

# Chapter 25

## Incremental and Radical Service Innovation in Living Labs

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### ABSTRACT

*Living labs provide a new, under researched form of open innovation. Although open innovation is increasingly popular in service development, extant literature lacks knowledge of different open service innovation strategies, which companies can employ. This chapter focuses on strategies that firms can take in co-creating service innovations through living labs. The authors found nine open service innovation strategies based on an analysis of 26 living labs in four countries. Understanding of strategies and their links with incremental or radical innovation outcomes aid managers to set up an efficient innovation management. Knowledge of various strategies helps companies to succeed in service development and innovation novelty assessment based on the characteristics of the living lab.*

### INTRODUCTION

Open innovation is ever more popular and even companies in the traditional industries are seeking benefits of the external sources of knowledge and the user-driven approach in product and service development (Calanstone & Stanko, 2007). The endeavour is motivated by the fact that firms which increasingly rely on external Research & Development (R&D) activities have better innovative performance (Berchicci, 2013). However, most studies consider a firm's innovation development options as either closed or open without

any alternatives between these two (cf. Almirall & Casadesus-Masanell, 2010). Therefore, many companies with little experience of the new paradigm encounter severe problems in understanding what is required to make the open innovation model work (Chiaroni et al., 2011).

A firm's transformation into an open innovator may take a long time, although profiting from innovation through the product market calls for faster product development cycles and effective organizing for new technological opportunities (Gans & Stern, 2003; Chiaroni et al., 2011). The challenge is even more prominent regarding

services, as there is a lack of theoretical and empirical contributions for innovation in the service sectors. Only a few studies address co-production of services – rather, the focus in service literature is on co-creation of value (Chen et al., 2011). There is a need for more research on open service innovation (Chesbrough, 2011), especially in the living labs context which provides a well suited environment and under researched area for studying services (Pascu & van Lieshout, 2009; Leminen et al., 2012).

This chapter explores different service innovation strategies and their links with the type of innovation outcomes in living labs. We follow the view of Wooder and Baker (2012) who describe service innovation as the combination of a value proposition, a delivery mechanism, and a customer's experience. We distinguish between incremental and radical service innovation outcomes in concordance with the view of Hipp and Grupp (2005). Furthermore, we apply the definition by Leminen and Westerlund (2012) according to whom living labs are “physical regions or virtual realities, or interaction spaces, in which stakeholders form public-private-people partnerships (4Ps) of companies, public agencies, universities, users, and other stakeholders, all collaborating for creation, prototyping, validating, and testing of new technologies, services, products, and systems in real-life contexts.”

In particular, our research problems are:

- What are the different strategies for open service innovation through living labs?
- What are the characteristics and outcomes of these open service innovation strategies?

The chapter is divided into three main sections. After a brief introduction to this study, we review the theoretical foundations for living labs and create a framework for analyzing incremental and radical service innovation strategies in living labs. Then, we describe our research methodology as well as data collection and analysis. Further-

more, we offer empirical findings of different open innovation strategies for services through living labs. Finally, we discuss our findings and conclude on incremental and radical service innovation in living labs.

## **SERVICE INNOVATION IN LIVING LABS**

Today's competition is increasingly based on services instead of products and technologies. Hipp and Grupp (2005) argue that innovations in the service sector use technological developments merely as a means of creating new and improving existing products and processes rather than just offering pure technological progress. Chen et al. (2011) define such service innovation as “a new or significantly improved service concept or process,” which is based on some technology or systematic method. Furthermore, according to Chen et al. (ibid.) customers are main sources of creative ideas, as well as product and service innovations, and co-production strongly influences service innovation.

We draw on the definition provided by Wooder and Baker (2012) and view service innovation as an innovation applied to one or more of the following areas: new concepts and/or value propositions; new delivery mechanisms and/or business models; and new experiences. This definition is also in line with Van Ark et al. (2003), who viewed service innovation as “a new or considerably changed service concept, client interaction channel, service delivery system or technological concept that individually, but most likely in combination, leads to one or more (re)new(ed) service functions that are new to the firm and do change the service/good offered on the market and do require structurally new technological, human or organizational capabilities of the service organization.”

The complexity of services suggests firms can adopt diverse service innovation strategies. Paswan et al. (2009) linked service innovations

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