Chris McPhee, Editor-in-Chief Seppo Leminen, Dimitri Schuurman, Mika Westerlund, and Eelko Huizingh, Guest Editors

From the Editor-in-Chief

Welcome to the December 2018 issue of the *Technology Innovation Management Review*. This month's editorial theme is **Living Labs**, and it is my pleasure to introduce our guest editors, who have been regular contributors to the journal on this topic: **Seppo Leminen** (Pellervo Economic Research and Aalto University, Finland, as well as Carleton University, Canada), **Dimitri Schuurman** (imec, Belgium), **Mika Westerlund** (Carleton University, Canada), and **Eelko Huizingh** (University of Groningen, The Netherlands).

Most of the articles in this issue were selected and developed from papers presented at the ISPIM Innovation Conference in Stockholm, Sweden, from June 17–20, 2018. ISPIM (ispim-innovation.com) – the International Society for Professional Innovation Management – is a network of researchers, industrialists, consultants, and public bodies who share an interest in innovation management.

In our January issue, we start the new year by focusing on the theme of **Technology Commercialization and Entrepreneurship** with guest editors **Ferran Giones** from the University of Southern Denmark and **Dev K. Dutta** from the University of New Hampshire in the United States.

For future issues, we welcome your submissions of articles on technology entrepreneurship, innovation management, and other topics relevant to launching and growing technology companies and solving practical problems in emerging domains. Please contact us (timreview.ca/contact) with potential article topics and submissions.

Chris McPhee Editor-in-Chief

From the Guest Editors

Beginning in 2012 with the International Society for Professional Innovation Management (ISPIM) Conference in Barcelona, a Special Interest Group (SIG; ispiminnovation.com/groups-projects) on living labs has held a yearly invited speaker session, a dedicated paper track, and other activities such as thematic workshops. In 2018, the ISPIM conference took place in Stockholm, one of the central cities of the Nordic countries, which are regarded as the cradle of the living labs movement. Therefore, in this setting, it was natural for ISPIM's Living Lab SIG to team up with the *Technology Innovation Management Review* for a special issue on the theme of Living Labs with selected papers from the ISPIM 2018 conference.

Living labs are physical regions or virtual realities where stakeholders from public-private-people partnerships (4Ps) of firms, public agencies, universities, institutes, and users meet. All are collaborating to create, prototype, validate, and test new technologies, services, products, and systems in real-life contexts (Westerlund & Leminen, 2011). Since the birth of the European Network of Living Labs (ENoLL; enoll.org) in 2006 and the first academic publications on the subject, a lot has changed. The ENoLL has accredited over 400 living labs and now maintains an active community of about 150 members that span different areas and themes, such as smart cities, eHealth, public sector innovation, and rural development. In terms of the levels of analysis (cf. Schuurman, 2015), some living lab organizations focus on quadruplehelix consortia that tackle so-called "wicked" societal problems with involvement of all relevant stakeholders. Other living labs focus more on the meso-level, developing a specific methodology that is offered as a service to specific utilizers (Leminen, Westerlund, & Nyström, 2012). Moreover, in parallel, a lot of other "labs" have emerged, such as Fab Labs, policy labs, and other kinds of innovation labs (cf. Schuurman & Tõnurist, 2017). Also, there are signs of transformations in living labs and increasing diversity of innovation labs and innovation spaces with a trend towards what can be considered third-generation living labs (Leminen, Rajahonka, & Westerlund, 2017).

Chris McPhee, Seppo Leminen, Dimitri Schuurman, Mika Westerlund, and Eelko Huizingh

In this special issue, the authors reflect on various aspects of living labs, positioning them next to other innovation approaches, looking into specific types of living labs, and analyzing specific methods and techniques used in living lab projects.

In the first article, **Dimitri Schuurman** from imec.livinglabs in Belgium and **Sonja Protic** from the University of Natural Resources and Life Sciences, Vienna, compare the living lab methodology with the lean startup methodology. They report on the results of an empirical investigation of 86 innovation projects. Their findings suggest that the living lab and lean startup approaches are complementary, and they argue that combining the different strengths of the two approaches can bring clear benefits.

Next, **Fernando Vilariño**, President of the European Network of Living Labs and Co-Founder of the Library Living Lab in Barcelona along with Co-Founder **Dimosthenis Karatzas**, and key contributor and user representative **Alberto Valcarce** describe how the Library Living Lab fosters innovation in cultural spaces via reallife co-creation. The specific challenges of developing an open, flexible, and inter-connected space are identified, and the interaction dynamics based on a challenge–action–return methodology definition are described through practical examples.

Then, **Marius Imset**, **Per Haavardtun**, and **Marius Stian Tannum** from the University of South-Eastern Norway focus on the multi-stakeholder element of living labs and explore the use of stakeholder analysis when setting up a living lab organization for an autonomous ferry connection. Using an action research approach with multiple iterations, they share their experiences with the process and results, and they reflect openly on the strengths and weaknesses of both the stakeholder methodology generally as well as their own implementation specifically.

In the fourth article, Lynn Coorevits, Annabel Georges, and Dimitri Schuurman from imec.livinglabs in Belgium examine the real-life aspect of living lab projects and introduce a framework containing four different types of living lab field tests according to the degree of realism and to the development stage. The goal of this framework is to guide practitioners to set up field tests at every stage in the living lab process.

Finally, **Mika Westerlund**, **Seppo Leminen**, and **Christ Habib**, describe work undertaken at Carleton University in Ottawa, Canada, to identify the key constructs of living labs using a qualitative research approach. By reviewing and comparing the literature on living labs with literature on user innovation and co-creation, they identify the central constructs by which living labs can be examined in terms of their defining characteristics. They then use these constructs to analyze 40 membership applications received by the European Network of Living Labs in order to reveal how the constructs show up in the operation of living labs, and they provide a research-based definition of living lab platforms.

This diverse set of articles illustrate the increasing popularity of living labs in innovation practice as well as in innovation research. However, more research is still needed in terms of living lab methods, project approaches, and organizational set-up. Therefore, we encourage the exchange of experience and knowledge from different traditions and research streams in order to enrich the valuable concept of living labs as a multiactor, co-creative, and real-life approach to tackle innovation problems.

Seppo Leminen, Dimitri Schuurman, Mika Westerlund, and Eelko Huizingh Guest Editors

Chris McPhee, Seppo Leminen, Dimitri Schuurman, Mika Westerlund, and Eelko Huizingh

About the Editors

Chris McPhee is Editor-in-Chief of the *Technology Innovation Management Review*. Chris holds an MASc degree in Technology Innovation Management from Carleton University in Ottawa, Canada, and BScH and MSc degrees in Biology from Queen's University in Kingston, Canada. He has nearly 20 years of management, design, and content-development experience in Canada and Scotland, primarily in the science, health, and education sectors. As an advisor and editor, he helps entrepreneurs, executives, and researchers develop and express their ideas.

Seppo Leminen is a Research Director at Pellervo Economic Research in Finland, and he serves as an Adjunct Professor of Business Development at Aalto University in Helsinki, Finland, and as an Adjunct Research Professor at Carleton University in Ottawa, Canada. He holds a doctoral degree in Marketing from the Hanken School of Economics in Finland and a doctoral degree in Industrial Engineering and Management from the School of Science at Aalto University. His research and consulting interests include living labs, open innovation, innovation ecosystems, robotics, the Internet of Things (IoT), as well as management models in high-tech and service-intensive industries. He is serving as an associate editor in the BRQ Business Research Quarterly, on the editorial board of the Journal of Small Business Management, as a member of the Review Board for the Technology Innovation Management Review, and on the Scientific Panel of the International Society for Professional Innovation Management (ISPIM). Prior to his appointment at Aalto University, he worked in the ICT and pulp and paper industries.

Dimitri Schuurman is the Team Lead of the Business Model and User Research Team at imec.livinglabs. He holds a PhD and a Master's degree in Communication Sciences from Ghent University in Belgium. Together with his imec colleagues, Dimitri developed a specific living lab offering targeted at entrepreneurs in which he has managed over 100 innovation projects. He is also active in the International Society for Professional Innovation Management (ISPIM) and in the European Network of Living Labs (ENoLL) as a living labs specialist. His main interests and research topics are situated in the domains of open innovation, user innovation, and innovation management. **Mika Westerlund**, DSc (Econ), is an Associate Professor at Carleton University in Ottawa, Canada. He previously held positions as a Postdoctoral Scholar in the Haas School of Business at the University of California Berkeley and in the School of Economics at Aalto University in Helsinki, Finland. Mika earned his doctoral degree in Marketing from the Helsinki School of Economics in Finland. His research interests include open and user innovation, the Internet of Things, business strategy, and management models in high-tech and service-intensive industries.

Eelko Huizingh is an Associate Professor of Innovation Management and Director of the innovation Centre of Expertise Vinci at the University of Groningen, the Netherlands. He is founder of Huizingh Academic Development, offering workshops academic research and academic writing to increase the publishing performance of academics. He is also the Director of Scientific Affairs for the International Society for Professional Innovation Management (ISPIM). His academic research focuses on the intersection of innovation and entrepreneurship, marketing, and information technology. He has authored over 350 articles, has edited more than 30 special issues of journals, and has published several textbooks.

Chris McPhee, Seppo Leminen, Dimitri Schuurman, Mika Westerlund, and Eelko Huizingh

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