

Shaping cities for better quality of life - Fostering collaboration through Living Labs

Part 2: Living Lab

Abstract

In this learning unit a comprehensive definition of a Living Lab is given. In the next step, the design thinking approach is introduced and discussed. This approach will provide a basis for your work in the following units.

Objectives

After completing this unit, you will be able to ...

- define a Living Lab
- apply basic methodology and tools towards the development of a Living Lab
- deploy the design thinking approach

1. What is a Living Lab

Enhancing quality of life in cities is a challenging process. There are many social, economical, cultural and environmental factors that affect our lives. Therefore, it is not possible to generate a single blueprint that can be applied in other contexts. However, an enhanced collaboration of different groups of people in the urban management and planning could help manage this process in a more effective and efficient way, leading to better outcomes.

A **Living Lab** can be defined as a low-threshold place of cooperation, learning and co-creation of solutions for solving complex problems, whereby an **Urban Living Lab** refers specifically to problems in the context of smart and sustainable cities.

Built upon the principles of **voluntary collaboration and equal participation**, an Urban Living Lab brings together all relevant urban actors, ranging from local government officials and policy makers to developers, investors, entrepreneurs, NGOs and citizens.

The core aim is to provide a temporary, open and creative **space for experimentation** where innovative, breakthrough ideas and solutions can emerge. These ideas can be then tested (prototyping), evaluated within a real life context, and, optimally, implemented at a city or neighborhood level.

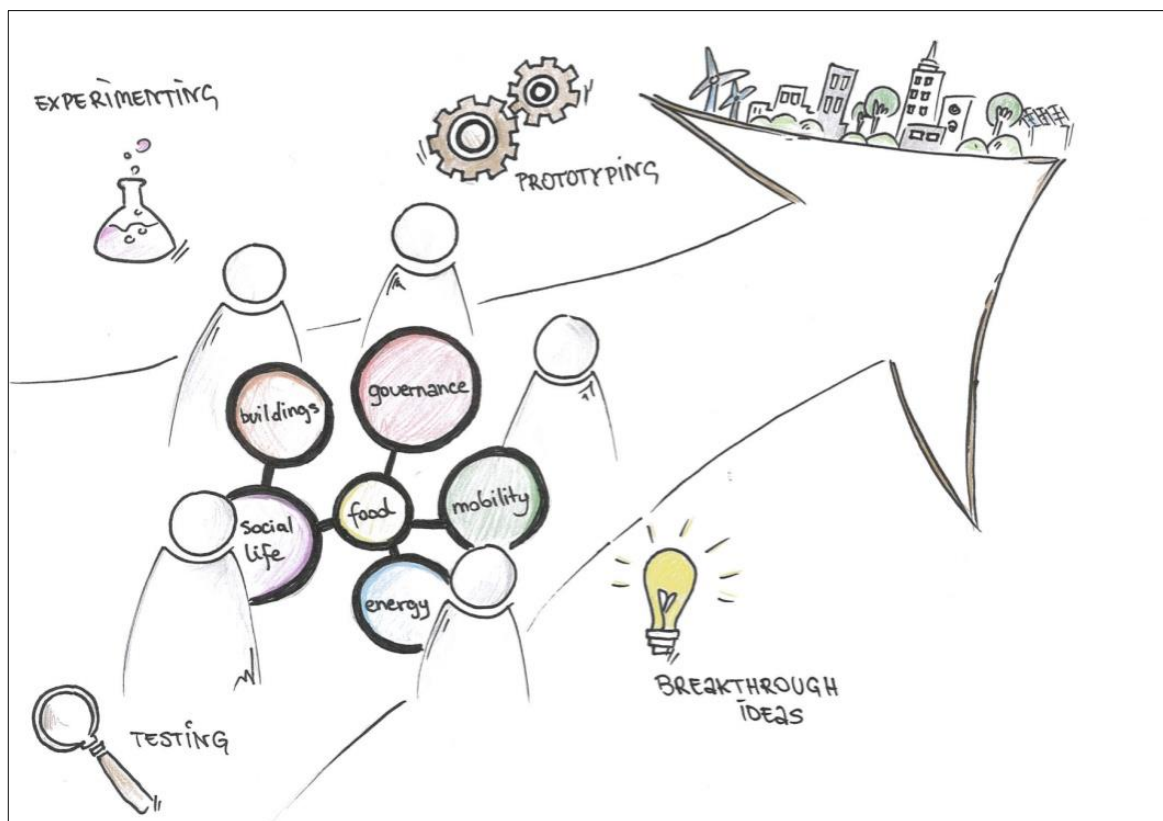


Figure 1: A graphical representation of an Urban Living Lab. Source: SMACC

Although Labs differ in forms (virtual and physical lab) and topics (energy lab, mobility lab, social lab, etc.), several common elements can be distinguished, which include citizen engagement, value co-creation, real-life experimentation, mutual learning processes, collaboration between actors from different disciplines as well as use of new media and social networks.

TIP



As of today, the [European Network of Living Labs](#) (ENoLL) has over 170 active members worldwide. The network elaborates on various topics concerning urban development and smart cities, including energy efficiency, sustainable mobility, social innovation and social inclusion, e-government and e-participation, regional, territorial and rural development of smart regions, sustainable mobility, and security, among others.

2. Techniques for setting up a Living Lab

A Living Lab combines various methods and tools for supporting collaboration between different participants. The methods include **design thinking** approach, [prototyping techniques](#) as well as **other innovation** practices, such as learning journeys, [social safaris](#) or [participatory planning](#). It also integrates a broad range of the **advanced**

facilitation and hosting tools, such as [art of hosting](#) and mediation.

In this unit we introduce design thinking approach, a method that allows different participants to work together in order to generate creative solutions for their specific challenges - a process that we call co-creation.

DESIGN THINKING¹ is a formal method for practical, creative resolution of problems and creation of solutions, with the intent of an improved future result.

Design thinking process begins with a **goal**, an improved, desirable future situation, and sets the challenge from that goal. It uses a practical creative method based on exploring different alternative solutions simultaneously. This process differs from the analytical method, which is problem-oriented and begins with defining all aspects of the problem in order to come up with a solution. The design thinking process is also:

- **human centred**, it begins from a deep empathy with and understanding of the needs and motivations of all involved people.
- **collaborative**, it takes into account views, knowledge and experience of multiple stakeholders.
- **experimental**, it allows to test different solutions, succeed and move on, or fail and learn from mistakes.
- **iterative**, it means that there can be more cycles of ideas/solutions/testing before the challenge is solved.

The design thinking is a well-suited method to be used in the context of Living Labs, since they deal with the so-called "wicked problems" - ill-defined, tricky and complex challenges that are often intertwined with other issues. This kind of challenges needs a co-creative approach.

Co-creation allows to share ideas and insights, and connects all relevant stakeholders in a search for alternative, more suitable solutions to their specific challenges. At the same time, a stronger network of actors can be created that might support a long-term implementation of the best solutions within the city.

Design thinking helps to be creative and innovative. It begins with finding more background information and inspiration, followed by selection of a specific challenge. In the next step, ideas are generated and refined; the best ideas are then chosen for an actual implementation. Then the process is evaluated and, if necessary, repeated and improved.

Watch this video to find out more about the design thinking approach:

<https://www.ideo.com/pages/design-thinking>

Book tip:

Problem solving with design thinking:

<https://yourstory.com/2015/05/problem-solving-with-design-thinking/>

¹ https://en.wikipedia.org/wiki/Design_thinking

For the purpose of this training programme, a modified version of design thinking process divided into five phases is proposed. This new model has been elaborated upon the original scheme proposed by IDEO (2012) in the toolkit 'Design thinking for educators'.

These modified phases are: DREAM - FOCUS - CREATE - DELIVER and REFLECT.

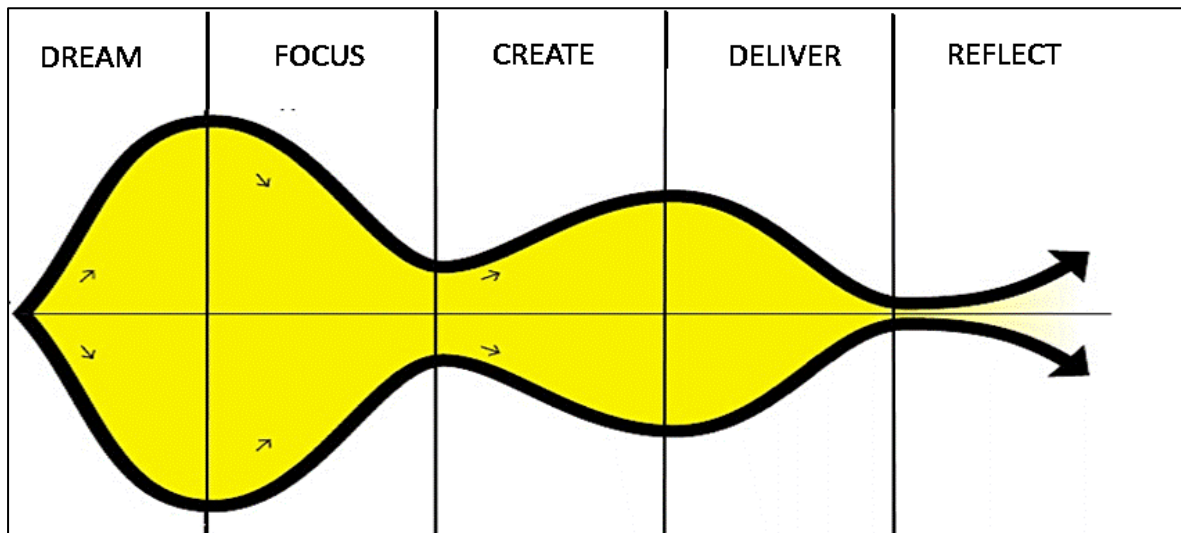


Figure 2: Der Design Thinking-Ansatz. Quelle: SMACC nach IDEO, 2012

In the **DREAM** phase, problems and challenges as well as future visions and desired outcomes for a city are identified. Then you **FOCUS**, synthesise your findings and set the boundaries for your work. In the **CREATE** phase, you explore a wide variety of possible ideas and solutions and develop actions to solve (a part of) your challenge. In the next step, you **DELIVER** this solution by testing it in the real world and gaining feedback. Finally, you **REFLECT** on the performance, impact and results of your work, and decide on the next actions, which can range from redesigning the outcomes to an actual implementation.

In the following five units a look closer will be put on these phases, providing you with a stepwise guidelines for setting-up your own Living Lab. Within each unit a comprehensive description of the major steps as well as useful instructions and tools are given, supported by a series of practical exercises.

HINT

Here you can download IDEO's "Design Thinking for educators toolkit" that provides you with instructions to explore Design Thinking: <http://www.designthinkingforeducators.com/>
For more information on the Design Thinking approach go to the section "More resources" at the end of this course.

Impressum

Published by:

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Layout: e-genius –Open Education Initiative

January 2017

Project: SMACC – Smart City Coaching



Co-funded by the
Erasmus+ Programme
of the European Union

This learning unit was funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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