
	Use of results	<ul style="list-style-type: none"> Workshop outputs Interviews
	Mobilisational capacities	Acting collectively
Future orientation in the conversation Developing a common vision		<ul style="list-style-type: none"> Meeting notes Workshop documentation Sustainability strategy Interviews
Goals formulated		<ul style="list-style-type: none"> Workshop documentation Sustainability strategy
General thoughts about the process, challenges with the strategy, relevance for future cross-administrative collaboration		<ul style="list-style-type: none"> Interviews

(King, 2004; Bryman, 2012; Young et al., 2018). An overview of the data gathered is provided in Table 1.

As the process of localizing the SDGs in the Smörkajen case was run to a large extent internally within the city of Malmö, the pool of potential interview candidates was relatively small (the total number of individuals who participated at least once was less than 40). Candidates for interviews were chosen depending on the highest/longest time of participation in the process. At the same time, an even distribution across the administrative and units

TABLE 2 Overview of interviewees.

Represented organization	Administrative unit	Position
City of Malmö	City planning office- planning	Head
City of Malmö	City planning office-strategy	Head
City of Malmö	Environment department- strategy	Head
City of Malmö	City planning office- planning	Officer
City of Malmö	City planning office-planning	Officer
City of Malmö	City planning office-strategy	Officer
City of Malmö	City planning office-building permit	Officer
City of Malmö	Environment department- strategy	Officer
City of Malmö	Traffic and property management department-Exploitation and development	Officer
City of Malmö	Traffic and property management department- Exploitation and development	Officer
VA Syd	Waste management unit	Officer
Spacescape	Fascilitator	Officer

participating in the process was desired. Based on these two criteria, a priority list of candidates was drawn up and the candidates were then contacted. In total 12 people were interviewed, all of whom were first-choice candidates; ten represented the municipal organization; one person the local waste and water management organization, and one was the facilitator who participated in the initial phase of the project. The majority of the interviewees represent the municipal officer level, while three interviewees were head of core administrative units (Table 2).

4. Results—Institutional capacity building in the Smörkajen process

Based on the Malmö strategy for localizing the SDGs (Malmö City, 2018) the city strives to convert and localize the SDGs into the municipal governance structure including processes of spatial and city development. A pioneering project has been the development of Smörkajen, part of Nyhamnen. The pre-planning process of Smörkajen has been described as a pilot project with the ambition to explore new forms of collaboration and working methods, to meet sustainability challenges in the development of the city. As part of process, a cross-administrative working group within the municipality of Malmö was established. The role and responsibility of the group was formed over time with a pre-condition to integrate and localize the SDGs into a spatial planning process. Three outcomes were to be developed to support the traditional planning process: (1) a framework for value-based urban development¹, (2) a sustainability strategy, and (3) a land allocation programme. The process of localizing the SDGs was primarily to be part of the

¹ Platform for Smörkajen—process and values-led urban planning approach for Smörkajen, Malmö.

sustainability strategy, and thus we only focus on the sustainability strategy in this paper.

The analysis of localizing the SDGs in the development of Smörkajen is based on an assessment of the process in terms of institutional capacity building. This framework of assessment embrace the overarching Malmö strategy for localizing the SDGs, highlighting participation for learning and knowledge development as well as mobilization, i.e., capacity to integrate the SDGs into regular spatial planning processes, making these goals a guiding principle and basis for prioritisations in the Smörkajen area. The framework stresses that relational capacities, as well as broad and integrated knowledge capacities, are required to develop a shared direction for action, in this case a sustainability strategy based on the localized SDGs, in order to enforce mobilization and an implementation of the SDGs in the traditional spatial planning process.

4.1. Relational capacities

The Malmö strategy for localizing the SDGs (Malmö City, 2018) states the need for a broad participation for learning. In line with this, a cross-administrative working group with representatives from several units was formed, including representatives from the city planning office, the municipal traffic and property management department, the municipal environment department, the municipal culture department and VA SYD (the inter-municipal association responsible for waste and water management) (Figure 2). According to the project plan, the choice of which departments and administrative units to involve was based on previous collaborative spatial planning processes. The work in the group was led jointly by representatives from the city planning office and the traffic and property management department, and the overarching coordination of the process was given to a steering group consisting of the heads of units representing these departments. During the first year, an external facilitator was hired to moderate the discussions.

The working group met regularly from 2017 until 2020 in a former ferry terminal within the Smörkajen area. The interviews indicate that this location was perceived as a “free space” outside the normal office environment, supporting creative, open discussions. The meetings were planned for two consecutive days per month with an agenda emphasizing progress made so far, decisions taken, next items to discuss and what steps to take. Interviewees described the process as exploratory, and workshops as being used to test new ideas or ways of working, to create consensus, and to provide shared visions and priorities. To actually meet and discuss verbally with other participants, rather than answering a remittance or other written documents, was appreciated.

Each meeting with the working group included 15–20 participants representing the participating municipal departments and administrative units. Over time, individuals left and joined, which meant that the changing composition of participants posed challenges such as frequently having to remind participants of the process and decisions taken. Nevertheless, newcomers grew into their role and developed a sense of ownership of the process and its results. The majority of the participants described themselves

as knowledge supporters, contributing to a shared process with expertise within their respective fields. The atmosphere in the working group was described as open and friendly by the majority of the participants, supporting good relations and with an ambition to develop a common understanding across the different departments. Participants were able to ask “stupid questions”, thus making it possible to develop shared ideas, based on all participants’ knowledge and expertise.

Over time, the relationship between the participants in the working group developed into collaborative processes, identifying challenges and solutions in the process of localizing the SDGs. A major insight in this process was the shared understanding of not being able to include all SDGs in the final sustainability plan, but to rather focus on a few. According to calendar invitations and meeting minutes, and confirmed by interviewees, the process further supported innovative ideas on how to meet sustainability in key areas, e.g., how to enable high marine biodiversity, using culverts for main infrastructure, or sharing waste heat between different buildings. The participants described the dialogues as beneficial, supporting the interlinkages within the urban context. This is emphasized by 58% of the participants agreeing that the cross-administrative approach should be repeated more often.

“What we maybe need more of, and that is not only valid for Malmö but all cities and organizations, if we are to work in large and complex projects, is to meet and discuss in a larger group, not least since all questions are connected: planning, implementation, sustainability, and to create a common vision...”

Nevertheless, more than 40% of the interviewees mentioned that the process was considered ambiguous and the expected outcome vague. It was not clear to what extent the results of one workshop were incorporated into the steps that followed. Over time, the process matured and, whereas the initial phase of the process dealt entirely with defining and delineating the broad and conceptual boundaries, the later stage of the process was characterized by the setting up of smaller groups working on more specific tasks. One of the smaller groups was given the responsibility to develop, or co-create, the details of the sustainability strategy of Smörkajen; this group included representatives from the environment department, the city planning office, the traffic and property management department and the culture department.

4.2. Knowledge capacities

In addition to participation and relation-building for mutual learning, the Malmö strategy for localizing the SDGs (Malmö City, 2018) emphasizes the need for increased knowledge for conscious decisions. Such knowledge building was supported by an exchange of knowledge among the participants and by involving external expertise in the process. The participants in the working group brought experience and knowledge from different areas into the process, and the knowledge exchange of participants with complementary expertise contributed to an increased awareness of sustainability at the city level. The professions represented in the working group included, among others, architects, property

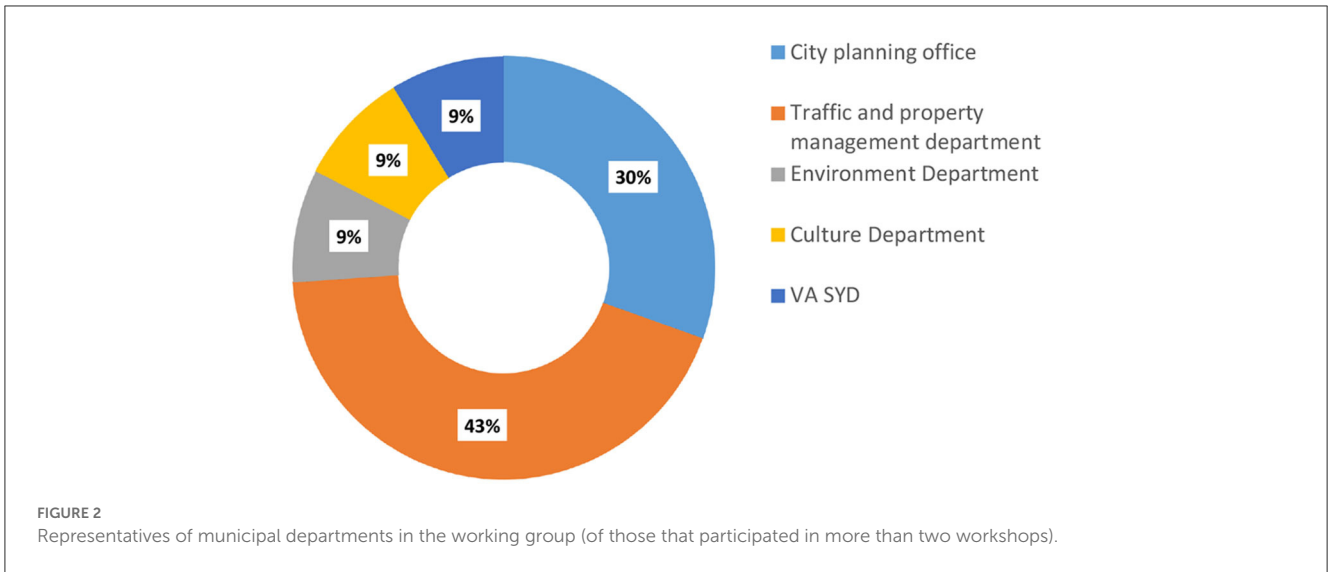


TABLE 3 Actions for the advancement of knowledge.

Topic-specific workshops (selected themes)	Knowledge on marine ecosystems Floodable quay zones The integration of ecosystem services into the built environment Technical solutions for renewable energy production and usage Land allocation agreements Land allocation agreements Suitable building volumes Social sustainability Measures to encourage social interaction
Topics of invited guest speakers (selected)	Marine ecosystems Waste water management Sustainable energy systems Density in cities Quay management

development engineers, landscape architects, traffic engineers, waste management specialists, environmental specialists, and communication specialists. This specific expert knowledge was integrated in the process through topic-specific workshops (Table 3). According to the interviewees, the experience and knowledge among the participants covered a broad range of areas and broad perspectives on sustainability, as well as more specific, often technical, experience and knowledge. The participants also provided experience from past spatial planning processes within the municipality, and knowledge on various working methods.

In addition to internal knowledge exchange, external expertise was intertwined in the process of knowledge building through reading lists, invited guest speakers (Table 3), and study trips, as indicated by meeting invitations and minutes. Expert knowledge was integrated in the process through topic-specific workshops (Table 3), and sustainable urban development and processes of localizing SDGs in other cities, such as Copenhagen, Gothenburg and Växjö, were also discussed. Interviewees mentioned explicitly that external speakers from other cities (Amsterdam, Copenhagen, Gothenburg and Växjö), consultancies, knowledge NGOs, the local Marine Education Center in Malmö and the energy company E.ON,

contributed to awareness and knowledge amongst participants. Interviewees also pointed out that the external input provided a push toward higher ambitions in relation to the Smörkajen development. The exchange of knowledge among the participants and the inclusion of external experience and knowledge was, according to the interviewees, enhanced by the external facilitator, challenging the participants to engage and support. As stated by one of the interviewees:

“He came as an injection, to try to turn and twist and come in with extra eyes.”

4.3. Mobilisational capacities

The ICB framework emphasizes the role of mobilization capacity, emerging from relational capacities and knowledge capacities, in progressing transformative change. Mobilization capacity can be expressed in different ways (see Section 2), building on learning processes and generation of agency by the capacity to unify stakeholders behind common goals. In the case of Smörkajen, the goal was to formalize such learning and agency in a Sustainability strategy to be used in the processes of scaling, translating and mainstreaming sustainability in the development of Smörkajen and the entire Nyhamnen area. Based on localized SDGs, the sustainability strategy was to provide a direction as well as to define prioritized sustainability goals, targets and suggested measures for the area, to be integrated into the spatial planning, development and use-phase of Nyhamnen. According to the project plan, the sustainability strategy was to be aligned with, or even overarch, the legal planning and development documents to guide the spatial planning of Nyhamnen.

The process of localizing the SDGs started at a general level, presenting the SDGs as a whole, followed by considerations of which of the SDGs were most relevant in the Smörkajen context and which ones would have the greatest positive impact on the site. These discussions were carried out involving all competences

BOX 1 Prioritized SDGs for the Smörkajen development in Malmö.

The text below describes the three prioritized SDGs and how these relate to the development of Smörkajen.

Introduction to SDG 11. Sustainable cities and communities

Smörkajen will be a welcoming, warm part of Malmö, providing a safe, equal and inclusive urban environment where people with different backgrounds can live, work and visit. A varied range of housing will be offered; places for a growing businesses and services as well as appealing and multifunctional public places offering various ecosystem services will be provided. The urban environment needs to be inclusive, to attract people to linger and thus enable different forms of social interaction on equal terms by creating high quality, safe meeting places. Current and future climate challenges are Smörkajen's starting point for implementing solutions regarding climate protection, microclimate, buildings' physical performance and choice of energy system. The work on the development and establishment of Smörkajen must be equal and inclusive at all levels, both internally, within the city, and externally, for Malmö residents and businesses. This will be achieved through collaboration, participation and strategic investment.

Introduction to SDG 12. Sustainable consumption and production

Smörkajen will be developed so that those living here can contribute to providing future generations with continued opportunities for a good life. Conditions must be created for a fossil-free, non-toxic living environment with minimal negative impact on people and the environment. In Smörkajen, it should be easy to live a sustainable everyday life through sustainable consumption and production solutions in order to minimize the ecological footprint. Energy consumption and climate impact must be minimized both in the construction of and in the use and maintenance of the built environment. Practical solutions must be identified to achieve a sustainable lifestyle, resource utilization must be reduced through flexible structures and robust solutions.

Introduction to SDG 14. Ocean and marine resources

Multifunctional greenery and blue environments must be embraced and designed in Smörkajen to create high quality housing and recreational opportunities, promote biodiversity and create resilience to current and future climate challenges. As far as possible, climate change must be challenged, acknowledged and given meaning to contribute to high quality of life in the area. Being able to see and experience weather, wind and water is part of life in Smörkajen and there are many opportunities. Water must be in focus and turned into a resource for Smörkajen.

that were present in the working group and discussion results were cross examined and re-evaluated within the group. The purpose of the process design was to create a common understanding and to involve and mobilize all participants in developing the strategy, creating a common ownership. In December 2017, the working group decided to focus the sustainability strategy on five SDGs (5, 11, 14, 12, 16), reasoning that it was necessary to find a manageable way to work with the SDGs. In December 2018, the working group decided to reduce the number of SDGs from five to three (Box 1). The reasoning to go from five to three was mainly to reduce the complexity in the use of the goals, but also to develop a clear outreach communication for the development of the area, focusing on key aspects of the area, i.e., sustainability in cities (SDG 11), the connection to the water front (SDG 14) and a more circular construction and city development (SDG 12). At the same time, the indicators and targets of these three SDGs also address other

SDGs. As an example, the indicators and targets under SDG 12 (Sustainable production and consumption) do not only address SDG 12, but also SDGs 2, 3, 5, 6, 7, 9, 10, 13, and 15. The selection of the three goals will therefore provide a more comprehensive profile of sustainability than the SDG 11, 12 and 14 alone. According to the interviews, the decision to prioritize three goals was strongly supported by all members of the working group.

The process of localizing the SDGs was described by the interviewees as sound, and there was a logic in how workshops and discussions followed each other. Interviewees (75%) were positive to the idea of having a sustainability strategy based on localized SDGs, but there was uncertainty over the role and function the strategy, where in the process it was to be used and in which way it should influence decisions to be made later in the process. Some of the interviewees (33%) even claimed that parts of the strategy could appear too difficult to manage through standard operations, i.e., adding sustainability aspects and an extra layer in the spatial planning process. The interviewees (33%) highlighted the risk of such a strategy competing with other guiding documents within the municipality at different levels.

At the same time, the majority of interviewees (67%) were supportive of the development of a sustainability strategy based on the SDGs and a comprehensive profile of sustainability. More specifically, the interviewees strongly supported the process of a cross-administrative process of representatives of different professions and disciplines, which opened up for discussing and identifying alternative solutions and innovative ways of working while maintaining high levels of ambition.

In 2020, the pre-planning of Smörkajen was finalized and a draft of the sustainability strategy "Smörkajen Sustainable visions and goals" was presented. The vision of the strategy stated that Smörkajen was to act as the district's showcase for a good living environment for both people and nature and was aligned with the three prioritized SDGs. The three prioritized goals were not only seen to have a role to play in that they defined the ambitions, but they should also be helpful in addressing conflicting goals and form the basis of the area's land allocation and development agreements. In addition to the sustainability aspects, the sustainability strategy addressed architectural values such as the need for a dense city, a green city and an inclusive city; this to reach out to all members of the working group with different professions. According to the interviews, the support for the strategy as a whole was strong in the working group. The document was envisioned to guide the city of Malmö, as well as construction companies and their partners in their work to apply the SDGs and to contribute to Malmö's efforts to become a sustainable city.

Nevertheless, when the development of the Smörkajen area moved into the 'ordinary' urban planning and development phase, it was decided not to adopt the strategy officially as a stand-alone document, complementing the traditional planning documents.² The agreed content was instead to inspire how sustainability aspects are to be integrated in the traditional, legally required, development documents, such as the spatial plan and the land allocation programme. The recommendations and requirements developed as

² The strategy has not been published but a draft version can be provided on request by the city of Malmö.

part of the sustainability strategy were to be considered to the extent the spatial planning documents and processes allowed.

5. Discussion

The process of localizing the SDGs in the spatial planning of Smörkajen was based deeply in Malmö's commitment to align with Agenda 2030 and the city's strategy for localizing the SDGs (Malmö City, 2018). The process was conducted following an inclusive approach that opened up for, and was met by, high levels of trust, fostering relation-building within the municipality, spanning over several municipal departments and administrative units. The interviews indicated that the relationships between the participants were very good, and that the participants were open-minded and accepting of the challenges that were put to them. Despite the fact that individuals were leaving and joining the group, there was no indication that that had a serious negative impact on the group dynamics. The level of trust between the participants was high throughout the process. The main reason for this can be interpreted as a long tradition of cross-administrative collaboration, the comprehensive structure of the SDGs and need for collaboration, and the sensitivity and flexibility in forming the process over time.

The knowledge base that the group brought into the process was broad, with many different competences represented for finding new and innovative solutions. The applied working method supported knowledge capacity and mutual learning, building on internal knowledge exchange and a diversity of competences to merge knowledge and experience from various departments and administrative units. The process allowed for tacit knowledge in the form of experiences of past, space and context-specific sustainable development processes being pooled to the participants. Through the process of knowledge capacity building, external experts were frequently brought in. The process of localizing the SDGs was furthermore aided by utilizing an external facilitator who facilitated focused discussions and the delivery of results on time. The process was characterized by many strengths, such as the merging of knowledge from various sectors, by analyzing past experiences and considering strengths and weaknesses of previous urban planning processes, and by supplementing with external expertise when necessary. Most notable was the participants' willingness to accept, consider and merge the available knowledge and adapt it to the context-specific challenges in Smörkajen to form a structure of SDGs.

In all, the process was collaborative resulting in cross-administrative co-creation processes of localizing the SDGs and relational and knowledge capacities were cumulated in defining consistent SDGs for Smörkajen. This output of the process was the result of mutual learning, forming the foundation for future agency and capacity to act. This was the first time that Malmö used the SDGs as a foundation for sustainability in (pre) spatial planning. Initial fears of having to address the high number of goals and targets of the SDGs were overcome by prioritizing three of the goals, yet illustrating that by focusing on these three goals even other goals will be addressed through indicators and targets of the three prioritized SDGs. Likewise, the challenge of the

vague nature of the SDGs was dealt with when localizing these to Smörkajen, re-defining them to suit the local context. Interviews indicate that participants felt that the process of localizing the SDGs added beneficial input to foster sustainable urban planning and development work with the potential to unify stakeholders.

The selection of only three SDGs was strongly supported by the participants arguing the need to find a manageable way to work with the SDGs. The three goals selected were chosen to embrace the quality of the site by the sea (SDG 14), and sustainability of the city in general terms (SDG11), as well as with a focus on sustainable consumption and production (SDG 12). Altogether, these goals addressed sustainability in a holistic perspective including indicators and targets.

Although the interviews gave an indication of a strong process in terms of relation-building, knowledge and mutual learning, participants expressed challenges in the implementation of the sustainability strategy. The role of the strategy was uncertain right from the start in terms of who should be the sender and spokesperson; moreover, the target audience, having been defined as actors responsible for implementation during spatial planning, development and use-phase, was felt to be too broad. This was overcome in the end by the decision not to designate a formal, overarching or complementing status to the sustainability strategy but rather to let its content inspire the legally required planning and development documents, yet without specifying how such guidance should be expressed. The strength in doing so would be the avoidance of several layers of steering documents in the urban planning process, which may have caused problems in the interpretation and use of traditional steering documents. Instead the decision was to include selected aspects of the sustainability strategy and localized SDGs directly in the traditional steering documents, i.e., spatial plan and land allocation plan. The weakness of this decision was the limitations in addressing the full process and results of the localized SDGs (including indicators and targets) in these legal documents.

Summarizing the processes of localizing the SDGs in the context of spatial planning presented in this paper, the global goals seem to have the potential to provide a shared vision of sustainability, to unify different municipal departments' interests and goals, and to inspire new, more inclusive, ways of planning. The link to an international sustainability agenda, i.e., the global SDGs and Agenda 2030, also strengthens high ambitions at the local level in the city's urge to become more sustainable. Nevertheless, the case of Smörkajen confirms the difficulties in modifying highly formalized process, such as spatial planning, as indicated in the literature by, for example, Hrelja et al. (2015). The fact that the foreseen sustainability strategy did not become a formal document for spatial planning and development in Smörkajen, further confirmed the concerns expressed by the participants already early on in the process. A lesson learned from experience of the pre-planning project in Smörkajen must be that the possibilities of opening up for flexible solutions in formal processes, such as spatial planning and development, should be initiated early on in the process. Moreover, modifications in processes guided by legally required planning and development may also need to include authorities at a national level that can open up more flexible solutions in formal and legally binding processes.

Furthermore, the analysis of the localization process in Smörkajen indicates that the high number of SDGs is difficult to manage and that there is a risk of neglecting, possibly unintentionally, important aspects. For the Sustainability strategy of Smörkajen, three SDGs were prioritized. The strategy argues in favor of the remaining 14 goals also being addressed, yet there remains a risk that the holistic perspective of the SDGs in their entirety is lost in favor of manageability.

6. Conclusion

The research presented in this paper address the research gap on the use of localized SDGs in spatial planning, and the use of cross-administrative process to overcome difficulties in integrating sustainability into traditional planning processes. The focus of the study was on cross-administrative process in terms of relational capacity building and the development of mutual learning, to mobilize sustainability. The results showed how a broad representation across various departments and administrative units within the municipality, as well as the inclusion of external expertise, provided essential knowledge capacity to capture the wide aspects of sustainability in the specific context of Smörkajen. The use of the SDGs was appreciated and unified stakeholders behind common goals. Whereas the process successfully provided a first draft of a sustainability strategy based on the localized SDGs, the strategy was not formally adopted as a formal document to complement the traditional spatial planning documents and processes. The decision not to make the sustainability strategy a formalized document in the process of spatial planning and development, confirmed the difficulties in modifying formal municipal governance structures (Hrelja et al., 2015). Nevertheless, the interviews indicated already from start in the project an uncertainty regarding the role that such a sustainability strategy may have in relation to established legal spatial planning and development documents, as well as fears of an additional burden of bureaucracy that such a document may have in the planning process. The decision not to use the sustainability strategy as a formal document resulted in a modified result of allowing for optional aspects of the strategy and localized SDGs in the traditional steering documents, i.e., spatial plan and land allocation plan. This provided flexibility, yet an uncertainty regarding if and how the localized SDGs are to be implemented. In all, the results of this paper stress the challenges in mobilizing and implementing localized SDGs into the traditional processes of spatial planning and development, even with a cross-administrative planning process. The results call for further research, as well as for additional experimentation, on processes of localizing SDGs

in spatial planning. One avenue for further development may be to reach out to authorities at a national level to allow for more flexibility in formal and legally binding planning processes. Future research may, however, be even broader and suggest other alternative ways to rethink traditional processes of spatial planning and development to allow for sustainability requirements and pathways.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

LN and RZ designed the study, jointly discussed the analysis and the results and written the manuscript. RZ collected and analyzed the data. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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