

# An assessment of the Living Laboratory approach for collaborative innovation and design of the Regional Spatial Profiler

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## INTRODUCTION

Central to the Living Lab approach is the emphasis on community-driven innovation in real-life settings, where researchers, end-users and other stakeholders engage in an iterative process aimed at finding optimal solutions to complex real-life problems (Van der Walt, J.S., Buitendag, A.A.K., Zaaiman, J.J. and Van Vuuren, J.C.J. 2009). A Living Lab approach in this case, is therefore not to be perceived as representing a place, an institution or a facility, but rather an iterative process of collaboration and engagement between various stakeholders, including mainly end-users.

The premise of this poster is to highlight the Living Lab approach adopted for the development of the Regional Spatial Profiler (RSP) component of the Integrated Planning and Development Modelling (IPDM) project. The RSP is showcased in this poster as one particular example of innovative Urban Planning mechanism developed with end-users using a Living Lab approach in their real-life settings. The aim of the RSP was to make a contribution to regional scale spatial and development planning by providing accessible and comparable spatial information to planning practitioners in government.

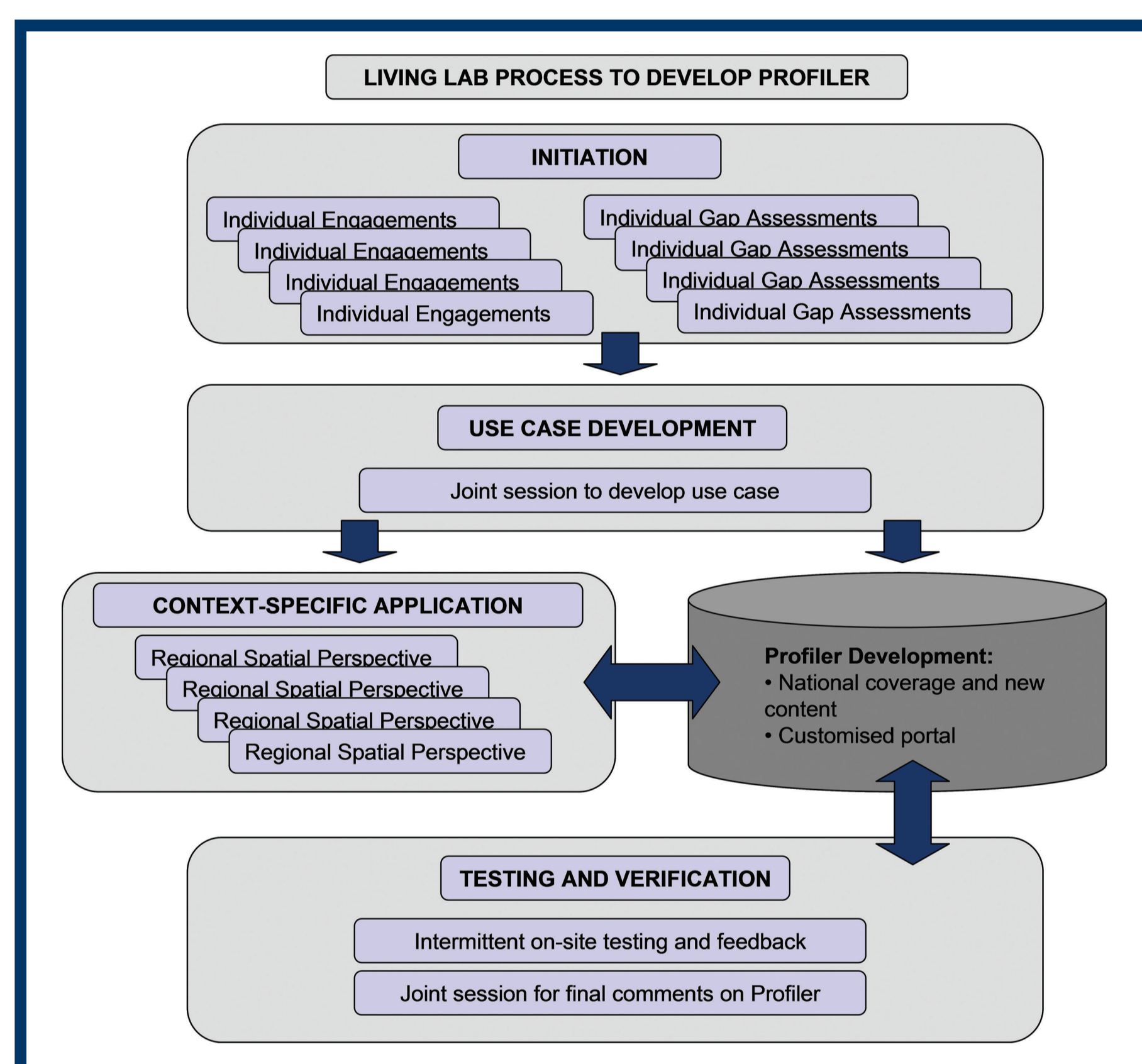


Figure 1: Schematic illustration of the Living Lab process

The information was provided in the form of maps and tables that end-users could view and download from a web-based portal termed StepSA. The Living Lab approach within the RSP comprised a series of interactive sessions with end-users in their real-life contexts, to ensure both the relevance of the tool, and their participation and collaboration in the process of developing, testing and applying the RSP.

## METHODOLOGY

The CSIR team engaged various municipalities through a joint Living Lab session, with the aim of acquiring sufficient input on a 'gap assessment' to determine the respective municipalities' user-needs, and potential use-cases for the development of the RSP. The Joint Living Lab assumed a collaborative character where researchers, municipal officials and members of the technical development team engaged each other and shared ideas, as they worked towards finding solutions to planning problems in their respective municipal communities. Representatives from each case study area, the technical team, IPDM project interns, and students engaged in a two-day collaborative course. The collaborative sessions consisted of various practical work sessions, where participants confirmed and refined the use-case, and set out detailed user requirements in terms of both the Profiler content and its dissemination via the RSP portal.

## REGIONAL SPATIAL PROFILER: CASE STUDIES

The Living Lab approach in the RSP was intended to 1) contribute to bringing science and innovation closer to the municipal planning official; 2) result in more accurate and reliable products and services; and 3) increase the understanding of the spatial trends and phenomena which the RSP revealed. It had to tackle the challenges of concept design and implementation in a multi-user environment where the RSP 'solution/product' has to serve a range of actors and users representing unique and specific contexts.

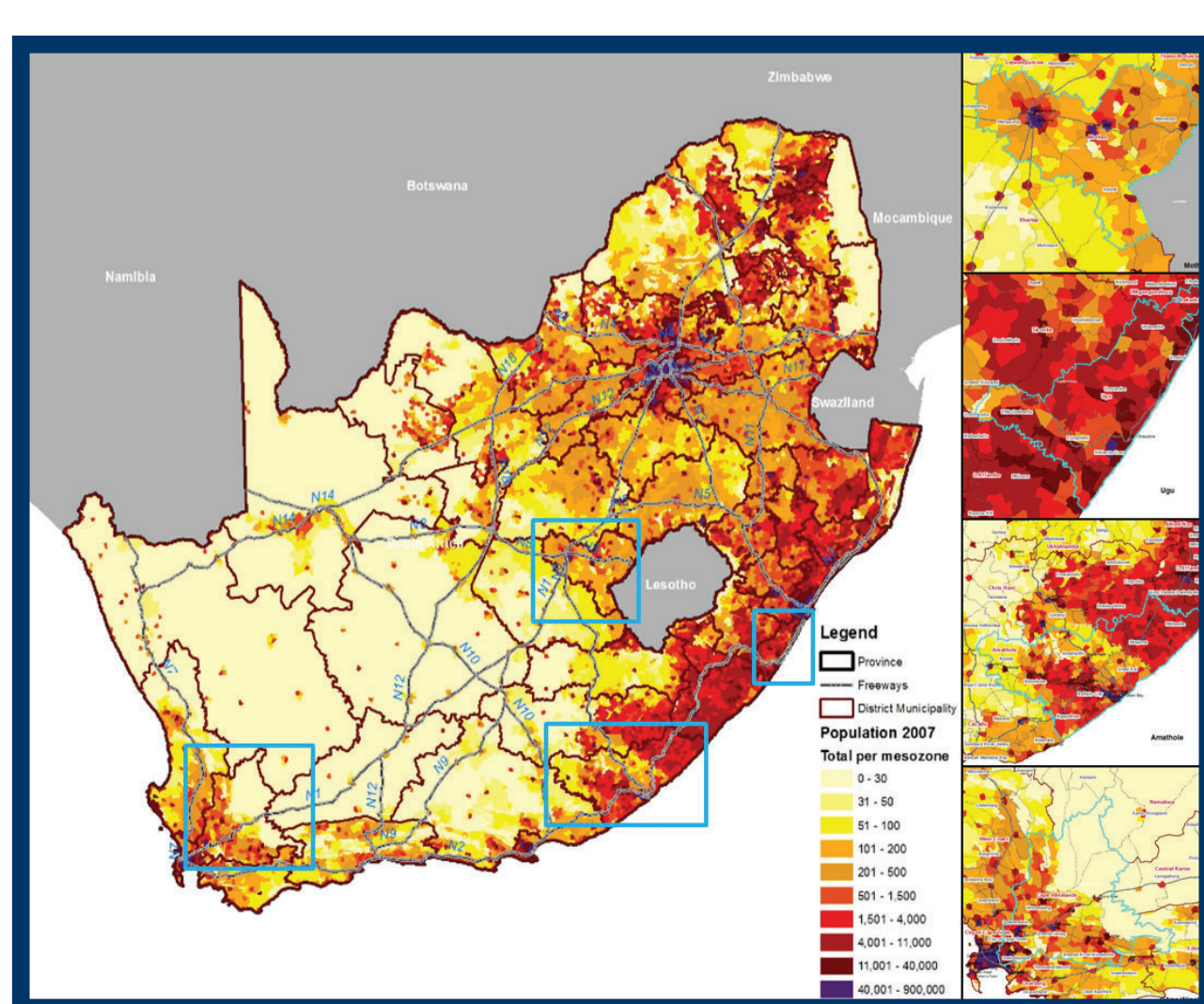


Figure 2: RSP Living Labs locations



Schematic illustration of StepSA

In the RSP Living Lab process, it was decided to work with designated representatives from four pilot municipalities. These municipalities (Cape Winelands DM, Ugu DM, Amatole DM and Mangaung LM) were carefully selected to characterise a range of capacity and types of municipality. Engagement with the champions and with broader groupings in the respective municipalities took place in individual engagements with each municipality, and then in a joint Living Lab session.

As a key requirement for a successful Living Lab, end-users were brought in at the early stages of product development. During the Living Lab process, participating municipalities made contributions on user specifications for both the content and web-based dissemination of the RSP. They also participated in on-site testing of the prototype in their municipal contexts, and in a joint Living Lab session. The process culminated in the demonstration and application of the RSP in each of the four case study areas, and the outcomes involved enhancing the spatial evidence base that informs the integrated development planning and spatial planning processes.

## DISCUSSION OF FINDINGS AND LESSONS LEARNT

This section draws on the feedback from facilitators and technical experts involved in the Living Lab processes, as well as on feedback provided by the end-users and municipal officials involved. It attempts to draw out lessons that were learnt from adopting a Living Lab approach for the development of the RSP.

### 1. A strong value-proposition is required

It was found that users would like to use only tools that they believe work, and with a strong perceived value statement in terms of, for example, time savings or quality improvements to their work outputs. End-users are not impressed with research for the sake of research itself. Their primary concern is tools that address their daily work challenges.

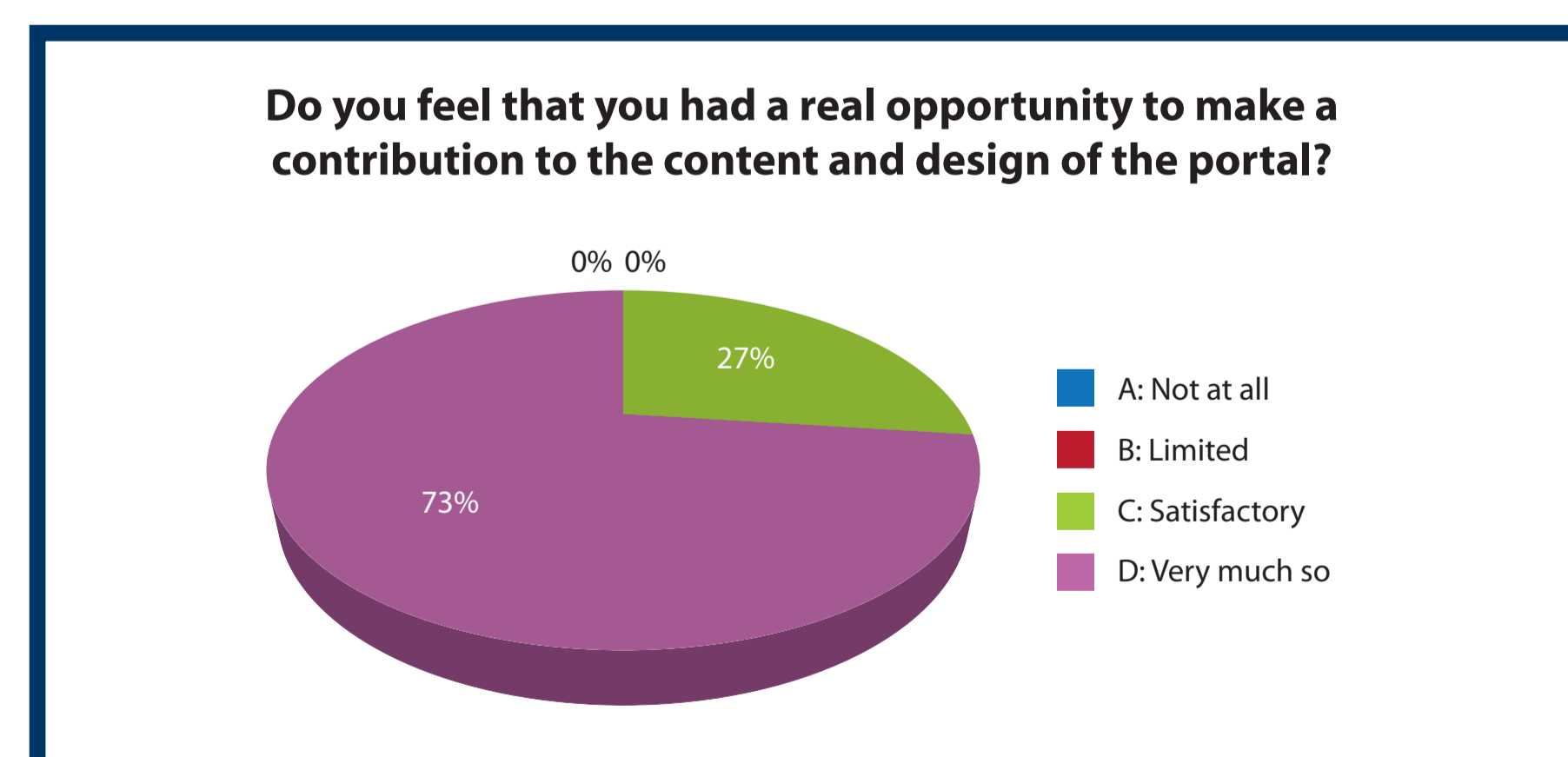


Figure 3: End-user's views regarding the customisation of StepSA portal in the Living Lab process

Officials indicated that their municipalities "benefited tremendously from the information gathered" in the RSP, with others highlighting that it would help with their reporting practices.

### 2. Time and budget demands of living lab processes

The external and internal demands on municipal staff are enormous, and this often affects their availability and capacity required to participate meaningfully and consistently in the Living Lab processes. The fact that Living Laboratory processes are, by definition, iterative in nature also tends to make them demanding in terms of time and budgets. Furthermore, the process of establishing Living Lab processes took longer than expected, as many conflicting needs had to be mediated.

### 3. Managing the process and setting up appropriate institutional arrangements

Living Lab processes, as outlined above, are time and resource intensive. A key aspect of managing these processes is that of managing expectations. This was

*In developing and customisation of the Regional Spatial Profiler as a tool to provide spatial evidence for strategic planning in municipalities, the adopted Living Lab approach became an innovative basis through which the CSIR team engaged various stakeholders and end-users in the quest for optimal solutions to complex and context-specific real-life problems.*

found to be a challenge in the RSP Living Lab processes. Institutional factors such as size of the administration, capacity, organisational culture, and political stability played an important role in the effectiveness of the participatory Living Lab processes in the respective municipalities.

### 4. The need for a dedicated champion and working group

It is critical to find the right champion and team of people to work with. These champions must enjoy the support of senior management, and Living Lab processes should be alert to not aligning with isolated technical groups or cliques within the municipality. It is recommended that more time is spent with the project champions before the initiation of the process.

### 5. Two-way learning process

The participatory and communicative approach within the IPDM leads to a two-way learning process, which shapes project interventions to local needs, opportunities and constraints. Researchers and facilitators must also be able to draw lessons in the process, and feed that information to make better future Living Labs.

## CONCLUSION

The poster started by outlining what is understood by a Living Lab approach, and then complemented this understanding with a reflection on the dynamics and challenges encountered in the application of this approach during the development of the RSP. Based on this experience, some pointers were provided regarding the future application of the Living Lab approach, and processes in similar future projects.

## REFERENCES

- Van der Walt, J.S., Buitendag, A.A.K., Zaaiman, J.J. and Van Vuuren, J.C.J. 2009. 'Community Living Lab as a Collaborative Innovation Environment', *Issues in Informing Science and Information Technology*, vol. 6, 421–436.
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