Chapter 57
The Role of Living Labs in the Process of Creating Innovation

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ABSTRACT

The paper is based on the research carried out into Living Labs in Canada. The aim of the paper is presenting the essence of Living Labs as a concept facilitating innovation generation in businesses thanks to the cooperation of various actors, e.g. producers with users, inspiring the process of the development of new goods and services. The research questions raised pertain to the clarification how Living Labs create innovation in businesses. The Living Labs functioning in the Ontario region were the subject matter of the research. The described case study is theorygenic in character because of the early development stage of the knowledge. During the research process the multi-directional nature and the impact dynamics of the idea of Living Labs among peer partners of innovative processes have been noted, emphasizing the prosumer idea as well as the possibility of businesses cooperating in Living Labs.

INTRODUCTION

Failure is an option here. If things are not failing, you are not innovating enough. (Elon Musk)

Living Labs are a new trend in innovation, which is understood in this paper as creating new. J. A. Schumpeter (1960) introduced it into economic sciences. Innovation is applying new knowledge in the production process (Begg, 1997). Innovation is thus a process which modifies the present possibilities, based on the needs of end users in the nearest future as well as implementing them on the market.

A Living Lab is a modern concept but its roots can be traced back to Knight (1749), who was the first to use the term "living laboratory" (den Ouden, E. et al., 2016). Westerlund and Leminen define living labs as: "physical regions, virtual or relational spaces, where the stakeholders cooperate in a public-private-people partnership of business, public institutions, universities, users and others, every-

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one involved in the developed product or service, participating in the process of prototyping, validation as well as testing of new technologies, services, products and systems in real life, and not in laboratory conditions" (Leminen, 2013). As such, living labs are used to generate innovations.

There are seven key characteristics of living labs that have been included in the definition presented above (Leminen, 2015):

1. Innovation activities take place in real-life environments (cf. Ballon et al., 2005; Intille et al., 2006).
2. Public-private-people partnerships (4Ps) are formed by participants, who include companies, researchers, authorities, and users (cf. Westerlund & Leminen, 2011).
3. The importance of users, including citizens and customers, is emphasized (Følstad 2008).
4. They are different from testbeds, field trials, and other forms of innovation (cf. Almirall et al., 2012; Ballon et al., 2005; Bergvall-Kåreborn et al., 2009). They feature innovations that are more mature than in-house R&D, where prototyping and field trials are more appropriate, but the innovations are less mature than would be found in pilot projects (Ballon et al., 2005).
5. Multiple stakeholders are employed in living labs (cf. Ballon et al., 2005; Leminen & Westerlund, 2012; Westerlund & Leminen, 2011).
6. Multiple roles are pursued by stakeholders in living labs (Nyström et al., 2014).
7. Collaboration between stakeholders is an essential feature of living labs, which are grounded in the principles of open innovation (cf. Leminen & Westerlund, 2012; Niitamo et al., 2006).

Living labs can be an effective method of implementing innovations and creating open systems, which generate innovations thanks to the cooperation of various entities (e.g. manufacturers) with end-users, who inspire this process and can constitute its driving force. A living lab creates an environment, where innovations come into being with the help of testing processes and experimentation as the result of collaboration of the participants of the production process of new goods and services . In this approach living labs can be perceived as organizations of the future.

Also, the way universities function is changing, as different universities explore how to put their "third role" into practice. In pioneering regions across Europe, universities are becoming active players in their communities, contributing to the quality of life and regional well-being, adding value to regional development processes and anchoring the importance of knowledge in the regional innovation ecosystem. Ideally, this is a co-creation process producing regional services in collaboration with industry, public authorities and citizens (den Ouden, E. et al., 2016). The European Union's Smart Specialization Platform breaks down the active regional contributions by universities into four areas (den Ouden, E. et al., 2016 after Markkula M., Kune H., 2015):

1. Business innovation: closely linked, although not exclusively, to the research function of the university.
2. Human capital development: linked to the teaching function.
3. Community development: linked to the public service role of universities.
4. Institutional capacity of the region: the university contributes through engagement of its management and members in local civil society.

Basis on the information presented above living labs can be perceived as: