

Scaling Local Bottom-Up Innovations

Subjects: **Others**

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Bottom-up initiatives of active citizens are increasingly demonstrating sustainable practices within local ecosystems. Local urban farming, sustainable agri-food systems, circular supply chains, and community fablabs are exemplary ways of tackling global challenges on a local level. Although promising in accelerating towards future-proof systems, these hyper-localized, bottom-up initiatives often struggle to take root in new contexts due to embedded socio-cultural challenges.

co-creation

cross-cultural learning

innovation ecosystems

scaling strategies

1. Introduction

As societies worldwide are going through rapid and dramatic changes, cities around the globe are claiming a leading position in the transition towards more sustainable urban lifestyles needed to address the sustainable development goals. To keep up with the pace of our society's development, there is an urge to create urban systems that can fit human needs within the planet's possibilities ^[1]. Exemplary urban systems that can address global challenges at a local scale are urban food systems that can be conceived of as a set of activities ranging from production through to consumption ^[2]. Socio-economic ecosystems that illustrate the value of local co-production while tackling global challenges require 'new ways of innovation—a shift in thinking, doing and organizing' ^[3] (p. 573) to become resilient and future-proof. In this reality, cities serve more and more as a laboratory for experimenting with new ways to address global challenges on a local scale. In other words, cities can be seen as resilient socio-economic systems where different actors interact at different levels to tackle the so-called wicked problems ^[4]. In this regard, an increasing number of local coalitions are popping up in different cities across Europe to experiment with innovative solutions. These coalitions are oftentimes led by mixed groups of practitioners and active citizens who share the common goal of bringing social and system transformations to their respective contexts, for example ^{[5][6]}. Such local insurgent activism is also referred to as bottom-up initiatives or social innovation: 'new ideas (products, services, and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations in the civic context' ^[7]. The scaling of these types of mission-driven bottom-up initiatives is oftentimes perceived as a promising framework for achieving urban sustainability transitions ^[8], including the transformation of food systems. Despite the remarkable success of many bottom-up initiatives, their specificity and strong connection to their territories sometimes make it hard to scale their practices and achieve larger societal impact or system changes. In other words, the social impact sector is recently growing by 'building the capacities and culture for innovation, and, as a result, holds great promise for transformative breakthroughs' ^[9]. Herein, the premise was taken that transformative capacity can be built through value co-creation and experimenting with new ways to address global challenges on a local scale,

which is relevant to innovating current urban systems. To overcome contextual and local social challenges, multiple stakeholders and actors from different sectors find ways to collaborate and build the needed capacity for successful scaling, (e.g., through sharing learnings and exchanging experiences). Thanks to their dynamic nature, which integrates diversity through interaction in local networks, cities proved to be a fruitful context in which these collaborations occur and through which new tools, methods, instruments, products, processes, policies, and services are generated [10][11]. Next to that, the design field is evolving into a promising way of facilitating innovation in the public realm and triggering systemic change [6][8][11][12][13]. The value of design in tackling widespread global challenges for systemic change is drawing more and more attention [7][10][11][14], resulting in increased awareness and recognition of design-enabled innovation. Indeed, design is especially useful in the complex process of adaptation and value creation required for the systemic embedment of an innovative solution. Furthermore, it plays a vital role in acting toward change by diffusing the needed capabilities and empowering bottom-up, local initiatives to thrive [10]. In keeping with Scott [12], we refer to the integrated function of design that brings together a variety of skills, steps, and stakeholders who are involved in the urban context.

2. The Rise of Social Innovation Sector and Bottom-Up Local Initiatives

The social impact sector only recently started growing more by 'building the capacities and culture for innovation, and, as a result, holds great promise for transformative breakthroughs' [9] (p. 2). 'But for various financial, political, and organizational reasons, many effective approaches operate only at a small scale' [9] (p. 2). Indeed, one of the biggest challenges faced by social innovations that want to scale and achieve a larger impact relies on the lack of financial sustainability due to their size and structure. It is the case for most of the initiatives considered for this study, which are small and hyper-localized. Some of them rise as a solution for specific problems of a particular area or target group, while others are trying to tackle more general global issues (e.g., the crisis of values, crisis of democracy, climate change, and footprint) at a local level. Moreover, they are dependent on specific local resources [15] and embedded within the cultural norms, institutional routines, and values of a specific context. Additionally, these small-scale social initiatives face a lack of capabilities and resources, which hinder their potential to grow [16]. Consequently, replicating, expanding, or adapting the project to a new context is a challenge for bottom-up local initiatives, and several factors need to be considered when scaling, especially in a different environment. Hence, there is a need to address the question of what is being scaled in the first place, i.e., products, organizations, or impact and then uncover strategies for doing that.

3. The Concept of Scaling

This section unfolds the spectrum of scaling from a theoretical perspective and provides orientation regarding the various existing scaling strategies to better understand how social innovation can be replicated or scaled to have more impact. Scaling is generally used to refer to the growth of innovation. Following the Cambridge Dictionary, to scale something up can be generally defined as: 'to increase the size, amount, or importance of something, usually an organization or process' [17]. Whereas this is true for most types of business innovations whose scaling size

could be measured by the amount of profit generated, scaling social innovations and bottom-up local initiatives do require a different lens of inquiry and new strategies for success. For instance, by achieving a larger impact on society, which means being able to benefit and bring value to a larger pool of people [18], through innovation addressing and responding to social needs, while improving their overall quality of life [2]. In keeping with Moore and colleagues, scaling is not only about organic replication or adaptation (scale-out); to change the system, you have to change the rules of the game (scale-up) but also change the mindset and the culture of a particular 'institution' (scale deep) [19]. **Figure 1** shows different ways of scaling innovation and corresponding scaling strategies.

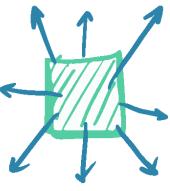
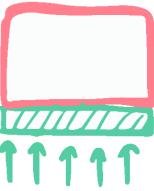
 <h2>SCALING OUT</h2> <p>'Impacting greater numbers'</p> <p>The main goal of this type of scaling is to reach out to a greater number of people and communities and improve their quality of life with 'innovation'. It is about going out of the initial 'context'.</p> <p>Considerations:</p> <ul style="list-style-type: none"> • <i>Where are you going to scale?</i> • <i>How many people do you want to impact?</i> • <i>What needs to be transferred?</i> • <i>What are the core principles of the initiative?</i> • <i>What are the successful elements of the idea?</i> 	 <h3>REPLICATING</h3> <p>Copying a proven product, process or business model. Introducing and implementing out of the initial context (e.g. new geographical location or target group) and then transfer it to multiple people.</p>  <h3>EXPANDING</h3> <p>Growing the initiative by operating on the idea itself and adapting it to different and new target audiences (e.g. adding new features, expanding throughout new sector domains..).</p>  <h3>DISSEMINATING</h3> <p>Dissemination, also recognized as generative diffusion, can take very different forms. The goal is to inspire others to innovate and trigger change. The 'diffusion' will be organic and generative: it could be seen as a sort of contagion, like a viral.</p>
 <h2>SCALING UP</h2> <p>'Impacting the institutional system'</p> <p>The goal is to change the institutions at the level of policy, rules, and laws.</p> <p>Considerations:</p> <ul style="list-style-type: none"> • <i>At which level do you want to have an impact?</i> • <i>What do you want to change in the current system?</i> 	 <h3>INTEGRATING</h3> <p>In this case the change will happen incrementally. The innovation will be adopted and slowly integrated into the current system. The goal is to find trade-offs and common grounds.</p>  <h3>DISRUPTING</h3> <p>In this case the innovation will bring up a radical change by disrupting the whole current system. It seems to happen suddenly but it actually requires other changes to happen in the landscape that opens up for this right moment to occur.</p>
	 <h3>NUDGING</h3>

Figure 1. Our conceptual scaling framework and corresponding strategies

SCALING DEEP

Scaling can have different 'meanings' and can take very different forms, namely: implementation (generating a sustainable business model for long-term impact), sharing knowledge with other communities (e.g., community of practice), and/or 'replicating across contexts' (e.g., replicating a successful practice in one hospital to another one)

The goal is to change the mindset, cultural values, and beliefs of the people as well as the relationships and connections within the system. The literature research on the concept of scaling and its strategies [21][22] shows that there is no 'one solution fits all' as scaling is a complex process [20][23]. To simplify this complexity, two essential steps can identify what scaling strategies have in common: for successful implementation, initiatives need to identify what to scale and decide how to do so [21][22].

Considerations:

- **What are the roots and the pillars you want to attack?**
- **What are the new values that the initiative is bringing up?**

However, scaling is a rather organic process depending on specific contextual circumstances. Indeed, bottom-up initiatives need to follow multiple 'steps' when scaling. However, these steps to implement a project successfully implemented in the context of origin to a new context with differences in local culture, institutions, regulations, citizens, and other cultural and social instances. By 'contextual factors' referred to anything influencing the innovation's scaling process, from the external world to aspects such as mindset and attitude, organizational culture, capabilities, goals, aspirations, and team dynamics [23]. Whereas these initiatives are deeply rooted in their original socio-cultural context, it is expected that, when replicating and implementing their practice in new contexts, bottom-up initiatives need to exchange cultural elements and co-create knowledge with the careful engagement of the local community [10][24][25]. Therefore, scaling requires the exchange of knowledge between multiple parties and stakeholders, an open mindset, acceptance, and collaboration.

Successful implementation requires learning how to get an intervention to reliably work in the hands of many different professionals working in different organizational contexts and with other cultures [26]. In other words, preserving the benefits a local context could provide without disrupting it while integrating the initiative into its network of stakeholders and citizen communities. When implementing bottom-up innovation in a new context, innovators need to integrate integrity without disrupting but preserving their mission, culture, and beliefs and align those with the community's local culture, needs, and values. Hence, scaling could be seen more as a process of matching the different aspects and elements, such as the needs of the citizens, interests, visions, goals, and aspirations. Therefore, building capacity, disseminating knowledge, and a culture of collaboration are key to achieving systemic change. If the goal is to disseminate knowledge, then guidelines, models, or a framework to initiate the replication somewhere else need to be provided [20], enabling other initiatives to scale through knowledge diffusion. However, the simple creation of passive guidelines could not be as effective as building capacity more collaboratively throughout co-creation activities and exchange. Indeed, as stated by Pierre Bourdieu: 'knowledge is socially constructed, and the human capability to capture and understand complex knowledge is culturally constrained' [27]. This step would entail building capacity and triggering a mutual learning environment between the parts involved. Collaboration and networks play a crucial role in enabling innovators to replicate the culture and disseminate knowledge to achieve a larger impact. In other words, to achieve systemic change and a larger impact on society, replicating a solution may not be enough and the exchange of knowledge through a collaborative culture is what is needed for mission-driven ecosystems to reach their goals. Whereas societal

challenges are deeply rooted in the behavior and perception of citizens, forming local networks and collaborating with multiple stakeholders is key to scaling and implementing innovations in new contexts [11].

References

1. van Genuchten, E.; Calderón González, A.; Mulder, I. Open Innovation Strategies for Sustainable Urban Living. *Sustainability* 2019, 11, 3310.
2. Erickson, P.J. Conceptualizing food systems for global environmental change research. *Glob. Environ. Change* 2008, 18, 234–245.
3. Mulder, I. Sociable smart cities: Rethinking our future through co-creative partnerships. In *Distributed, Ambient, and Pervasive Interactions*; Streitz, N., Markopoulos, P., Eds.; (DAPI 2014. Lecture Notes in Computer Science); Springer: Cham, Switzerland, 2014; Volume 8530, ISBN 978-3-319-07788-8.
4. Rittel, H.W.; Webber, M.M. Dilemma in a General Theory of Planning. *Policy Sci.* 1973, 4, 155–169.
5. Puerari, E.; de Koning, J.; von Wirth, T.; Karré, P.M.; Mulder, I.J.; Loorbach, D.A. Co-creation Dynamics in Urban Living Labs. *Sustainability* 2018, 10, 1893.
6. de Koning, J.I.J.C.; Puerari, E.; Mulder, I.; Loorbach, D. Landscape of Participatory City Makers. *For. Akad. Res. J. Des. Des. Educ.* 2019, 12, 1–15.
7. Avelino, F.; Wittmayer, J.M.; Pel, B.; Weaver, P.; Dumitru, A.; Haxeltine, A.; Kemp, R.; Jørgensen, M.S.; Bauler, T.; Ruijsink, S.; et al. Transformative Social Innovation and (Dis)Empowerment. *Technol. Forecast. Soc. Change* 2019, 145, 195–206.
8. Manzini, E. *Design, when Everybody Designs: An Introduction to Design for Social Innovation*; MIT Press: Cambridge, MA, USA, 2015.
9. Musa, M.; Rodin, J. Scaling Up Social Innovation. *Stanf. Soc. Innov. Rev.* 2016, 14, B2.
10. Concilio, G.; Cullen, J.; Tosoni, I. Design Enabled Innovation in Urban Environments. In *Innovation Capacity and the City, The Enabling Role of Design*; Concilio, G., Tosoni, I., Eds.; Springer: Cham, Switzerland, 2019; pp. 85–101.
11. Whicher, A. Design ecosystems and innovation policy in Europe. *Strateg. Des. Res. J.* 2017, 10, 117–125.
12. Scott, R. Innovation by Design. *IHS Jane Def. Wkly.* 2018, 55, 28–32.
13. Manzini, E.; Staszowski, E. *Public & Collaborative: Exploring the Intersection of Design, Social Innovation and Public Policy*, 1st ed.; DESIS Network, 2013; ISBN 978-0-615-82598-4. Available

online: <https://socialinnovationexchange.org/public-and-collaborative-exploring-the-intersection-of-design-social-innovation-and-public-policy/> (accessed on 4 July 2022).

14. Pel, B.; Haxeltine, A.; Avelino, F.; Dumitru, A.; Kemp, R.; Bauler, T.; Kunze, I.; Dorland, J.; Wittmayer, J.; Jørgensen, M.S. Towards a theory of transformative social innovation: A relational framework and 12 propositions. *Res. Policy* 2020, 49, 104080.
15. Mortati, M.; Villari, B. Design for Social Innovation: Building a framework of connection between Design and Social Innovation. In Proceedings of ServDes 2014 Service Future, the fourth Service Design and Service Innovation Conference, Lancaster University, Lancaster, UK, 9–11 April 2014.
16. Cangiano, S.; Romano, Z.; Loglio, M. The growth of digital social innovation in Europe. An Open Design approach to support innovation for the societal good. *Des. J.* 2017, 20, S3546–S3559.
17. Meaning of scale something up. In: Cambridge Dictionary. Available online: <https://dictionary.cambridge.org/dictionary/english/scale-up> (accessed on 9 September 2022).
18. Murray, R.; Caulier-Grice, J.; Mulgan, G. The Open Book of Social Innovation; The Young Foundation and NESTA: London, UK, 2010.
19. Moore, M.; Riddell, D.; Vocisano, D. Scaling Out, Scaling Up, Scaling Deep Strategies of Non-profits in Advancing Systemic Social Innovation. *J. Corp. Citizsh.* 2015, 58, 67–84.
20. Bradach, J.L. Going to scale: The challenge of replicating social programs. *Stanf. Soc. Innov. Rev.* 2003, 1, 19–25.
21. Mulgan, G.; Ali, R.; Halkett, R.; Sanders, B. In and Out of Sync: The Challenge of Growing Social Innovations; NESTA/Young Foundation: London, UK, 2007.
22. Alkemade, F.; Castaldi, C. Strategies for the Diffusion of Innovations on Social Networks. *Comput. Econ.* 2005, 25, 3–23.
23. Verganti, R. Design, meanings, and radical innovation: A metamodel and a research agenda. *J. Prod. Innov. Manag.* 2008, 25, 436–456.
24. Seelos, C.; Mair, J. What Determines the Capacity for Continuous Innovation in Social Sector Organizations? Rockefeller Foundation Report; Stanford PACS: Stanford, CA, USA, 2012.
25. Acs, Z.J.; Sany, J. Measuring the social value of innovation: The cases of Muhammad Yunus, Grameen Bank and Bill Gates, Microsoft. In *Measuring the Social Value of Innovation: A Link in the University Technology Transfer and Entrepreneurship Equation*; Libecap, G.D., Ed.; Emerald Group Publishing Limited: Bingley, UK, 2009; Volume 19, pp. 143–170.
26. Bryk, A.S.; Gomez, L.M.; Grunow, A. Getting Ideas into Action: Building Networked Improvement Communities in Education. In *Frontiers in Sociology of Education*; Hallinan, M., Ed.; Springer: Dordrecht, The Netherlands, 2011; Volume 1, pp. 127–162.

27. Huang, X. Understanding Bourdieu—Cultural Capital and Habitus. *Rev. Eur. Stud.* 2019, 11, 45–49.

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