

Social Innovation Scaling at Urban Level



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Abstract How can social innovation initiatives in cities be scaled to provide systemic and enduring impact on reducing GHG emissions? Academic and practitioners' literature offers a number of conceptualizations of social innovation scaling strategies, including the popular “scaling up, out and deep” framework. In this chapter, scaling methods are presented to support cities to amplify social innovation impact. Based on cities' social innovation readiness level, social innovation pathways can range from preparatory phases—including capacity building and mobilizing funds—to mapping the ecosystem, and to systematically embedding social innovation for climate neutrality in all cities' activities, including communication strategies, public procurement, circular economy, urban planning, and policy co-creation.

Keywords Scaling strategies · Pathways · Systemic innovation

Stimulating social innovation on a city level is regarded to be particularly beneficial for reducing greenhouse gas emissions (Coutard and Rutherford 2010). Local governments can act as intermediary actors, helping energy communities and other grassroots social innovation initiatives to initiate new projects and local networks, provide tools, resources and professional services, manage and evaluate funding programs, and connect these initiatives to policymakers and other relevant stakeholders (Hargreaves et al. 2013).

However, expanding the impact, or scaling up the activities of promising local initiatives, is a challenging task. For the initiatives, it is difficult to grow independently when not encapsulated in an *enabling ecosystem*, which can provide them with social, cultural and technological support (Manzini 2015). Although cities could

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play a pivotal role in facilitating or stimulating such ecosystems, public administrators might not have the manpower and/or expertise available in-house to provide this support. Several scaling strategies have been identified in the NetZeroCities project that could be beneficial for cities, to help them make informed decisions that can provide meaningful support to local social innovation initiatives, and to embed social innovation in a systemic way into a city's plans.

1 Strategies for Scaling Social Innovation

In the past decade, a number of approaches have been developed by scholars and practitioners, which could be useful for cities to consider when scaling up social innovation initiatives. In this chapter, we provide an overview of four popular frameworks: (1) *Scaling up, out and deep* (Moore et al. 2015), (2) Nesta's *Make it big framework with four routes to scaling social innovations* (Gabriel 2014), (3) The World Health Organization's *Scaling up framework* (2010), and (4) *Mapping the ecosystem with a city observatory* (Andion et al. 2022).

A review of each scaling strategy and related illustrative cases is provided next.

1.1 *Scaling Up, Out and Deep*

Moore et al. (2015) distinguish three types of strategies for scaling impact: scaling up, out and deep (<https://netzerocities.app/resource-3953>).

When *scaling out*, initiatives or organizations use replication and diffusion to expand to a larger geographic area through two main strategies. First, by deliberate replication, which entails spreading or replicating programs both numerically and geographically, while maintaining the core principles of the innovation. Second, by spreading the innovation's principles, but adapting it to local contexts through co-creating knowledge, social media and educational platforms.

Initiatives that are *scaling up* operate on the assumption that social issues go beyond their local contexts, and should be addressed by modifying their systemic or institutional basis. Efforts should therefore be focused on advocating for change or attempting to change or develop new legal frameworks or policies. To scale up, partnerships for advocacy can be developed to strengthen the effectiveness.

Scaling deep entails changing people's cultural norms, beliefs and relationships by generating and spreading 'big' cultural ideas, thereby consciously reframing dominant narratives on particular issues. For example, through sharing knowledge and practices through learning communities, learning platforms and participatory approaches. In addition, investing in transformative learning can be used to promote the innovation to other organizations, engraining its associated beliefs and practices. Methods that can be used to facilitate this are mentorship, sharing organizational or community culture, and shared reflection and evaluation, among others.

Moore et al. indicate initiatives tend to focus on scaling out in their beginning phase, whereas when more significant system change needs to take place, initiatives shift more towards scaling up and/or scaling deep.

1.2 Nesta's 'Make It Big' Framework: Four Routes to Scaling Social Innovations

The UK-based social innovation agency Nesta has developed a framework which outlines four routes that can be followed to construct a scaling strategy (Gabriel 2014): *influence and advise*, *build a delivery network*, *form strategic partnerships*, and *grow an organisation to deliver* (<https://netzerocities.app/resource-3852>).

The *influence and advise* route is recommended for social innovations that are based on principles or utilize methods that can be deployed in different contexts and/or social innovations that challenge the prevailing norms. As there might not be direct contact between the innovator and those that are using the innovation, the amount of control of how it is implemented is low. However, the advantage of this route is that it can potentially reach a wide audience.

The *build a delivery network* route is suitable for social innovations which feature elements that consist of similar activities, such as transferring knowledge or community building. The innovations or practices are spread by 'delivering' them to their audiences through a network which focuses on replication or in some cases social movements. The focus here lies on creating a common feeling of purpose, while at the same time ensuring that the innovation stays truthful to the original idea. Examples of these networks are federations and communities of practice.

Scaling through partnering with other organizations is the main characteristic of the *form strategic partnerships* route. In doing so, certain new technologies and skills, which would take a long time to develop, become instantly accessible. Being taken over by government organizations or partnering with large multinationals are common examples of this route. Although this type of scaling provides an opportunity for social innovation initiatives to scale up quickly, it can require some adjusting in order to become successful.

The *grow an organisation to deliver* route is the most suitable choice for organizations which rely on (individual) knowledge that cannot be replicated easily. This route entails growing the organization itself and therefore direct control over the spread of innovation is possible. For larger organizations, this would entail scaling through existing channels and sources, whereas smaller organizations would need to diversify their activities, which might be more challenging from a management point of view.

The four routes do not necessarily have to be followed individually, at times they can overlap or some routes can be followed simultaneously, with some social innovators choosing to scale their organization using all four routes at the same time. The core insights of Nesta's framework is the acknowledgement that scaling is not

just about growing an organization, but rather growing its impact. The framework highlights that scaling up requires social innovators to work in a different way, requiring competences in change management.

1.3 WHO Scaling Up Framework

Drawing from related fields, the scaling up framework developed by the World Health Organization (WHO) aims to facilitate the planning and management of the upscaling process and is based on literature and on WHO's extensive international experience (World Health Organization WHO 2009, 2010; <https://netzerocities.app/resource-998>).

The framework is an actionable tool for cities to consider main issues central to scaling up social innovations and other types of people-based innovations for climate neutrality. It views scaling up as a system of interrelated elements and strategic decisions that have to be made: the (social) innovation to be scaled up, the institution/organizations that will adopt and implement it on a larger scale, the external conditions and institutions that will affect the prospects for scaling up (environment), and the individuals and organizations that will promote and facilitate wider use of the innovation (resource team). Once these elements have been identified, the strategy can be designed, which entails determining the resources necessary in terms of finances and capacities, the aspects of the process, such as the scope, speed, and degree of participation as well as the method of dissemination, monitoring and evaluation.

More specially, the WHO scaling framework consists of nine steps (WHO 2009): (1) Planning actions to increase scalability and innovation; (2) Increasing the capacity of the user organization to implement scaling up; (3) Assessing the environment and planning actions to increase the potential for scaling up success; (4) Increasing the capacity of the resource team to support scaling up; (5) Making strategic choices to support vertical scaling up (institutionalization); (6) Making strategic choices to support horizontal scaling up (expansion/replication); (7) Determining the role of diversification; (8) Planning actions to address spontaneous scaling up; (9) Finalizing the scaling strategy and identifying next steps (WHO 2009).

The WHO framework has been used to plan and assess health service innovations, and can provide a systematic and holistic view on the elements that can be considered, helping to identify the actions and decision that can be made to designing a strategy for scaling up. It was developed in conjunction with NGOs and international agencies (2010) for the purpose of providing a tool that can provide a structured, systemic view of scaling up.

1.4 Social Innovation Observatory

Before cities can determine which initiatives to scale up or how to support them in doing so, it is beneficial to have a comprehensive overview of the current social innovation initiatives within a city. A *social innovation observatory* can help cities to map and analyze local social innovation ecosystems (<https://netzerocities.app/resource-3842>). In Florianópolis, Brazil, such an observatory has been constructed in the form of a collaborative digital platform (Andion et al. 2022). Figure 1 provides a screenshot of the digital map created by the social innovation observatory of the city (<https://observafloripa.com.br/reports#toppage>).

Social innovations are geographically mapped using a variety of sources, including public programs for the promotion of social innovation, and by inviting the city’s social innovation actors to map themselves and their network. With such mapping, network and organizational data can be analyzed for informing policies and measure initiatives’ results.

The observatory development process in Florianópolis started by investigating the current laws, regulations, policies and public programs regarding social innovation. This was supplemented by interviews with the main actors within the city that support social innovation as well as collecting publicly accessible information about social innovations. In addition, site visits to the initiatives were conducted in order to gain insight in the issues they face, their proposed solutions, their methods and technologies used, and how they measured their results, among others.

Not only innovations were mapped but also support organizations, which belonged to ten categories: (1) training centers; (2) promotion of social entrepreneurship; (3) research and extension centers; (4) funders; (5) technical supporters; (6) articulators



Fig. 1 A map from the Florianópolis’ social innovation observatory

and bridging actors; (7) spaces for communication, dialogue, and reflection; (8) incubators; (9) accelerators; and (10) certifiers.

Cities can develop a geographical map of social innovation initiatives with available technologies, such as Google Maps API; the methodology deployed for developing the Florianopolis social innovation observatory is further described by Alperstedt and Graeff (2019).

2 Pathways for Scaling

The above reviewed frameworks can provide cities with a comprehensive and informative overview of scaling strategies. Which scaling routes are the most appropriate depends on a city’s readiness level, available resources and long-term objectives. As presented in Chap. 2, cities can act according to three main profiles: the enabler, the mediator and the visionary. To equip cities with a compact but comprehensive map of social innovation routes to scale, we developed the NetZeroCities *Social Innovation Actionable Pathways*, composed of ten subsequent categories according to three phases: prepare, act and scale. Figure 2 shows an interactive map of the categories along the phases, and specifies related case studies and indicators available on the NZC platform (<https://netzerocities.app/resource-4074>).

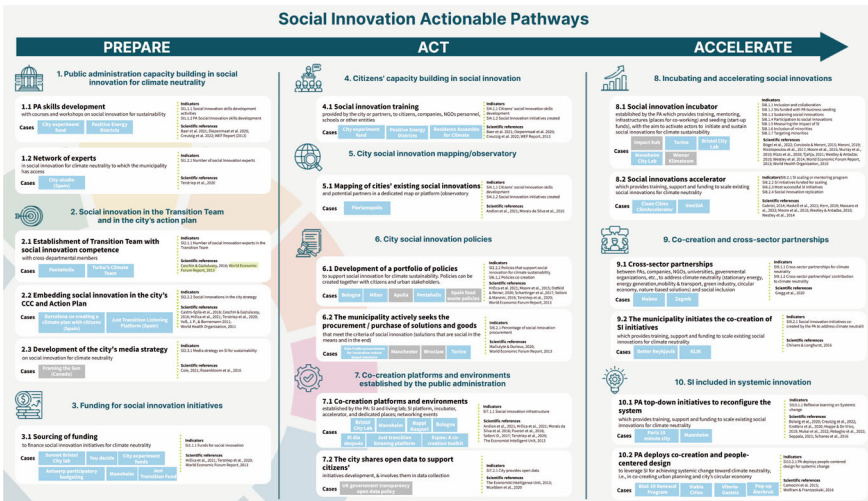


Fig. 2 Interactive graph of Social Innovation pathways to climate neutrality (<https://netzerocities.app/resource-4074>)

2.1 Phase: Prepare

Category 1: Public administration capacity building in social innovation for climate neutrality is composed of two subcategories: (1.1) PA skills development with courses and workshops on social innovation for sustainability and (1.2) Network of experts in social innovation for climate neutrality to which the municipality has access. Case studies that illustrate these respective categories include City experiment funds, Positive Energy Districts (presented in Chap. 5), and City-studio (Spain).

Category 2: Social innovation in the Transition Team and in the city's action plan is composed of (2.1) Establishment of Transition Team with social innovation competence with cross-departmental members, (2.2) Embedding social innovation in the city's CCC and Action Plan and (2.3) Development of the city's media strategy on social innovation for climate neutrality. Examples of these principles are outlined in the case studies PentaHelix (presented in Chap. 5), Barcelona co-creating a climate plan with citizens (Spain), the Just Transition Listening Platform (Spain) and Framing the Sun (Rosenbloom et al. 2016).

Category 3: Funding for social innovation initiatives, is composed by the subcategory (3.1) Sourcing of funding to finance social innovation initiatives for climate neutrality, illustrated by the cases Sonnet Bristol City lab; You decide; Antwerp participatory budgeting; Mannheim; Just Transition Fund; City experiment funds.

2.2 Phase: Act

Category 4: Citizens' capacity building in social innovation is composed by the subcategory (4.1) Social innovation training provided by the city or partners, to citizens, companies, NGOs personnel, schools or other entities. Cases that illustrate this concept are City experiment funds and Positive Energy Districts.

Category 5: City social innovation mapping/observatory included the subcategory (5.1) Mapping of cities' existing social innovations and potential partners in a dedicated map or platform (observatory). The case study of Florianopolis observatory illustrated in Sect. 4.1.4, is a relevant example for this category.

Category 6: City social innovation policies is composed of the two sub-categories (6.1) Development of a portfolio of policies to support social innovation for climate sustainability. Policies can be created together with citizens and urban stakeholders and (6.2). The municipality actively seeks the procurement/purchase of solutions and goods that meet the criteria of social innovation (solutions that are social in the means and in the end). Cases that illustrate these concepts are: Bologna, PentaHelix, Spain food waste policies, and Oslo public procurement for innovative nature-based solutions.

Category 7: Co-creation platforms and environments established by the public administration has two sub-categories: (7.1) Co-creation platforms and environments established by the PA: SI and living lab; SI platform, incubator, accelerator, and

dedicated places; networking events, and (7.2) Open data sharing. Cases that illustrate these categories are: Bristol City Lab; Mannheim; Nappi Naapuri; Bologna; Just transition listening platform and the UK government transparency open data policy.

2.3 Phase: Accelerate

Category 8: Incubating and accelerating social innovations is composed of (8.1) Social innovation incubator established by the PA which provides training, mentoring, infrastructures (places for co-working) and seeding (start-up funds), with the aim to activate actors to initiate and sustain social innovations for climate sustainability and (8.2) Social innovations accelerator which provides training, support and funding to scale existing social innovations for climate neutrality. Relevant case studies for this category are: Torino, Bristol City Lab, Mannheim City Lab, Clean Cities ClimAccelerator and the Wiener Klimateam, which is illustrated in Chap. 6.

Category 9: Co-creation and cross-sector partnerships comprises the subcategory (9.1) cross-sector partnerships between PAs, companies, NGOs, universities, governmental organizations, etc., to address climate neutrality (stationary energy, energy generation, mobility & transport, green industry, circular economy, nature-based solutions) and social inclusion, and (9.2) the municipality initiates the co-creation of SI initiatives for climate neutrality together with citizens, local companies, NGOs or other local organizations, to address climate neutrality (stationary energy, energy generation, mobility & transport, green industry, circular economy, nature-based solutions) and social inclusion. Relevant illustrative cases include Malmo; Zagreb, Better Reykjavik and KLIK (reviewed in Chap. 5 of this book).

Category 10: SI included in systemic innovation is composed of (10.1) public administration top-down initiatives to reconfigure the system to support climate neutrality through a portfolio of social innovation initiatives (i.e., urban spaces design, circular economy, etc.), and (10.2) PA deploys co-creation and people-centered design to leverage SI for achieving systemic change toward climate neutrality, i.e., in co-creating urban planning and city's circular economy). Cases that illustrate these principles include Paris 15 min city, Mannheim, Viable Cities, Blok 19 Renewal Program, Vitoria-Gasteiz, and Wiener Klimateam—discussed in Chap. 6 of this book.

3 Reflexivity

Are social innovation interventions always successful? A reflexive attitude is crucial for cities—as well as for theory development—to be able to learn from the in-progress implementation of projects. Qualitatively and quantitatively assessing of social (and other) innovations' contribution to climate neutrality has the benefit of providing internal decision makers as well as the general public with evidence of the progresses

or issues to be adjusted. The NZC comprehensive indicators set (Neumann et al. 2023) can not only provide cities with a list of GHG and non-GHG indicators, but also with a list of qualitative reflexive, guiding questions (in the Appendix of the publication as well as in Mureddu and Bresciani 2022), which cities can select to support their internal sensemaking. Ten of the referenced case studies are reviewed in Chap. 5 of this book, while the remaining cases are available on the NetZeroCities portal (<https://netzerocities.app/resource-4074>). An extended explanation of all categories and related scientific reference and indicators of the social innovation actionable pathways is provided in Bresciani et al. (2023).

References

- Alperstedt GD, Graeff J (2019) Social innovation ecosystems and cities: co-construction of a collaborative platform. In: Hoowaldt J, Kaletka C, Schroder A, Zirngiebl M (Org.). Atlas of social innovation, 2aed., vol 1 TU Dortmund University, Dortmund, pp 125–128
- Andion C, Alperstedt GD, Graeff JF, Ronconi L (2022) Social innovation ecosystems and sustainability in cities: a study in Florianópolis, Brazil. *Environ Dev Sustain* 24:1259–1281
- Bresciani S, Tjahja C, Komatsu T, Rizzo F (2023) Social innovation for climate neutrality in cities: actionable pathways for policymakers
- Coutard O, Rutherford J (2010) Energy transition and city–region planning: understanding the spatial politics of systemic change. *Technol Anal Strateg Manag* 22(6):711–727
- Gabriel M (2014) Making it big: strategies for scaling social innovation. Nesta, London
- Hargreaves T, Hielscher S, Seyfang G, Smith A (2013) Grassroots innovations in community energy: the role of intermediaries in niche development. *Glob Environ Chang* 23:868–880
- Manzini E (2015) Design, when everybody designs: an introduction to design for social innovation. MIT Press
- Moore M-L, Riddell D, Vocisano D (2015) Scaling out, scaling up, scaling deep strategies of non-profits in advancing systemic social innovation. *J Corp Citizenship* 58:67–84. <https://doi.org/10.9774/GLEAF.4700.2015.ju.00009>
- Mureddu F, Bresciani S (2022) Report on Indicators & assessment methods for social innovation action plans. Deliverable 2.7. NetZeroCities EU H2020 Grant Agreement n°101036519. European Union, Brussels
- Neumann et al 2023. Neuman et al. (2022) Concept for a comprehensive indicators framework. NetZeroCities Deliverable 2.4.1
- Rosenbloom D, Berton H, Meadowcroft J (2016) Framing the sun: a discursive approach to understanding multi-dimensional interactions within socio-technical transitions through the case of solar electricity in Ontario, Canada. *Res Policy* 45(6):1275–1290
- World Health Organization (2009) Practical guidance for scaling up health service innovations. World Health Organization. https://expandnet.net/PDFs/WHO_ExpandNet_Practical_Guide_published.pdf
- World Health Organization (2010) Nine steps for developing a scaling-up strategy. World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/44432/9789241500319_eng.pdf

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