



**AMMATTIKORKEAKOULU**

*University of Applied Sciences*



Ministry of Education and Culture

LAUREA-JULKAISUT | LAUREA PUBLICATIONS | 143



Tuija Hirvikoski, Laura Erkkilä, Minna Fred, Aino Helariutta, Ilkka Kurkela,  
Päivi Pöyry-Lassila, Kaisla Saastamoinen, Anna Salmi & Anne Äyväri (ed.)

**Co-Creating and Orchestrating  
Multistakeholder Innovation**

# 13. “The more you are willing to give, the more you also get” - How multifaceted, multi-stakeholder innovation ecosystems are governed and orchestrated, and how to research them?

Tuija Hirvikoski\* & Kaisla Saastamoinen

## INTRODUCTION

In order to govern global complex issues, i.e. innovating around the wicked problems (Rittel & Webber, 1973) requires a combination of diverse commercial and social innovation (Russo & Hughes, 2000). As no actor has all the necessary tangible and intangible resources to operate successfully in isolation, innovation calls for cross-disciplinary, cross-border, cross-sectoral collaboration (Mazzucato, 2018; Pera, Occhiocupo, & Clarke, 2016), which in this article is called *participatory multi-stakeholder innovation*. Both practice and theory (Edwards-Schachter, 2016; Hirvikoski, 2018) indicate that the innovation co-creation among multiple actors does not happen without support. We call this support *orchestration*.

The concepts of innovation and innovation ecosystem have changed and become more multifaceted since OECD recognised the need of innovation policies and such concepts as regional and national innovation systems (Lundvall, 2007) in the 1970s. Chesborough (2003) emphasized the difference between closed in-house and open innovation. Democratization of innovation and user innovation were discovered by Eric von Hippel (2005), whereas Melkas and Harmaakorpi (2012) launched the notion of practise-based innovation, all relevant concepts for multi-stakeholder innovation. The space or place in which innovation evolves is metaphorically called ecosystem. ENoLL refers to Living Labs as open innovation ecosystems (European Network of Living Labs (ENoLL), n.d.).

In order to scale up, technological and commercial innovations need the support of e.g. social, user and service innovations (Lusch & Nambisan, 2015) - and vice versa. Quadruple or Penta/Quintuple Helix (Etzkowitz, 2003; Franc & Karadžija, 2019) and Open Innovation 2.0 (Curley & Salmelin, 2018) are central concepts in innovation and market co-creation and dissemination for both social and commercial innovations within

\*corresponding author

multi-actor ecosystems. They emphasize the synergy among all actors and actions as well as the enriching effect of nature and the possibility of serendipity.

Co-creation is a central concept in multi-stakeholder innovation. Prahalad and Ramaswamy (2004) defined co-creation as an established way to create value in cooperation between customers and companies. Pera et al. (2016), based on previous research, discovered “how value is co-created by the interaction of a multiplicity of stakeholders, rather than in a dyadic interaction process between two entities”. They emphasise the shift to stakeholder ecosystem co-creation i.e. “the interaction between stakeholders with different and, at times, conflicting identities that are all temporarily brought together within the same ecosystem, triggers the mechanism of value co-creation.”

Often co-creation literature focuses on interaction between an organisation and its clients. Apart from e.g. Rabelo and Bernus (2015), there is not yet much available information on what hinders and facilitates large, multifaceted thematic or city-based ecosystems creating value for all stakeholder involved. This research was initiated in order to start filling this knowledge gap, focusing especially on the orchestration in multi-stakeholder ecosystems.

When there are multiple stakeholder interactions within the ecosystem, it needs to be facilitated. In this research, this facilitating is called orchestration and it is used as an umbrella term for different activities such as management in ecosystems, facilitating, coordinating, brokering, mediating, interpreting, webbing, and building (Äyväri, Hirvikoski, & Uitto, 2019). Orchestration has been widened to include innovation deals (Ferguson, de Zeeuw, & van der Heijden, in press), framework agreements, and policy structures (Juselius, in press).

Orchestration in literature has often been used in the context of companies and business innovation (Äyväri & Spilling, in press). E.g. Verhoeven and Maritz (2012, p. 5) define orchestration as follows: “The set of deliberate, purposeful actions undertaken by a focal organisation for initiating and managing innovation processes in order to exploit marketplace opportunities, enabling the focal organisation and network members to create value (expand the pie) and/or extract value (gain a larger slice of the pie) from the network”. In contrast, this paper aims to lay grounds for the definition of polyphonic and multi-innovation ecosystem orchestration.

Based on earlier research (Äyväri & Spilling, in press) orchestration consists of three processes: “managing knowledge mobility, managing innovation appropriability, and managing network stability”, all the stakeholders strive for value creation, and different kind of actors can be orchestrators.

**This research aims to create and test a method to understand:**

- How is multi-stakeholder innovation co-creation governed within the ecosystem? - What kinds of models, structures, mechanisms and practises facilitate and hinder different multi-stakeholder innovation ecosystems with regards to fulfilling their goals?
- How is stakeholder engagement, asset cultivation, and innovation co-creation orchestrated in dynamic ecosystems?

In order to examine these topics, a set of research methods was created and tested in autumn 2019 – spring 2020 (see Chapter 2.).

## METHODOLOGICAL CONSIDERATIONS

The complexity of the research target demands for a multi-method approach and triangulation. In the first phase of the research, workshops with innovation co-creation experts and practitioners were organised and a list of international innovation ecosystems relevant to the research questions was crafted with the help of Cordis, ENoLL office, and the researchers' extensive tacit knowledge of globally successful diverse innovation ecosystems. This list consisted of more than 100 ecosystems. Combining those with relevant innovation theories, a matrix was created to collect data from public documents of 15 chosen cases out of the 100+. After this, the collected case data was analysed and discussed among three researchers. The analysis showed that other research methods were yet required in order to fill further knowledge gaps in specific areas of the research.

Of the leading mature innovation ecosystems, three Finnish ones were chosen to be examined more closely due to Finland being one of the world-leaders in various innovation scoreboards. During the second part of the research, the missing information was gathered from five of the most experienced innovation ecosystem orchestrating professionals working within the chosen ecosystems, with the help of four thematic interviews. The interviews were recorded, and immediately afterwards two researchers analysed both the findings and the functionality of the method.

Thirdly, continuous comparative content analysis was used to code and categorise the findings and to understand how the method worked. Also, the first empirical results were compared to theoretical knowledge, findings of cases presented in the forthcoming Co-creation Orchestration (CCO) publication (2020, in press), and results of other findings from the CCO project as well as from other projects on relevant themes such as Co-created Health and Wellbeing (CoHeWe), Product Validation in Health (ProVaHealth), CityDrivers, and Kalasatama: Co-designing wellbeing.

### Reliability of the research

This research used triangulation that is typically seen as "a strategy (test) for improving the validity and reliability of research or evaluation of findings" (Golafshani, 2003). The reliability of qualitative research is evaluated based on credibility, conformability, reflectivity, and transferability (Kylmä & Juvakka, 2012). The extensive experience of the chosen interviewed orchestrators verified the credibility of this research. Moreover, the research data consisted of inclusive documentation describing the research phenomenon comprehensively, supplemented by the researchers' tacit knowledge. Additionally, besides systematic documentation, two or three researchers applied continuous comparative method.

The case study research design limits the generalizability of its findings.

## RESULTS AND DISCUSSION

The first main finding was the significant role of the informal side of innovation activities as opposed to formal governance models and actions often highlighted in the literature and in the results of other projects related to the previously mentioned CCO project. With Finland's long history of well-organised open innovation ecosystems and the country scoring high on most of the global innovation scoreboards, it was surprising that the formal side (e.g. decision making, financial and managerial structures, or rules) of innovation ecosystem governance was considered only as a precondition for innovation, whereas the informal aspects (e.g.

deep collaboration based on trust and communication) were emphasised as the actual key success factors. Secondly, publicly available information is not sufficient to study such a complex phenomenon but thematic interviews were needed.

Table 1 introduces the coded and categorised findings regarding facilitating and hindering factors from the public materials and interviews of the three cases. Seven factors (formal 1-7) were found describing mainly the formal side of governance and orchestration, and one characteristic (8) that positions the ecosystem among other ecosystems was discovered. Out of the seven factors, the first four (1-4) are mostly within the authority of the ecosystem while the three others (5-7) affect the ecosystem significantly but the authority lies outside of the ecosystem.

Additionally, seven factors that concern the informal side of the ecosystem were found (informal 1-7). One of those (4: Perception of time) arose only as a negative, hindering factor.

**Table 1.** Results of facilitating and hindering factors of multi-stakeholder innovation co-creation, and the difference between the results from public materials and interviews from 3 cases (public materials (PM), public materials and interviews (PM&I), and solely from interviews without a code)

| FACILITATING FACTORS |  | HINDERING FACTORS  |  |
|----------------------|--|--|--|
| <b>FORMAL</b>        | <b>1. STRONG VISION</b>  |  |  |
|                      | <ul style="list-style-type: none"> <li>• encompassing global, long-term opportunities and challenges</li> <li>• emphasizing active citizenship (PM)</li> </ul>   | <ul style="list-style-type: none"> <li>• contradiction between vision and everyday life</li> <li>• suboptimisation and fragmented project work (PM&amp;I)</li> </ul>   |  |
| <b>FORMAL</b>        | <b>2. GOVERNANCE AND ORCHESTRATION OF MULTI-STAKEHOLDER INNOVATION</b>   |  |  |
|                      | <ul style="list-style-type: none"> <li>• strong visionary upper management</li> <li>• guardian in upper management</li> <li>• non-hierarchical governance model</li> <li>• shared leadership and decision-making</li> <li>• decision-making by hands-on professionals</li> <li>• orchestrator: interpreter and communicator of different aims to create mutual language</li> <li>• flow of information (PM)</li> <li>• orchestrator: brokering of international and national needs, solutions, and contacts</li> <li>• orchestrator: facilitator of collaboration, business development, agile pilots, RDI</li> <li>• orchestrated collaboration with international networks/ecosystems (PM&amp;I)</li> <li>• common operative models and practices in the ecosystem</li> <li>• clear tasks as well as operative and financial roles of the orchestrator</li> <li>• clear and well communicated process for innovation activities</li> <li>• “one-stop-shop” as an external communicator (PM&amp;I)</li> <li>• fast interference in case of problems (PM)</li> <li>• of the PPPP, emphasis on public-private</li> <li>• role of citizen primarily through testing, feedback and initiatives</li> </ul> | <ul style="list-style-type: none"> <li>• rigid structures (PM)</li> <li>• lack of dedicated resources immediately impacts collaboration</li> <li>• lack of time for co-creation, especially a problem in health and wellbeing sector</li> <li>• coordination of strategic goals of various stakeholders is challenging</li> <li>• co-innovation is laborious and calls for active brokering and facilitation</li> <li>• lack of digital know-how of stakeholders involved</li> </ul> |  |

| FACILITATING FACTORS   |   | HINDERING FACTORS  |  |
|--|---|--|--|
| FORMAL   | <b>3. FUNDING OF COLLABORATION AND OTHER SHARED RESOURCES</b>   |  |  |
|  | <ul style="list-style-type: none"> <li>• cooperative</li> <li>• each organisation funds own activities</li> <li>• core funding</li> <li>• co-creation and testing facilities and labs (PM&amp;I)</li> <li>• jointly funded human resources</li> <li>• multifaceted open data for digital solutions (PM&amp;I)</li> </ul>                            | <ul style="list-style-type: none"> <li>• funding based only on projects</li> </ul>                                       |  |
|  | <b>4. SYSTEMATIC AND CONTINUOUS EVALUATION</b>  |  |  |
|  | <ul style="list-style-type: none"> <li>• internal evaluation</li> <li>• external evaluation</li> </ul>  | <ul style="list-style-type: none"> <li>• measuring effectiveness difficult</li> <li>• lack of measuring tools</li> </ul> |  |
|  | <b>5. FORMAL AGREEMENTS AMONG PARTICIPATING ORGANISATIONS</b>   |  |  |
|  | <ul style="list-style-type: none"> <li>• framework agreement</li> <li>• agreement of shared resources</li> </ul>  | <ul style="list-style-type: none"> <li>• lack of or rigidity of agreements</li> </ul>                                    |  |
|  | <b>6. INNOVATIVE URBAN PLANNING</b>   |  |  |
| <ul style="list-style-type: none"> <li>• creating conditions to utilize proximity among stakeholders (PM&amp;I)</li> </ul> |   |  |  |
| CHARACTERISTIC   | <b>7. REGIONAL INNOVATION SMART SPECIALISATION STRATEGY (RIS3)</b>  |  |  |
|  | <ul style="list-style-type: none"> <li>• promoting shared vision and providing hints on what to contribute and how to benefit from collaboration (PM&amp;I)</li> </ul>  |  |  |
|  | <b>8. CONCENTRATION OF SPECIALISTS, ECOSYSTEM CRITICAL MASS, AND LOCATION</b>   |  |  |
|  | <p>Strong concentration of specialists, otherwise within ecosystem of limited critical mass, and remote location enforcing collaboration as a central characteristics of ecosystem (PM&amp;I)</p> <ul style="list-style-type: none"> <li>• within region</li> <li>• with other regions/cities</li> <li>• within international ecosystems</li> </ul> |  |  |
| INFORMAL   | <b>1. HISTORY OF COLLABORATION</b>  |  |  |
|  | <ul style="list-style-type: none"> <li>• shared history of collaboration (PM&amp;I)</li> </ul>  | <ul style="list-style-type: none"> <li>• no established collaboration (PM)</li> </ul>                                    |  |
|  | <b>2. OPENNESS AND TRANSPARENCY OF CULTURE AND ACTION MODELS</b>  |  |  |
|  | <ul style="list-style-type: none"> <li>• continuous informal and formal communication and interaction among ecosystem stakeholders (PM&amp;I)</li> <li>• willingness to share</li> </ul>  |  |  |

| FACILITATING FACTORS  |  | HINDERING FACTORS   |  |
|---|--|---|--|
| INFORMAL  | <b>3. PERSONAL ATTITUDES AMONG INNOVATION ECOSYSTEM ORCHESTRATOR AND OTHER PROFESSIONALS</b>   |   |  |
|   | <ul style="list-style-type: none"> <li>• willingness to understand and learn from diverse people with different points of view</li> <li>• willingness to collaborate</li> <li>• encouraging, listening, asking (PM)</li> <li>• perseverance</li> </ul> | <ul style="list-style-type: none"> <li>• resistance to change</li> <li>• jealousy</li> <li>• participation for wrong reasons</li> <li>• lack of conception of benefits in the long run</li> </ul> |  |
|   | <b>4. PERCEPTION OF TIME</b>   |   |  |
|   |  | <ul style="list-style-type: none"> <li>• different perception of time among public, private, and academia</li> </ul>  |  |
|   | <b>5. COMMITMENT TO COMMON GOALS</b>   |   |  |
|   | <ul style="list-style-type: none"> <li>• engaged and active stakeholders (PM&amp;I)</li> <li>• organisations' monetary commitment</li> </ul>   | <ul style="list-style-type: none"> <li>• uncommitted stakeholders</li> </ul>  |  |
|   | <b>6. CREATING CONDITIONS FOR GROWING INTERNAL MOTIVATION AND GENUINE VALUE AMONG PROFESSIONALS</b>  |   |  |
| <ul style="list-style-type: none"> <li>• encouragement</li> <li>• immaterial rewarding</li> <li>• meaningfulness through participatory activities</li> <li>• respect of expertise and providing visibility</li> <li>• opportunities to innovate (PM&amp;I)</li> </ul> | <ul style="list-style-type: none"> <li>• non-realistic expectations ("Ecosystem is not a bottomless barrel of wishes")</li> </ul>  |   |  |
| <b>7. TRUST WITHIN ECOSYSTEM</b>  |  |   |  |
| <ul style="list-style-type: none"> <li>• among stakeholders</li> <li>• in orchestrator</li> </ul>   | <ul style="list-style-type: none"> <li>• lack of trust within ecosystem</li> </ul>   |   |  |

The three cases being from Finland, it was surprising that in the interviews citizen participation was not highlighted, since in the Nordic smart city governance model including legislation (Bremer et al., 2020) the citizen is implicitly always present ("people first"). This might explain why the interviewees concentrated more on public-private partnership. In the public materials, the benefits of the ecosystem for the citizens were emphasized, whereas the interviewees highlighted the economic vitality of the ecosystem and its testing environments and services for companies. In the interviews, the role of citizens was primarily articulated through testing, feedback, and initiatives, and less through participatory engagement as active co-creators. Additionally, shared or mutual learning or conflicts were not emphasized in the public materials or in the interviews.

The findings suggest that in cross-sectoral, cross-organisation and cross-border innovation co-creation, successful business models and good leadership alone do not generate results, despite the focus on these in the public case documents, other CCO-related projects, and relevant business literature. In the thematic interviews, there was a clear message: "It is people who do cross-border and cross-organisational work and get

results, not organisations". "Although formal structures and models vary, it is the informal human interaction that makes the ecosystem sustainable." With these comments, the interviewees referred to the collaboration between the professionals representing various organisation and sectors.

An experienced orchestrator of a leading ecosystem named communication as the biggest challenge, highlighting the importance of informal activities: "[The thing that most hinders multi-stakeholder innovation is] working on one's own; [when] quite little of what is done is shared with the world. Discussions and encounters - there isn't such a thing as too much of those." "Very important [in multi-stakeholder innovation] is continuous interaction. [Even though it is important, often] one does not regard it as part of a management model. It is not written anywhere but such practice has just arisen. There is a need for plenty [informal] 'corridor discussions' and messengers." Additionally, according to another interviewee, "Mistrust or jealousy completely obstructs [the successful operation of the innovation ecosystem]." "Instead of hierarchy, [the successful operation of the innovation ecosystem is] based on trust and collaboration. Without these, it is impossible for the ecosystem to operate." From comments such as these, it is concluded that even when functioning formal structures and processes are in place, failures on the informal side can greatly hinder the success of an innovation ecosystem or annihilate its operation.

## CONCLUSIONS

As wicked problems and shocks affect any type of system, they call for holistic and long-term governing mechanisms supporting resilience (Lostrangio, in press) with an emphasis on both the informal and formal factors of ecosystems. In a country that regularly tops various innovation scoreboards, established and successful ecosystems did not consider well-functioning formal structures alone sufficient but instead highlighted the informal side arguing that failing on the informal aspects can obstruct the whole ecosystem despite functional formal structures and processes. This result would not have been uncovered purely based on publicly available materials and formal documents but diverse and complementary research methods, in this case interviews, were needed.

Based on the five experienced orchestrators' interviews on three multifaceted, mature, and successful ecosystems, the informal side of organisation within the ecosystem affects its ability to reach its goals more than the formal aspects - even when the primary goal of the ecosystem is to support the vitality of regional economy and businesses. Orchestrators emphasised the long-term benefit of the system over the subsystems: "The more you are willing to give, the more you also get". In order to draw wider conclusions, more empirical research is needed. Moreover, in literature reviews, it would be suggested to consider the field of science of the research, the maturity level of the ecosystem under construction, as well as the professional orientation of the orchestrator as important background factors of the research results. These background factors can potentially have an impact on the findings regarding the emphasis of the different aspects of governance, orchestration, and actions, as well as e.g. setting of goals of the ecosystem.

## Acknowledgments

First published by European Network of Living Labs (ENoLL) during Digital Living Lab Days 2020. The research described in this paper is a part of a wider Co-creation Orchestration (CCO) project, funded by the Finnish Ministry of Education and Culture and Laurea University of Applied Sciences. The authors would like to express their specific gratitude to Ines Vaittinen from ENoLL, the CCO team, the five ecosystem orchestrators, and other experts who provided their valuable time and expertise to discuss the topic of this research with us.



---

**Tuija Hirvikoski**, emerita vice-president of Laurea and emerita president of European Network of Living Labs (ENoLL) holding PhD in Industrial Management, has held various managerial positions at different Finnish higher education institutions and governmental institutions focusing on sustainable regional and societal development.

**Kaisla Saastamoinen**, is Project Specialist in the Co-creation Orchestration (CCO) project at Laurea University of Applied Sciences. In this position, she researches multi-stakeholder innovation ecosystems and their orchestration. She holds a Master's degree in Hospitality Management (Customer-centric Service Development).

**Keywords:**

- Multi-stakeholder innovation co-creation
- Orchestration
- Innovation ecosystems
- Living labs
- Hindering and facilitating

---

## References

**Bremer, O., Kinnunen, N., Koponen, J., Laurila, L., Leppänen, J., Malho, M., Mokka, R., & Suikkanen, H.** (2020). *People first: A vision for the global urban age. Lessons from Nordic Smart Cities.* Helsinki: Demos Helsinki.

**Chesbrough, H.** (2003). *Open Innovation: The new imperative for creating and profiting from technology.* Boston, MA: Harvard Business School Press.

**Curley, M. & Salmelin, B.** (2018). *Open Innovation 2.0: The new mode of digital innovation for prosperity and sustainability.* Switzerland: Springer.

**Edwards-Schachter, M.E.** (2016). Challenges to firms' collaborative innovation facing the innovation babel tower. In Al-Hakim et al. (Eds.), *Handbook of research on driving competitive advantage through sustainable, lean, and disruptive innovation.*

**Etzkowitz, H.** (2002). *The Triple Helix of university - industry - government implications for policy and evaluation.* Science Policy Institute Working paper 2002-11

**European Network of Living Labs (ENoLL).** (n.d.). What are Living Labs. Retrieved from <https://enoll.org/about-us/>

**Ferguson, J., de Zeeuw, A., & van der Heijden, E.** (in press). Co-creation in urban living labs: A multilevel network perspective on labor market innovation. In Hirvikoski & Merimaa (Eds.), *Multi-stakeholder Innovation Co-creation and Orchestration.* Laurea University of Applied Sciences.

**Franc, S. & Karadžija, D.** (2019). Quintuple helix approach: The case of the European Union. *Notitia - journal for economic, business and social issues.* 2019 number 5.

**Golafshani, N.** (2003). Understanding reliability and validity in qualitative research. *The qualitative report,* 8(4), 597-607.

**Hirvikoski, T.** (2018). Socio-ecological transition pioneered by Living Labs. Foreword in Dezuanni, M., Foth, M., Mallan, K., & Hughes, H. (Eds.), *Digital participation through social Living Labs – Valuing local knowledge, enhancing engagement*. Cambridge, UK: Chandos Publishing.

**Juselius, J.** (in press). The view from the Region: opportunities and challenges for innovation and co-orchestration. In Hirvikoski & Merimaa (Eds.), *Multi-stakeholder Innovation Co-creation and Orchestration*. Laurea University of Applied Sciences.

**Kylmä, J., & Juvakka, T.** (2007). *Laadullinen terveystutkimus*. Edita.

**Lostrangio, M.** (in press). How can local authorities plan for urban resilience? Co-creation and multi-stakeholder engagement in the Municipality of Potenza (Italy). In Hirvikoski & Merimaa (Eds.), *Multi-stakeholder Innovation Co-creation and Orchestration*. Laurea University of Applied Sciences.

**Lundval, P.-Å.** (2007). Innovation systems—Analytical concept and development tool. *Industry and Innovation* 14(1), 95-119.

**Lusch, R. F., & Nambisan, S.** (2015). Service innovation: A service-dominant logic perspective. *Management Innovation Systems Quarterly*, 39(1), 155-176.

**Mazzucato, M.** (2018). *Mission-Oriented Research & Innovation in the European Union. A problem-solving approach to fuel innovation-led growth*. European Commission. Publications Office of the European Union, 2018.

**Melkas, H. & Harmaakorpi, V.** (Eds.). (2012). *Practice-based Innovation: Insights, applications and policy implications*. Springer.

**Pera, R., Occhiocupo, N., & Clarke, J.** (2016). Motives and resources for value co-creation in a multi-stakeholder ecosystem: A managerial perspective. *Journal of Business Research*, 69(10), 4033-4041.

**Prahalad, C. K., & Ramaswamy, V.** (2004). Co-creating unique value with customers. *Strategy & leadership*.

**Rabelo & Bernus** (2015). A Holistic Model of Building Innovation Ecosystems. *IFAC-PapersOnLine*, 48(3), 2250-2257.

**Rittel, H. W., & Webber, M. M.** (1973). Dilemmas in a general theory of planning. *Policy sciences*, 4(2), 155-169.

**Russo, M., & Hughes, T. P.** (2000). Complementary innovations and generative relationships: an ethnographic study. *Economics of Innovation and New Technology* 9(6), 517-558

**Verhoeven, K. B. T., & Maritz, A.** (2012). Collaboration for Innovation: Network processes and capabilities. In *ISPIM Conference Proceedings* (pp. 1-18). Manchester: The International Society for Professional Innovation Management (ISPIM).

**Von Hippel, E. A.** (2005). *Democratizing Innovation*. Cambridge, MA: MIT Press.

**Äyväri, A., & Spinning, K.** (in press). Orchestration practices in multi-stakeholder co-creation. Case Agile Piloting at Smart Kalasatama. In Hirvikoski & Merimaa (Eds.), *Multi-stakeholder Innovation Co-creation and Orchestration*. Laurea University of Applied Sciences.

**Äyväri, A., Hirvikoski, T., & Uitto, H.** (2019). Identifying Living Lab orchestrators' individual-level skills. *Proceedings of the OpenLivingLab Days Conference. Co-creating Innovation: Scaling-up from local to global*. Brussels: European Network of Living Labs.



**WE ARE LIVING** in a world that is changing at a rapid pace. Globalization and technological development are bringing about many benefits. However, the challenges we meet are often complex, inter-connected and systemic, so-called *wicked problems*. The challenges are no longer local or one-dimensional.

Addressing wicked problems requires new rules and new ways of thinking that are determined by collaboration, inclusiveness and openness. These global challenges call for updated models that both help to enhance involvement of multiple stakeholders in *co-innovation* and *value co-creation*, and help stakeholders to benefit from them.

The set of articles within this book demonstrate how such concepts as *multi-stakeholder partnership*, *co-production of research* and *participatory Research, Development and Innovation* take place in practice. The articles epitomise how new collaborations, dialogues and partnerships are being formed among academic, public and private partners, and civic society. As the described collaboration is characterised by impactful interdisciplinary and creative methodological experimentation, this publication seeks to engage a wide audience of researchers, educators, policy-makers, practitioners and others with an interest in combining collaborative academic, business and public expertise.

These articles introduce research results, methodological considerations and practitioners' experiences on multi-stakeholder collaboration allowing for and benefiting from open research, innovation and educational processes. They make apparent the wide range of practices, tools and benefits of co-creation in the context of *Open innovation*, *Open science* and *higher education*. The articles shed light on the prerequisites of purposeful multi-stakeholder partnership and collaboration in different thematic and regional contexts.