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Editorial: Innovation in Living Labs

Chris McPhee, Editor-in-Chief

Seppo Leminen, Mika Westerlund, Dimitri Schuurman,
and Pieter Ballon, Guest Editors

From the Editor-in-Chief

Welcome to the February issue of the *Technology Innovation Management Review* – the second of two issues on the theme of **Innovation in Living Labs**. It is my pleasure to introduce our guest editors: **Seppo Leminen** (Laurea University of Applied Sciences and Aalto University, Finland, as well as Carleton University, Canada), **Mika Westerlund** (Carleton University), **Dimitri Schuurman** (imec and Ghent University, Belgium), and **Pieter Ballon** (VUB, Belgium).

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

We are delighted to introduce the second of two special issues on the theme of **Innovation in Living Labs**. The February issue is the seventh in the series of special issues of the *Technology Innovation Management Review* focusing on living labs (McPhee et al., 2012; McPhee et al., 2013a,b; McPhee et al., 2015; McPhee et al., 2016; McPhee et al., 2017).

As with the January issue, most of the articles in this issue were carefully selected and revised from papers at the OpenLivingLab Days 2016, held from August 23 to 26 in Montreal, Canada. Accordingly, we would like to invite you to the OpenLivingLab Days 2017 to be held in Krakow, Poland on August 29 through September 1, 2017. The conference will feature designated living lab tracks and workshops by the European Network of Living Labs (ENoLL; openlivinglabs.eu), and it gathers numerous living lab practitioners and scholars worldwide.

As the field advances, there is greater and greater diversity in topics covered and approaches taken in living labs practice as well as research (cf. Bergvall-Kåreborn et al., 2015; Brankaert et al., 2015; Dell’Era & Landoni, 2014; Dutilleul et al., 2010; Edvardsson et al., 2012; Femeniás & Hagbert, 2013; Guimont & Lapointe, 2016; Hakkarainen & Hyysalo, 2016; Leminen, 2015; Leminen et al., 2012, 2015, 2016; Nyström et al., 2014; Rits et al., 2015; Schuurman et al., 2016; Ståhlbröst & Lassinantti, 2015; Veeckman et al., 2013; Westerlund & Leminen, 2011). The early living lab literature not only focuses on explaining innovation and development activities with users in different contexts but also offers a broad variety of definitions. The recent literature reveals methods and conceptualizations for the benefit of managers and researchers. Moreover, Leminen (2015) and Leminen and Westerlund (2016) categorize prior studies to diverse research avenues based on an extensive literature review. Following this categorization, the present special issue focuses on revealing methods, methodologies, and approaches in living labs.

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The first article, by **Sonja Pedell, Alen Keirnan, Gareth Priday, Tim Miller, Antonette Mendoza, Antonio Lopez-Lorca, and Leon Sterling** from Melbourne, Australia, focuses on methods to support the elicitation of emotions. The study is based on qualitative research and design methods including interviews, animations, and storyboards. So doing, it contributes to the living lab literature by demonstrating how emotion-led methods and goal models can be used at various stages of the living lab process.

The second article, by **Ruben D'Hauwers, Aron-Levi Herregodts, Annabel Georges, Lynn Coorevits, Dimitri Schuurman, Olivier Rits, and Pieter Ballon** from imec, VUB, and Ghent University, Belgium, examines business-to-business living lab projects. The authors use an action research approach to study eight living lab cases in Belgium. Their study identifies three main barriers that prevent real-life experimentation in business-to-business living lab projects. The authors emphasize the need for providing guidelines for real-life testing and panel management in a business-to-business context.

The third article, by **Anna Ståhlbröst and Marita Holst** from Luleå University of Technology, Sweden, reflects on a development method to stimulate learning and adoption of digital innovations. The article is based on a research project financed by the European Commission and proposes that end users are able to change their energy consumption behaviour based on the results of living lab activities. The article concludes by proposing that complexity may lead to processes that are difficult to predict in advance.

In the fourth article, **Sara Logghe and Dimitri Schuurman** from imec and Ghent University, Belgium, illuminate an action research approach to capture delights and frustrations of panel members in living labs. The article is designed on a qualitative research approach including three living lab projects in Belgium. It contributes to the literature by recommending that living lab operations benefit from a combined action research and living lab approach, including active involvement of panel members themselves.

Finally, in the fifth article, **Louise Savelkoul and Murk Peutz** from Equator Research in the Netherlands examine the structured needsfinding phase of a living lab infrastructure project. The data were collected through a questionnaire to measure bicycle commuting intention. The results of the research lead to practical guidelines when developing fast cycling routes.

It is evident that the articles in this special issue illustrate that living labs are a blossoming research domain. We hope that you enjoy the issue and consider utilizing the potential and opportunities of living labs in your organization. Finally, we encourage living lab researchers as well as other innovation scholars to take further research actions into the different aspects of living labs.

Seppo Leminen, Mika Westerlund, Dimitri Schuurman, and Pieter Ballon
Guest Editors

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About the Editors

Chris McPhee is Editor-in-Chief of the *Technology Innovation Management Review*. He 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. Chris 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 Principal Lecturer at the Laurea University of Applied Sciences and serves as an Adjunct Professor of Business Development at Aalto University in Finland and an Adjunct Research Professor at Carleton University in Canada. He holds a doctoral degree in Marketing from the Hanken School of Economics and a doctoral degree in Industrial Engineering and Management in 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. Results from his research have been reported in *Industrial Marketing Management*, the *Journal of Engineering and Technology Management*, the *Journal of Business & Industrial Marketing*, *Management Decision*, the *International Journal of Technology Management*, the *International Journal of Technology Marketing*, the *International Journal of Product Development*, and the *Technology Innovation Management Review*, among many others.

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 current research interests include open and user innovation, the Internet of Things, business strategy, and management models in high-tech and service-intensive industries.

Dimitri Schuurman is the Team Lead in User Research at imec.livinglabs and a Senior Researcher at imec – MICT – Ghent University in Belgium. He holds a PhD and a Master's degree in Communication Sciences from Ghent University. Together with his imec colleagues, Dimitri developed a specific living lab offering targeted at entrepreneurs in which he has managed over 100 innovation projects. Dimitri is responsible for the methodology and academic valorization of these living lab projects and coordinates a dynamic team of living lab researchers. His main interests and research topics are situated in the domains of open innovation, user innovation, and innovation management. His PhD thesis was entitled *Bridging the Gap between Open and User Innovation? Exploring the Value of Living Labs as a Means to Structure User Contribution and Manage Distributed Innovation*.

Pieter Ballon is the Academic Lead of imec.livinglabs, the International Secretary of the European Network of Living Labs, and Director of the research group imec-SMIT at Vrije Universiteit Brussel in Belgium. He specializes in business modelling, open innovation, and the mobile telecommunications industry. Formerly, he was Senior Consultant and Team Leader at TNO. In 2006–2007, he was the coordinator of the cross issue on business models of the Wireless World Initiative (WWI), which united five integrated projects in the European Union's 6th Framework Programme. Pieter holds a PhD in Communication Sciences from Vrije Universiteit Brussel and a MA in Modern History from Katholieke Universiteit Leuven.

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