



PROJECT H2020

LIVERUR

Living Lab Research Concept in Rural Areas

DELIVERABLE 5.2:

**Testing Pilot Regions Orientations for
the Toolbox**

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EXECUTIVE SUMMARY

The **LIVERUR** project's short-term objective is to improve knowledge of business models that grow in rural areas, including the understanding of their potential. In the long term, the project will increase the potential for rural economic diversification.

To achieve these goals, a new business model for circular rural Living Labs was developed, the RAIN Business Model Concept (D.4.3). It is being tested in 13 Pilot Regions, with their own specificities and cultural contexts. This Toolbox was developed in order to assist in this process and aid each Pilot Region to adapt that business model to its local environment, providing existing complementary tools. The Toolbox was designed with an action-oriented mindset, privileging an objective approach to the different features of Living Labs.

The Toolbox structure is inspired by the Harmonization Cube, presented by Mulder et al. (2008) and adopted in **LIVERUR**. Therefore, it comprises five chapters regarding structural issues, with tools to assist in their planning and implementation, namely user's involvement (10 tools), service creation (6 tools), infrastructure (5 tools), governance (6 tools), and innovation outcomes (5 tools).

However, before venturing into these issues, there is a chapter dedicated to the "purpose" of the Living Labs, that is, to the definition of a long-term vision for the initiatives, since it is considered a key aspect in all the process. This Toolbox is complemented by other document with a special focus in action, comprising a step-by-step guide to set up a pilot Living Lab. It includes specific programs for project's development, stakeholders and communication and the guidelines to co-create the RAIN Business Model previously developed in work package 4.



INTRODUCTION

LIVERUR is a pioneering H2020 project addressing Living Lab concepts, circular economy and the creation of new business models for rural enterprises in Europe and beyond.

LIVERUR project aims to introduce the Rural Living Lab research methodology in SMAEs framework, in order to identify and analyze various business model approaches and, to that, create benefit, social cohesion, jobs, stakeholders' integration, actors' inclusiveness and business resilience through the development of an innovative business model for rural enterprises based on the concept of Rural Living Labs (RAIN).

This Business model will be integrated into an online platform (RAIN platform) to ensure accessibility and sustainability.

Task 5.2 of the project aimed at the implementation of the guideline developed in task 4.4 and testing of the newly created regional circular Living Lab technique in the Pilot Regions. The starting point for this task was the framework of guidelines for the implementation of the regional circular Living Lab approach developed in task 4.4. This task was devoted to test the newly developed concept of circular Living Lab, with the objective of boosting competitiveness and innovation in rural businesses on the main 4

pillars of **LIVERUR**: Environment and Resilience; Competitiveness of SMAEs: Resource Protection and Management and New Markets.

A Circular Living Lab Toolbox has been developed in order to provide complementary help all the Pilot Regions implement the framework in their regions, and includes guidelines on how to manage a Living Lab, a special RACI-like matrix with the results from the stakeholders analysis done in task 5.1., and material for their involvement and active participation, having as orientation the action catalogue (<http://actioncatalogue.eu/search>).

The Toolbox includes a complementary programme dedicated to capacity building with activities addressed to Start Ups and SMAEs with New Business Model Ideas and on how to use the newly developed RAIN Business Model. It consists of a set of training and mentoring programmes on the New Business Model, with the objective to support and help in the development of new business ideas for the companies in partner regions.

The Circular Living Lab Toolbox has the steps to be carried out and a set of tools that can be used during the pilot implementation process:

- (i) Toolbox Overview and RAIN Business Model;
- (ii) Purpose;
- (iii) User Involvement;
- (iv) Service Creation;
- (v) Infrastructure;
- (vi) Governance;
- (vii) Innovation Outcomes;
- (viii) Setting up a Pilot Project.

Due to the nature of the pilot projects and to the complex essence of the Living Lab concept (to which are added other complex concepts, like Open Innovation, Circular Economy, Digitalization of SMEs, and Rural Development), there was the need to adjust the projected contents of the Toolbox along the process. For this reason, additional resources have been developed and are part of the final package, in order to facilitate the implementation. The resources include explanatory videos and a step-by-step guide that includes a specific program for project's development, a stakeholders' engagement program and a communication program.

1 OBJECTIVES & METHODOLOGY

1.1 Objectives of Deliverable 5.2

1.1.1 Introduction

Living Labs are open innovation ecosystems based on a user-centered approach, co-creation, applied research and pilot-testing. The **LIVERUR** project's short-term objective is to improve knowledge of business models that grow in rural areas, including the understanding of their potential. In the long term, the project will increase the potential for rural economic diversification. To achieve these goals, a new business model for circular rural Living Labs (RAIN) was developed, aiming to be tested in 13 Pilot Regions, with their own specificities and cultural contexts. A Toolbox has been created in order to assist in this process and aid each Pilot Region to adapt that business model to its local environment.

1.1.2 General objectives

The Toolbox was designed with an action-oriented mindset, privileging an objective approach to the different features of Living Labs. Its fundamental goals are to support the creation of Living Labs that will be testing the RAIN business model.

1.1.3 Specific objectives

The Toolbox has been created with specific goals in mind, aiming to answer objectively and efficiently to **LIVERUR's** demands. The objectives are:

1. To introduce tools to help setting up Circular Rural Living Labs (and pilot projects);
2. To identify tools to help users of the Living Labs;
3. To have flexible tools, adjustable case-by-case;
4. To compile easy and ready to use tools;
5. To learn good practices (from other contexts and Living Labs);
6. To import tools from other (already tested) Toolboxes.

1.2 Methodology applied in Deliverable 5.2

1.2.1 Core Principles

As explained, the Toolbox has been designed with an action-oriented mindset, privileging an objective approach to the different features of Living Labs. It is solidly based on core principles, both from a theoretical nature and a practical essence, with the aim to increase its applicability and functionality. The main concern behind this “mindset” was supported by the need to facilitate the actual implementation of Circular Rural Living Labs, based on the new business model (RAIN), as well as pilot projects in rural regions with limited understanding about the concepts of open innovation, Living Labs, circular economy and digitalization.

The research process that initiated the Toolbox construction was mostly based on desktop research and on the analysis of secondary sources, including some of the deliverables produced in previous stages of the **LIVERUR**'s project. After that, a co-creation process was carried out. Beyond the team working on this document, a very big set of external resources were brought to the process in order to identify the best tools for the job. When the Toolbox got to a solid structure and content, a draft was presented to all the project's partners in the 3rd consortium meeting. Some specific issues were discussed, and important feedback was collected. The Toolbox was, then, improved based on that feedback, and later complemented with a step-by-step guide, guidelines to co-create the RAIN Business Model developed in D 4.4. and support videos.

From a theoretical perspective, the Toolbox development has been based on research regarding Living Labs and open innovation ecosystems. For that reason, the underlying construct that supports the structure of the Toolbox is the “Harmonization Cube” proposed by Mulder et al. (2008). This is further explained in the next subheading. The same paper also brings to light the “most relevant aspects to consider” when setting up Living Labs. That was seriously taken into consideration and included in the Toolbox. Additionally, with the aim of leveraging the existent knowledge and best practices in what regards Living Labs in Europe, several resources from the European Network of Living Labs (ENoLL) were studied and analyzed thoroughly. This provided insights about the “common elements on Living Labs”, which also guided the construction of the Toolbox.

Finally, the work developed on the previous stages of the **LIVERUR** project was critically important to the approach taken to the Toolbox. On the one hand, it was vital to answer to the project's philosophy and keep a consistent articulation between different concepts, namely Living Labs, circular economy, and rural development. The new business model concept, RAIN, was an important piece in this equation, as it provided the main guidelines and touchpoints to that goal.

1.2.2 Structure

The Toolbox's structure has been inspired by the Harmonization Cube, presented by Mulder et al. (2008) and adopted in **LIVERUR**. It comprises an introductory chapter and six technical chapters regarding structural issues, with tools to assist in their planning and implementation. The Toolbox is basically an ordered collection of tools to help setting pilot Living Labs, but it can also be useful to help the users of the Living Labs when developing their projects. Like any other Toolbox, there are many tools that users can choose from according to their needs and goals.

The Toolbox was inspired by good practices from other contexts. It comprises ready to use tools that can be easily put into practice. The vast majority of these tools is not original and has been imported from other Toolboxes. They have all been widely tried and tested, proving their usefulness and simplicity. This was a critical concern when choosing which tools to include, as the fundamental goal was to facilitate implementation and daily operations.

All the technical chapters have the same subheadings, namely the most relevant aspects to consider, a quick reminder of the theoretical constructs around the Harmonization Cube, a critical task list, and a toolkit to help users perform these tasks. Additionally, each chapter was structured as a “toolkit” inside the Toolbox, having specific tools to answer the technical issues of that chapter in particular. Consequently, even though advanced users may use the same tool for different purposes, beginners will understand that some tools are more appropriate to tackle specific tasks. All the tools in each toolkit are presented in the same way. There is a short description and a link (where more information can be consulted), as well as a brief step-by-step guide on how to use the tool. There is also one practical hint and a visual demonstration of the tool, so users can see how it looks.

In what regards the content, the concept of Circular Rural Living Labs is briefly explained in the introductory chapter, which also comprises a very superficial approach to the Harmonization Cube and an overview of the RAIN business model. This chapter sets the tone for the other components of the Toolbox and summarizes how it should be used.

While the Harmonization Cube has six critical elements (corresponding to the six faces of the cube), the Toolbox’s technical chapters do not follow exactly that structure. Following the introductory chapter, the spotlight is on “Purpose”. This is not an element of the Harmonization Cube, but it was deemed as a necessary component of the Toolbox to help pilot projects (and future Living Lab initiatives) make an introspective assessment to understand why they are really implementing Living Labs and what they want to achieve in the long run. In fact, the initial feedback received from project partners and pilot projects was that it was hard to some of them to understand what are Living Labs in practical terms and how to make them become real. This first chapter was, then, structured to answer those concerns. Therefore, to facilitate the identification of Living Labs’ purposes, 6 tools were included in the toolkit, namely Mind Map, Problem-Solution Fit, SWOT Analysis, Theory of Change, and Living Lab Worksheet.

The remaining 5 technical chapters include “User Involvement”, “Service Creation”, “Infrastructure”, “Governance”, and “Innovation Outcomes”. Comparing with the Harmonization Cube, the face that is missing is “Tools & Methods”, but this is a feature that is present in all the other chapters and, in a way, represents the practical application of the theoretical construct.

The “User Involvement” chapter is focused on identifying and mobilizing users and stakeholders. It comprises 10 tools, including Stakeholder Database, Stakeholder Matrix, Target Group, People Shadowing, Interview, Questionnaire, People & Connections Map, Personas, Brainstorming, and Workshops.

The “Service Creation” chapter includes 6 tools aimed at helping in the setting a portfolio of solutions that help the Living Labs’ users in developing their projects. These tools are Business Model Canvas, Value Proposition Canvas, Lean Model Canvas, Service Blueprint, Users & Offerings Map, and RAIN Concept.

Five tools are proposed to help planning and organizing the “Infrastructure” of the pilot Living Labs. These tools comprise Physical Infrastructure Model, Testing Spaces, Online Collaboration Tools, Action Catalogue, and Web Analytics.

Issues regarding the daily management of the Living Labs are detailed in the chapter about “Governance”. For that purpose, 6 tools are presented, namely Learning Loop, Causes Diagram, Marketing-Mix, Critical Task List, Scaling Plan, and Spider Web.

Finally, in what regards the actual results that are expected from the Living Labs’ operations and how to focus on their achievement, the chapter about “Innovation Outcomes” has some guidelines. This chapter showcases 5 tools, including Design Thinking, Evidence Planning, Gap Analysis, Life Cycle Assessment, Technology Readiness Level, and **LIVERUR** Project Evaluation Tool.

1.2.3 The Step-by-Step Guide

The concept of Living Lab is, sometimes, hard to understand, let alone to actually implement. For this reason, the Toolbox has been complemented with a step-by-step guide on how to implement a Living Lab to help **LIVERUR** partners setting up pilot projects in their regions. It is based on a step-by-step diagram, that will guide the team responsible for setting up the pilot, through a logical sequence of steps. Additional tools (three) to the ones presented previously were included, although in a different format. The aim is to facilitate the pilots' preparation and the start-up, according to **LIVERUR's** goals. It includes specific programs for projects' development, stakeholders, and communication. The step-by-step guide is also complemented with an Excel file that includes a) each of these programs' structure; b) a detailed planning of the process (based on an action agenda and on a structural agenda), and c) a seven-month implementation schedule.

1.2.4 Support Videos

Finally, to complement all this documentation and going a step further in facilitating its comprehension and application, 9 explanatory videos were created. These videos are available in the RAIN platform website and address the specific content of each chapter of the Toolbox, as well as the step-by-step implementation process. The final section in each video showcases the Azores Pilot Region case study, settled in TERINOV – Science and Technology Park. It shows how to use the Toolbox to structure and implement this type of initiative, as a practical demonstration of the application of the proposed tools.

Video #1: Toolbox Overview

Link: <https://www.youtube.com/watch?v=FCoFhHDQWhk&t=8s>

Video #2: RAIN Business Model

Link: <https://www.youtube.com/watch?v=XZ635dsH-9A&t=1s>

Video #3: Purpose

Link: <https://www.youtube.com/watch?v=FqvJ3gFioQc>

Video #4: User Involvement

Link: https://www.youtube.com/watch?v=7jZxxLgA_Qk

Video #5: Service Creation

Link: <https://www.youtube.com/watch?v=INxzS5suESg>

Video #6: Infrastructure

Link: <https://www.youtube.com/watch?v=xxKEpZDfQOY&list=PLqi0hPYGpiQjrXEedflIvjaeavHIEKwj&index=9>

Video #7: Governance

Link: https://www.youtube.com/watch?v=iGa_WmXIsDw&list=PLqi0hPYGpiQjrXEedflIvjaeavHIEKwj&index=10

Video #8: Innovation Outcomes

Link: <https://www.youtube.com/watch?v=DhxtZTaEwQ&list=PLqi0hPYGpiQjrXEedflIvjaeavHIEKwj&index=11>

Video #9: Setting up a Pilot Project

Link: <https://www.youtube.com/watch?v=5bT-0iB4It0>

2 TOOLBOX

The Toolbox was created with specific goals in mind as to introduce tools to help setting up a Living Lab, identifying tools to help users of the Living Lab, having flexible tools, and adjustable case-by-case, compile easy and ready to use tools, learn good practices, and import tools from other (already tested) Toolboxes. Therefore, the mindset and structure of the Toolbox has been inspired by the Harmonization Cube, presented by Mulder et al. (2008), and adopted in LIVERUR. The Harmonization Cube is a concept that has been contributing to the harmonization of methods and tools in ENoLL (Mulder, 2008). The six dimensions that typify a Living Lab are its base: user involvement, service creation, infrastructure, governance, innovation outcomes, and methods & tools. Organizational, contextual and technological issues are also covered by the model, which comprises 3 main stages of development: Set Up; Sustainability; and Scalability.

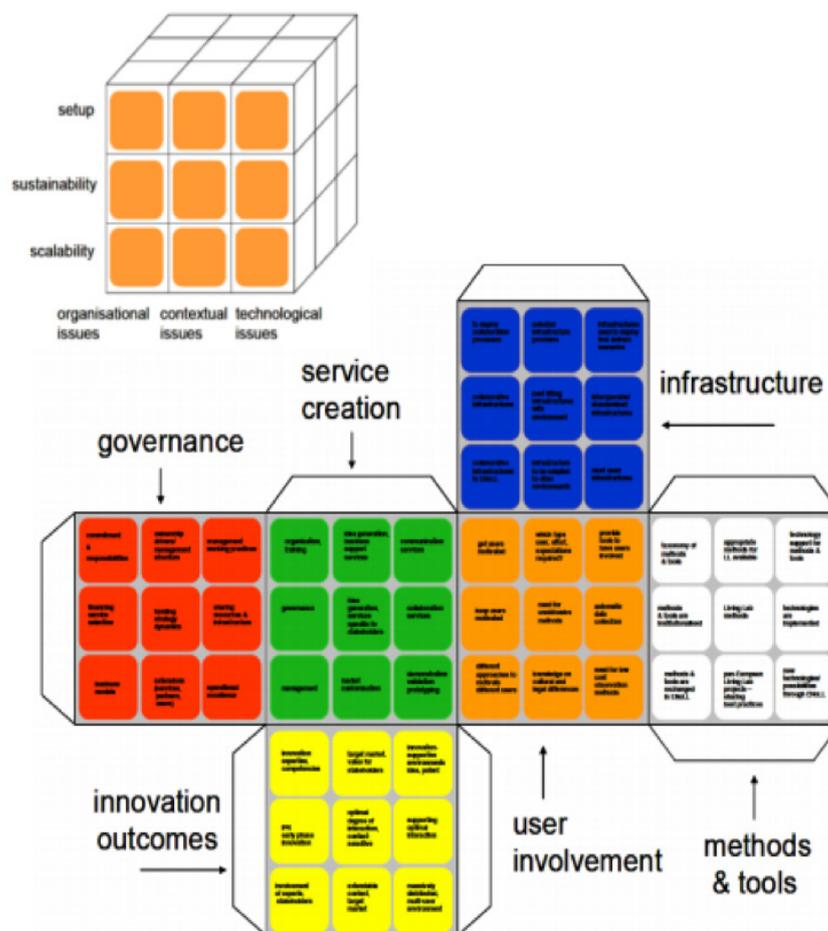


Figure 1 – The Harmonization Cube presented by Mulder et al. (2008).

The Circular Living Lab Toolbox has the steps to be carried out during the pilot implementation process:

- (i) Toolbox Overview and RAIN Business Model.
- (ii) Purpose.
- (iii) User Involvement.
- (iv) Service Creation.
- (v) Infrastructure.
- (vi) Governance.
- (vii) Innovation Outcomes.
- (viii) Setting up a Pilot Project.

2.1 Structure of the Toolbox

2.1.1 Purpose

Before Setting up a Circular Rural Living Lab, it is of critical importance to clearly define its purpose. A long-term vision should be established, considering the economic and social needs of the rural community where it will be set up, as well as the local potential of a circular economy approach. It is also important to consider how to sustainably relate these values with the incentive of community-driven open innovation and of user-centered research. At the same time, bridges with other Living Labs and communities should be created.

The Toolkit starts with objective questions, such as: “Define the purpose of your Living Lab. Why is it being created? What is your ultimate aspiration?”, “What needs/challenges/problems will the Living Lab be addressing?”, and “Why are you motivated to create the Living Lab?” and after provides tools that help the Living Lab coordinator to get answers from its stakeholders.

The suggested tools within the toolkit under “**Purpose**” are i) Mind Map; ii) Problem- Solution Fit; iii) SWOT Analysis; iv) Theory of Change; v) Living Lab Worksheet and vi) Spider Web, based on their potential of easily mapping ideas (page 17 in the attached Toolbox).

2.1.2 User Involvement

This is most evident feature of the open innovation concept. User involvement refers to the ability to identify potential users of a certain product, as well as other relevant stakeholders, and to bring them to participate in the Living Lab and in the design process. Focusing on user-centered solutions, it is vital to involve the right users, as it is critical to motivate them and have the right tools for the job. The goal is to gather as much data as possible, on various stages, without disturbing the users, respecting their privacy and keeping them engaged.

The Toolkit starts with objective questions, such as: “Identify the target users to involve”; “Identify how you can reach your target(s)”; “Describe what you want from your target(s) (i.e., how will they help you?) and what you need to/can give them?”; “Devise a system to engage them and motivate their participation”; or “Reach out to your target(s)”.

The suggested tools within the toolkit under “**User Involvement**” are i) Stakeholder Database; ii) Stakeholder Matrix; iii) Target Group; iv) People Shadowing; v) Interview; vi) Questionnaire; vii) People & Connections Map; viii) Personas; ix) Brainstorming and x) Workshops, selected with an intention of providing instruments to help Living Lab coordinators to identify, gather and involve their stakeholders. (page 33 in the attached Toolbox).

2.1.3 Service Creation

To create value to its stakeholders, a Living Lab must be able to provide services that answer to their needs. Therefore, the service creation dimension refers to the development and to the organization of a service portfolio that should be available to the Living Lab's users, in order to help them in developing their projects. It should comprise technical services, customer services and intra-network services. A clear process for idea generation development and experimentation must sustain the underlying structure of service creation.

The Toolkit starts with some objective questions, such as: "Identify what services are necessary to answer your targets' needs"; "Select the services that you can deliver and describe their value propositions"; "Develop new tools or use existing tools (like this Toolbox) to help you deliver your services"; "Establish a process to deliver your services"; "Identify the training needs of your staff and train them"; or "Create a multi-channel communication system that can raise awareness for the Living Lab, its services and its users/projects".

The suggested tools within the toolkit under "**Service Creation**" are i) Business Model Canvas; ii) Value Proposition Canvas; iii) Lean Model Canvas; iv) Service Blueprint; v) Users & Offerings Map and vi) RAIN Concept to help the Living Lab Coordinator to deliver high value to its users. (page 59 in the attached Toolbox).

2.1.4 Infrastructure

Infrastructure refers to the technologies, networks, services, qualified personnel and resources that are needed to operate the Living Lab, but which it does not control. A proper balance between digital and physical infrastructure should be attained. Some sustain that without physical infrastructure the efficacy and the future of the operation get compromised, while other focus on the digital side. On all, it should be user friendly, widely accessible, contribute to data collection, storage and analysis, safety maximization and compliance with regulations.

The Toolkit starts with some objective questions, such as: "Identify the critical infrastructure for your Living Lab to operate"; "Select the best option for your Living Lab, considering its physical and digital components"; "Identify local infrastructures where the Living Lab can be inserted in (especially those related to entrepreneurship and innovation)"; "Identify the infrastructure you will need to develop/construct/acquire and the one you already have or can easily/freely get"; or "Clarify all questions regarding safety, storage and use of data".

The suggested tools within the toolkit under "**Infrastructure**" are i) Physical Infrastructure Model; ii) Testing Spaces; iii) Online Collaboration Tools; iv) Action Catalogue or v) Web Analytics and they were selected with the objective of helping attain the balance between physical and digital infrastructures, having in consideration the local aspects. (page 77 in the attached Toolbox).

2.1.5 Governance

Finding the correct model to operate, organize and manage the Living Lab is critical for its sustainability. A clear understanding of what is going to be done and how it will be done is needed, defining a course of action and the focus of the Living Lab. Will it specialize in specific sector? Will it be research-innovation, or business driven? These decisions will help to set priorities, establish the proper organizational structure and how members interact with each other, and define how partnerships should function, outline funding, and envision growth strategies.

The Toolkit starts with some objective questions, such as: "Define the organizational structure of your Living Lab, clearly describing roles and responsibilities"; "Establish internal rules, procedures and management practices"; "Build a budget and identify funding mechanisms for the Living Lab";

“Identify potential partners to develop new projects with and to apply or funding”; or “Identify the skills you will need in your team and describe the desired profile of staff members”.

The suggested tools within the toolkit under “**Governance**” are i) Learning Loop; ii) Causes Diagram; iii) Marketing-Mix; iv) Critical Task List; v) Scaling Plan; and vi) Spider Web to support the Living Lab coordination to have analytics, management support tools. (page **93** in the attached Toolbox).

2.1.6 Innovation Outcomes

Achieving measurable and objective results is very important to validate and legitimize a Living Lab’s purpose and operations. Therefore, selecting the best results and working on them, protecting their IPR, as well as promoting joint work and sharing between users is critical to strive for innovation. Living Labs results can include finished ready to launch (or launched) end-user products or services but can also consist of prototypes (high or low fidelity), minimum viable products (MVP), patents, new knowledge or technology, or even usage models.

The Toolkit starts with some objective questions, such as: “Define (clear, measurable and realistic) goals to be achieved”; “Bring in good practices that stimulate innovation and an innovation-oriented work environment”; “Start to follow innovation networks, projects, ecosystems, other Living Labs, etc.”; “Encourage an open minded, disruptive and problem-solving way of working/thinking”; or “Identify partners and mechanisms to promote technology and knowledge transfer, protection and sharing”.

The suggested tools within the toolkit under “**Innovation Outcomes**” are i) Design Thinking; ii) Evidence Planning; iii) Gap Analysis; iv) Life Cycle Assessment; v) Technology Readiness Level; and vi) LIVERUR Project Evaluation Tool, to assess service or product innovation within any context. (page **111** in the attached Toolbox).

2.2 The Business Model Concept

Developing a new viable business model concept in a rural context, merging the Living Lab approach and Circular Economy theory, was a central piece in **LIVERUR**. According to Egarter et al. (2020), this model consists of three layers including RAIN Core Elements (puzzle), RAIN Principles (green circle) and RAIN Real Life Setting (yellow circle). The RAIN Core Elements summarize all the different aspects a business model must take care of. The RAIN Principles comprise the necessary components regarding the ideas of the **LIVERUR** project, including the Living Lab approach, Circular Economy and sustainability. The RAIN Real Life Setting describes the exogenous environment of a business project. The application of the tool is explained with more detail in this Toolbox.

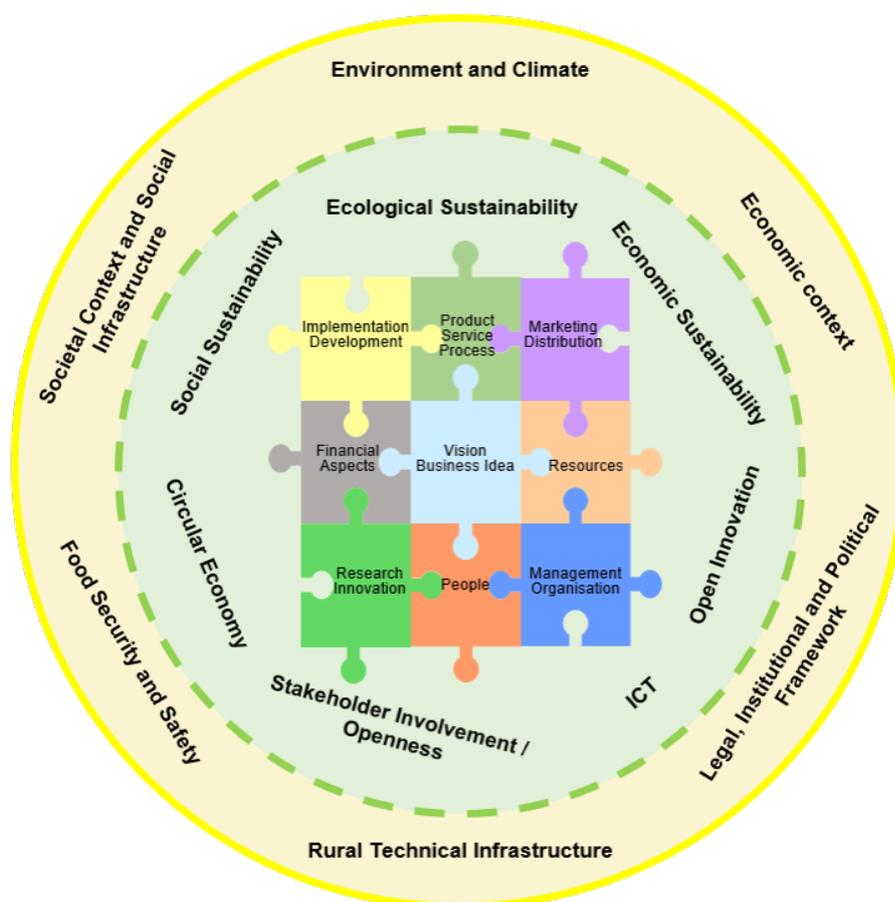


Figure 2 – RAIN Business Model Concept in a nutshell (D4.3)

The RAIN Concept has three layers: the Business Model’s **Core Elements** (jigsaw puzzle), the **RAIN Principles** (inner ring) and the **RAIN Real Life Setting** (outer ring). The layers and their components are interdependent, both within each layer and across layers (Figure 2).

The Business Model’s **Core Elements** capture the central Business Model. The nine suggest Core Elements are: Vision and Business Idea; people (partners, customers, stakeholders); resources; research and innovation; implementation and development; management and organization; financial aspects; product, service, process; marketing and distribution.

The **RAIN Principles** should be embedded in each Core Element. The seven RAIN Principles are: Social Sustainability; Ecological Sustainability; Economic Sustainability; Open innovation; Stakeholder involvement and openness; Circular Economy as well as information and technology (ICT).

The **RAIN Real Life Setting** limits or enables the Business Model. The six topics considered in the RAIN Real Life Setting are: Environment and Climate; Economic context; Societal context and social infrastructure; Rural technical infrastructure; legal, institutional and political framework; food security and safety.

2.3 Guidelines for Piloting RAIN Business Model

The main purpose of the Guidelines for Piloting the RAIN Business Model Concept is to suggest a methodological approach that will assist the co-creation and validation of the RAIN Business Model. For that, the co-creation workshops are an important part of the RAIN Business Model development that will take place on a face-to-face basis, on an online basis, or in a mix of both, depending on the Covid-19 situation in each of the Piloting Regions. In addition to the guidelines for piloting RAIN Business Model for the implementation of the workshops under WP5, the following documents have also been developed: I) **LIVERUR** attendance Sheet Template; II) **LIVERUR** participant's questionnaire; III) Events Report; IV) RAIN Workshop final report, to help and give support to the Living Lab coordinators to fulfill with the information resulting from the co-creation of the workshops. The results of the workshops are important and essential for the success of Work Package 5.

The RAIN concept integrates the central **LIVERUR** topics as Business Models, Living Labs, and Circular Economy in rural areas, and it consists in three layers: the Business Model's Core Elements, the RAIN principles, and RAIN Real Life setting. Applying the RAIN concept to a specific Business Model results in the RAIN Business Model that is documented in the RAIN Business Plan (D4.4). For the development of the RAIN Business Models, it is very important to engage the community. The framework and objectives of the workshops are to involve citizens, researchers, businesses, and policymakers in the co-creation and validation of the 13 RAIN Business Models. It is important to integrate final user's visions and needs into each one of the 13 Rain Business Models that will be co-build.

To meet the objectives all pilot partners should organize co-creation workshops and events to co-create their own RAIN Business Model inside their Living Labs. The workshops will have to address all 9 RAIN Business Model brainstorming sheet. Each pilot region is free to choose the number of workshops they need to address them and the format and should use the **LIVERUR** Toolbox to choose the most suitable format for the co-creation event, for example, brainstorming, action catalogue, online collaboration tools, design thinking.

For the implementation of the workshops, the starting point is recommended to be "Vision and Business Idea", however, there is no general sequence of working on the other elements. It will depend on the phase of the idea or the project. Therefore, for every RAIN Core Element addressed in the workshops, there is a worksheet on RAIN Principles and a set of suggest tools (Figure 3).

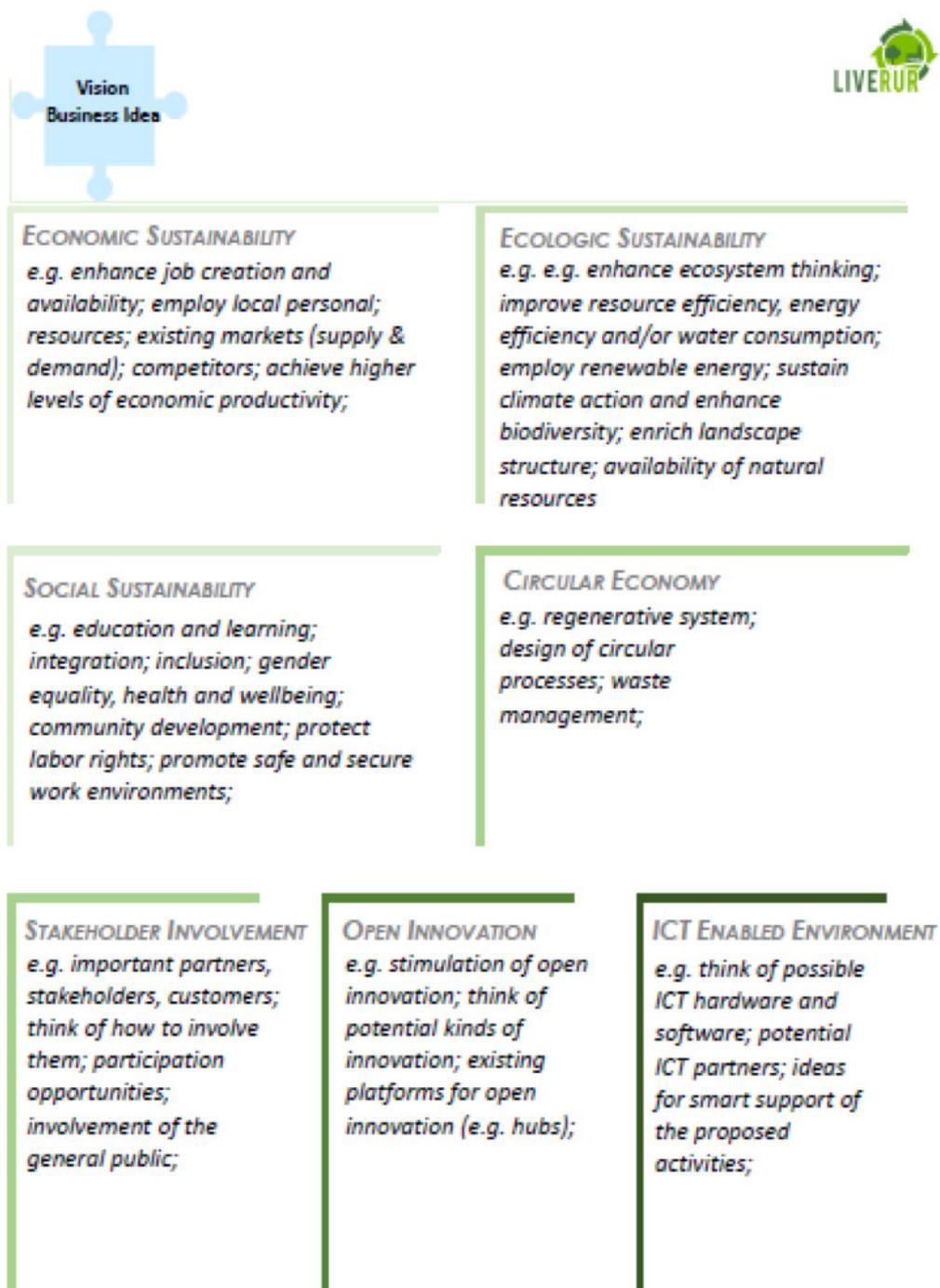


Figure 3 – Brainstorming Worksheets for the RAIN Core Element Vision/Business Idea (D3.4).

For the implementation of the Workshops, Figure 4 shows the RAIN application in **5 Tasks (D4.3)**.

1. To Start: Choose the **RAIN Core Element Vision/Business Idea** and take the regional specific worksheet RAIN Real Life Setting into consideration.
2. Choose one the suggested to elaborate this RAIN Core Element (following the **LIVERUR Toolbox**).
3. Follow the working steps for this RAIN Core Element (Piece of the Puzzle).

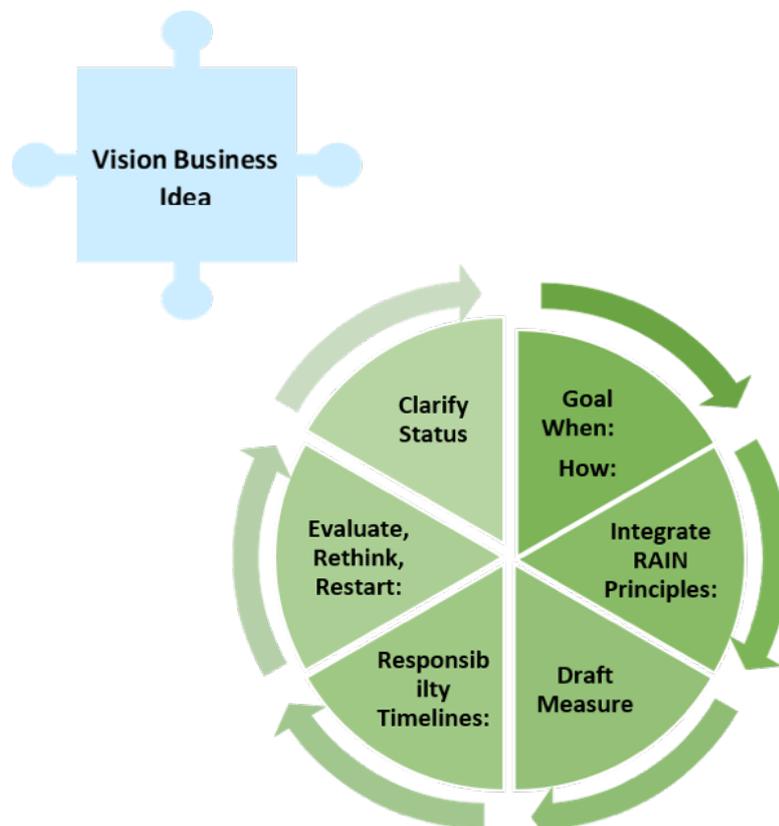


Figure 4 – RAIN Real Life Setting (D4.3)

4. Summarize all findings regarding the chosen RAIN Core Element (corresponds to one chapter of your RAIN Business Plan).
5. Choose Next RAIN Core Element (“piece of the puzzle”). Go back **to task 2** and through all **tasks for all 9 RAIN Core Elements**.



Result: RAIN Business Plan

3 RESULTS & FINDINGS

The discussion of the results and findings of this deliverable is hindered by the fact that Pilot Regions have not yet been implemented in full scale. According to **LIVERUR's** implementation schedule, the next deliverable (D. 5.3.) will bring more data to the discussion and provide the opportunity for that assessment. At this point, however, it is only possible to evidence the outputs that have been created and highlight some considerations about some issues that have emerged throughout the process.

In what regards the outputs, the Toolbox is the main result of this part of the project. It comprises 37 tools to help setting Circular Rural Living Labs. Complementarily, a step-by- step guide includes 3 more tools, which are supported by an Excel file with the complete planning process. Nine videos were created to aid in the understanding and implementation of the Pilot Living Labs. This means a total of 50 features that were especially put together to leverage the success of **LIVERUR** WP5.

During the Toolbox development, the team faced some challenges that may be relevant to consider in the next stages of the project. First, the complex nature of some concepts - especially Living Labs - seems to cause some troubles to the project's implementation and to a generalized understanding of what needs to be done in practical terms. Secondly, some differences between researchers and practitioners have also come to the surface, causing, again, challenges in the exact definition of the practical tasks to be deployed and on their simplification. These difficulties were intensified by the fact that there are many Pilot Regions, each with its own challenges and life cycles, making it difficult to streamline the guidelines and processes. All these issues will be considered during the pilot testing.



CONCLUSIONS

Since the results are very limited at this point, aside from the outputs that have been produced and delivered, conclusions are almost non-existent. Nevertheless, considering the discussion that occurred along the development of the Toolbox, the team is ready to present some qualitative aspects that might have an influence on the success of the Toolbox usage, as well as critical considerations about the project.

One of the first conclusions of the team is that **LIVERUR** faces a huge challenge. Bringing high-end innovation and complex concepts, like Living Labs, open innovation, digitalization and circular economy, to small underdeveloped rural settings can become a huge challenge. There are several challenges that have affected the development of the Toolbox and the complementary material, including language (technical vs. scientific vs. practical), the understanding of theoretical concepts (this includes everyone involved, from research to technical elements), limitations in what regards technology and the availability of resources, education levels, and very different stages of the products' life cycle, to name a few.



It will be interesting to monitor how each pilot project will evolve with the support of the **LIVERUR's** team, how they will be using the Toolbox, and which results will be possible to achieve. The differences that exist between the several pilots will surely bring to light many different challenges, opportunities and needs. This may prove quite valuable to improve the project's final outputs and structural models, but it will probably also bring very different results. In fact, there is a concern in what regards the capacity to deliver what is necessary in each case. The assessment regarding the pilots' implementation will be very important to validate both the project's philosophy and core idea, but also the support work efforts that are being carried out and, eventually, the future of this network.

Finally, another important issue is the future sustainability of the project. If the project's core idea and the RAIN business model are easily understood, there might exist significant steps towards the increase of the potential for rural economic diversification and digitalization supported by a circular economy approach. However, if the ability to appropriately clarify and implement the concept of Circular Rural Living Labs lingers, it will be very hard to assure the continued performance of the pilots or the implementation of future initiatives. The creation of the best practices catalogue should have this in mind and present in a clear, objective and pragmatic way what is this all about and what is expected as final outcomes. To keep using generic definitions, mostly based on academic concepts that are (yet) hard to bring into practice, will only cause more hurdles to the adoption of Rural Living Labs based on **LIVERUR's** innovative business model.



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ANNEXES

LIVING LAB RESEARCH CONCEPT IN RURAL AREAS

TOOLBOX

- Circular Rural Living Labs – Pilot Projects -



TOOLBOX - Circular Rural Living Labs – Pilot Projects



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Executive Summary

The LIVERUR project's short-term objective is to improve knowledge of business models that grow in rural areas, including the understanding of their potential. In the long term, the project will increase the potential for rural economic diversification.

To achieve these goals, a new business model for circular rural living labs was developed. It will be tested in 13 pilot-areas, with their own specificities and cultural contexts. This toolbox was developed in order to assist in this process and aid each pilot-area to adapt that business model to its local environment. The toolbox was designed with an action-oriented mindset, privileging an objective approach to the different features of Living Labs.

The toolbox structure is inspired by the Harmonization Cube, presented by Mulder et al. (2008) and adopted in LIVERUR. Therefore, it comprises five chapters regarding structural issues, with tools to assist in their planning and implementation, namely users' involvement (10 tools), service creation (6 tools), infrastructure (5 tools), governance (6 tools), and innovation outcomes (5 tools).

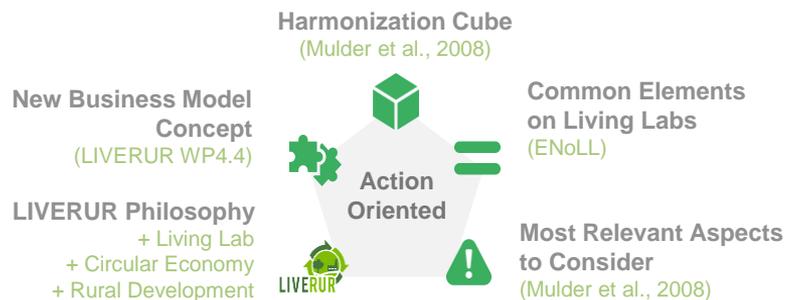
However, before venturing into these issues, there is a chapter dedicated to the 'purpose' of the Living Labs, that is, to the definition of a long-term vision for the initiatives, since it is considered a key aspect in all the process. This toolbox is complemented by other document with a special focus in action, comprising a step-by-step guide to set up a pilot Living Lab. It includes specific programs for projects' development, stakeholders and communication.

Quick Guide

Goals. The toolbox was created with specific goals in mind.

- Introduce tools to help setting up a Living Lab;
- Identify tools to help users of the Living Lab;
- Have flexible tools, adjustable case-by-case;
- Compile easy and ready to use tools;
- Learn good practices;
- Import tools from other (already tested) toolboxes.

Mindset. Core principles support the toolbox content.



Structure. It is organized to put the Cube into action.

Topic	Aim	Toolkit	
Purpose	Vision	Tools	6
User Involvement	Harmonization Cube		10
Service Creation			6
Infrastructure			5
Governance			5
Innovation Outcomes	5		
Setting up a Pilot (Additional Document)	Action	Projects' Development Program Stakeholder Program Communication Program	

Toolkit. Every tool is presented in the same way:

	What is this?	Short presentation of the tool, its purpose and benefits.
	Learn more at:	A link to more information about the tool and its use.
	How to use it?	A brief step-by-step explanation to help new users.
	Quick hint!	One practical hint to help use the tool.
	Visualize it!	A graphical representation / demonstration of the tool.

1

Circular Rural Living Lab

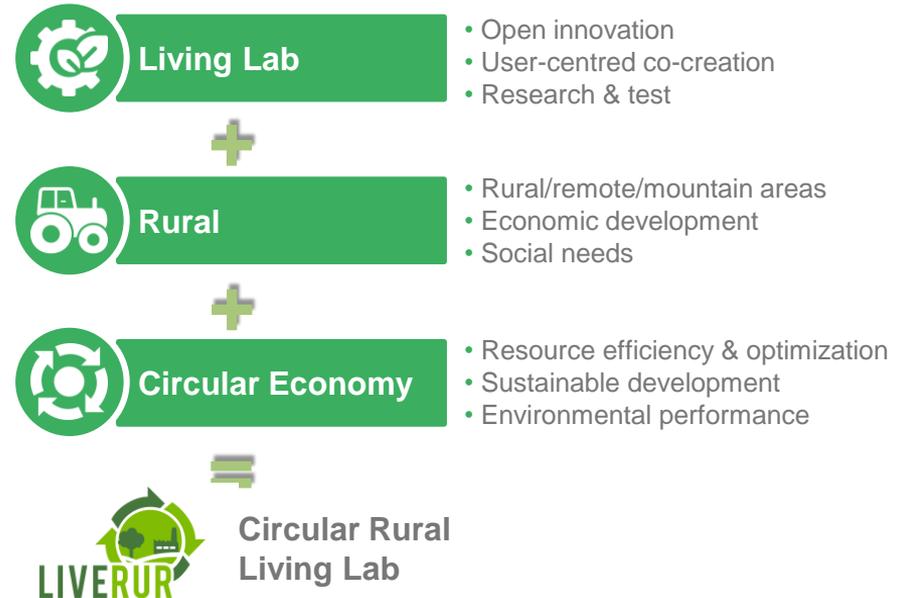
The **LIVERUR** project identifies Living Labs as innovative business models that are being developed in rural areas. To this generic concept, the circular economy principles were added, fostering a disruptive and joint approach to innovation, sustainability and rural development. This ambitious and visionary goal is being supported by theoretical concepts and a new business model, that will be the basis to develop pilot-projects in 13 regions of Europe, Turkey and Tunisia. It can be the beginning of a new matrix for socioeconomic development.

1.1. Definition

According to ENoLL (European Network of Living Labs), **Living Labs** are defined as user-centred, open innovation ecosystems based on a systematic user co-creation approach integrating research and innovation processes in real life communities and settings.

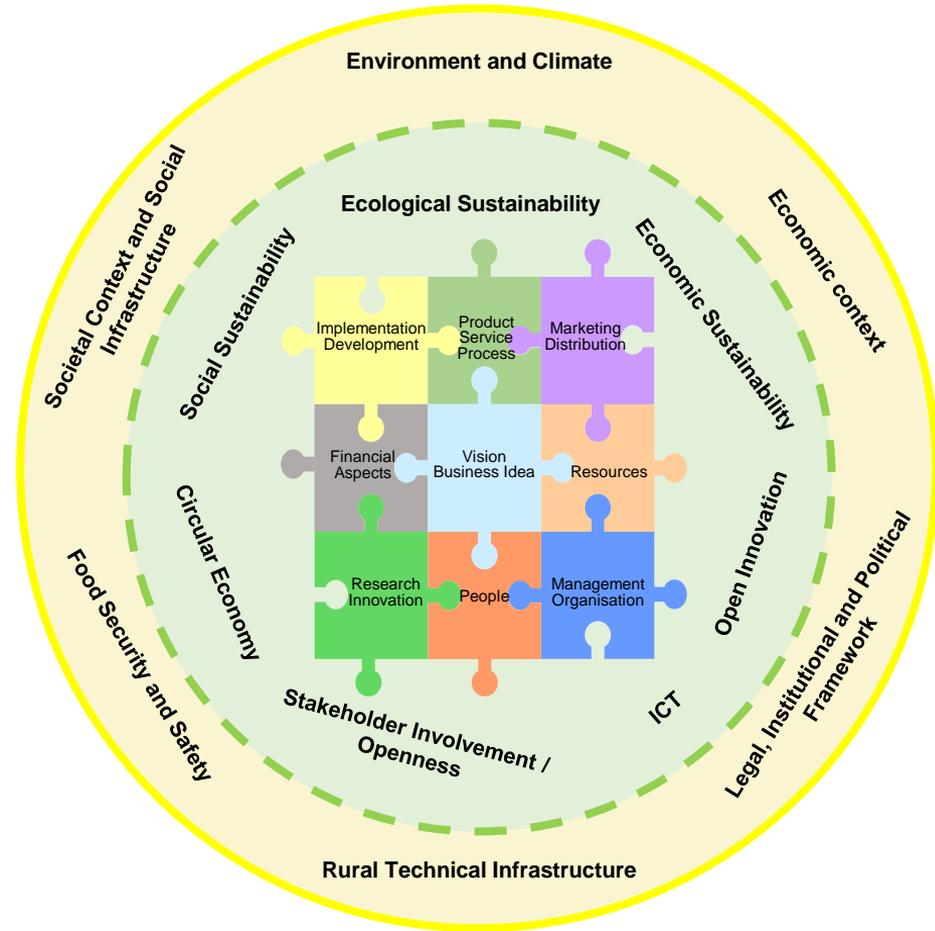
In turn, the European Commission understands that in a **Circular Economy** the value of products and materials is maintained for as long as possible; waste and resource use are minimized, and resources are kept within the economy when a product has reached the end of its life, to be used again and again to create further value.

The basis for the strategic development of a rural Living Lab is to establish an association of sustainable stakeholders. In practice, users, policy makers, businesses and researchers enter into agreements through which they can participate in a longer-term collaboration.



1.3. The Business Model Concept

Developing a new viable business model concept in a rural context, merging the Living Lab approach and Circular Economy theory, was a central piece in LIVERUR. According to Egartner et al. (2020), this model consists of three layers including RAIN Core Elements (puzzle), RAIN Principles (green circle) and RAIN Real Life Setting (yellow circle). The RAIN Core Elements summarize *all the different aspects a business model has to take care of*. The RAIN Principles comprise *the necessary components regarding the ideas of the LIVERUR project, including the Living Lab approach, Circular Economy and sustainability*. The RAIN Real Life Setting describes *the exogenous environment of a business project*. The application of the tool is explained with more detail in this toolbox.

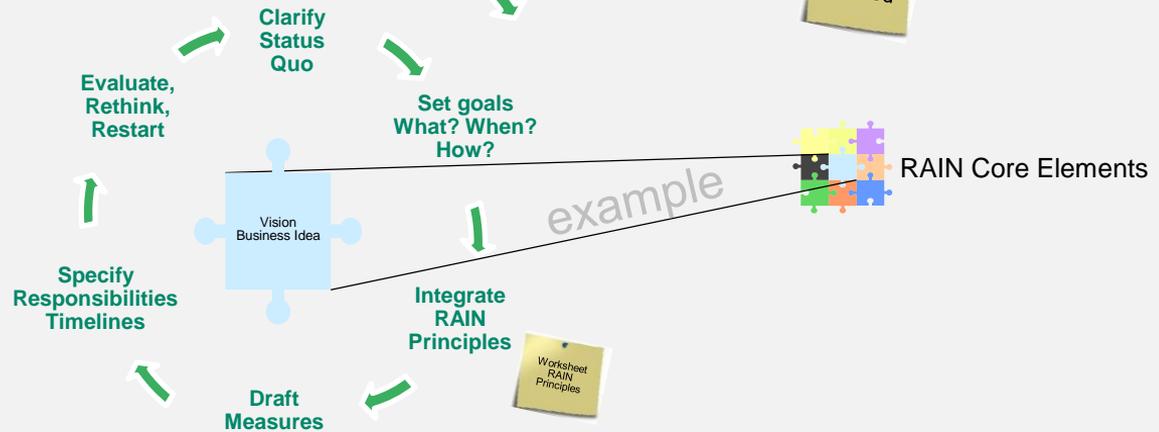


RAIN application in 5 tasks

1. To start: Choose the RAIN Core Element Vision/Business Idea and take the regional specific worksheet RAIN Real Life Setting into consideration.

2. Choose one of the suggested methods to elaborate this RAIN Core Element (following the LIVERUR Toolbox).

3. Follow the working steps for this RAIN Core Element („piece of the puzzle“).



4. Summarise all findings regarding the chosen RAIN Core Element (corresponds to one chapter of your RAIN Business Plan).

5. Choose next RAIN Core Element („piece of the puzzle“) - go back to task 2 and through all tasks for all 9 RAIN Core Elements.

Result: RAIN Business Plan

Worksheet RAIN Principles

Vision Business Idea

When elaborating the vision and business idea, it is crucial to start by asking “Why? – Why do we do, what we do?” (quotation by Sinek, 2011) and it is the customers’ benefits that has to be in the focus of a business plan. The vision creation has to be based on needs and demands and should start with a process to win ideas, rate and select ideas and elaborate rough concepts. Details will be elaborated on the other Core Elements.

Suggested methods: Brainstorming, Brainwriting, Cambridge Value Mapping Tool

WORKSHEET RAIN PRINCIPLES

ECONOMIC SUSTAINABILITY

e.g. jobs creation and availability; local personnel; resources;

SOCIAL SUSTAINABILITY

e.g. education and learning; integration; inclusion; gender equality, health and wellbeing; community development

ECOLOGIC SUSTAINABILITY

e.g. resource efficacy; energy efficiency; water consumption; renewable energy; climate action and biodiversity; landscape structure

CIRCULAR ECONOMY

e.g. regenerative system; design of circular processes; waste management; environmental footprints; recycling;

STAKEHOLDER INVOLVEMENT

e.g. important partners, stakeholders, customers; how to involve them;

OPEN INNOVATION

e.g. stimulation of open innovation;

ICT ENABLED ENVIRONMENT

e.g. possible ICT devices; potential ICT partners

Worksheet Real Life Setting

This worksheet is designed to help entrepreneurs and project managers to take their regional specifics into consideration. The goal is to help in describing the exogenous environment of a business project in order to adjust its development according the ‘real life’ challenges and opportunities that may exist.

Assessment

Check the applicable box :
The Real-Life aspect is to the business model ...

Real-Life topics	Real-Life aspects Describe the aspects of the Real-Life Setting by topic.	Neutral	Opportunity	Threat, Challenge
 Environment and climate	... 			
 Economic context	... 			
 Societal context and social infra structure	... 			
 Rural technical infrastructure	... 			
 Legal and institutional framework	... 			
 Food security and safety	... 			

2 Purpose

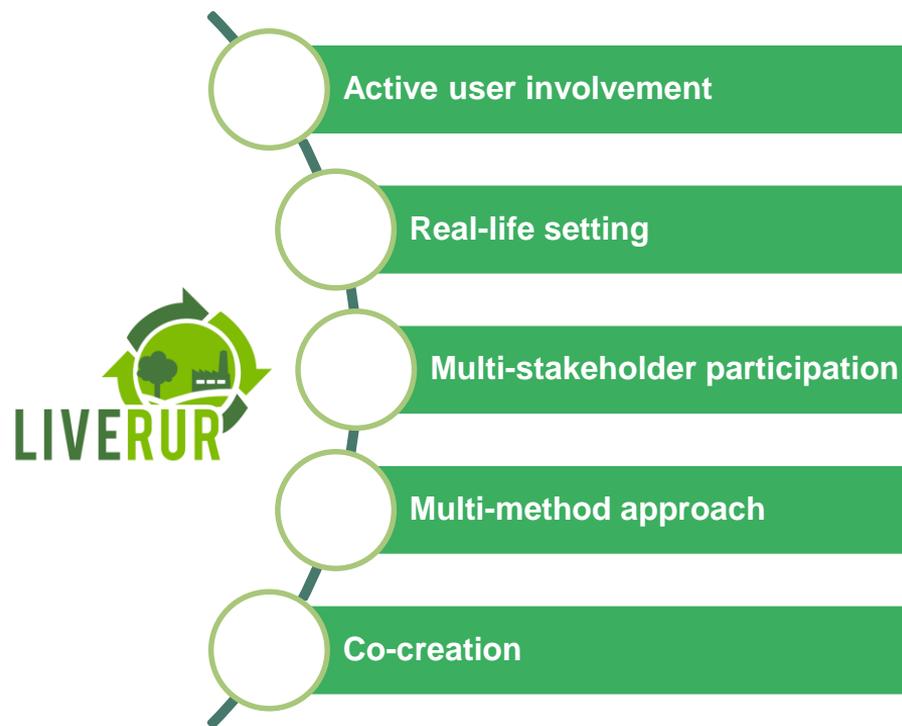
Before setting up a Circular Rural Living Lab, it is of critical importance to clearly define its purpose. A long-term vision should be established, considering the economic and social needs of the rural community where it will be set up, as well as the local potential of a circular economy approach. It is also important to consider how to sustainably relate these values with the incentive of community-driven open innovation and of user-centred research. At the same time, bridges with other Living Labs and communities should be created.

2.1. Initial Work

- Take into account the broader picture (e.g. goals, processes and interlinkages, effects on society) rather than thinking in terms of a specific business idea only (e.g. achieve a certain sales revenue from a certain product).
 - Develop a long-term vision (e.g. 20 years).
 - Make benefits visible (e.g. improved convenience, availability of goods, resource efficiency).
 - See if someone else is already developing a similar project.
- + Consider the cultural peculiarities of your rural community and how it can be involved and evolve.
- + Maximize the reach of the Circular Economy principles.

Adapted: Kallai (2019)

2.2. Common Elements on Living Labs



Source: ENoLL (<https://enoll.org/about-us/what-are-living-labs/>)

2.3. Task List

Set Up

- Define the purpose of your Living Lab. Why is it being created? What is your ultimate aspiration?
- What needs/challenges/problems will the Living Lab be addressing?
- Why are you motivated to create the Living Lab?

Sustain

- Does your purpose still stand? Or are you focused on a new/different purpose?
- What structural challenges does your Living Lab need to overcome to become sustainable?
- Are the circular economy principles being applied in a sustainable manner?

Scale Up

- Does the Living Lab need to grow to fully achieve its purpose?
- Considering your current state, how much do you need to grow?
- How are the circular economy being considered in this growth?

2.4. Tool Kit



Purpose

User
Involvement

Service
Creation

Infrastructure

Governance

Innovation
Outcomes

- a. Mind Map
- b. Problem-Solution Fit
- c. SWOT Analysis
- d. Theory of Change
- e. Living Lab Worksheet
- f. Spider Web





a. Mind Map

? What is this?

This a very simple way of mapping out your ideas, based on themes or key-words. It will result in an organized diagram that will give order to your thoughts. At the centre of the diagram you will have you main idea. Branches coming out from that will carry your main thoughts and twigs from those branches will carry secondary thoughts. This is an iterative exercise in which you should use various graphical resources like symbols, colours and images.

Q Learn more at:

www.mindmapping.com



How to use it?

1. Write down your main theme (key-word) in the centre of a page.
2. Identify sub-themes that are important to your main theme and place them around it.
3. Write down secondary ideas for each sub-theme to better understand their reach.
4. Use graphic assets to make your diagram brain-friendly and easily memorable.

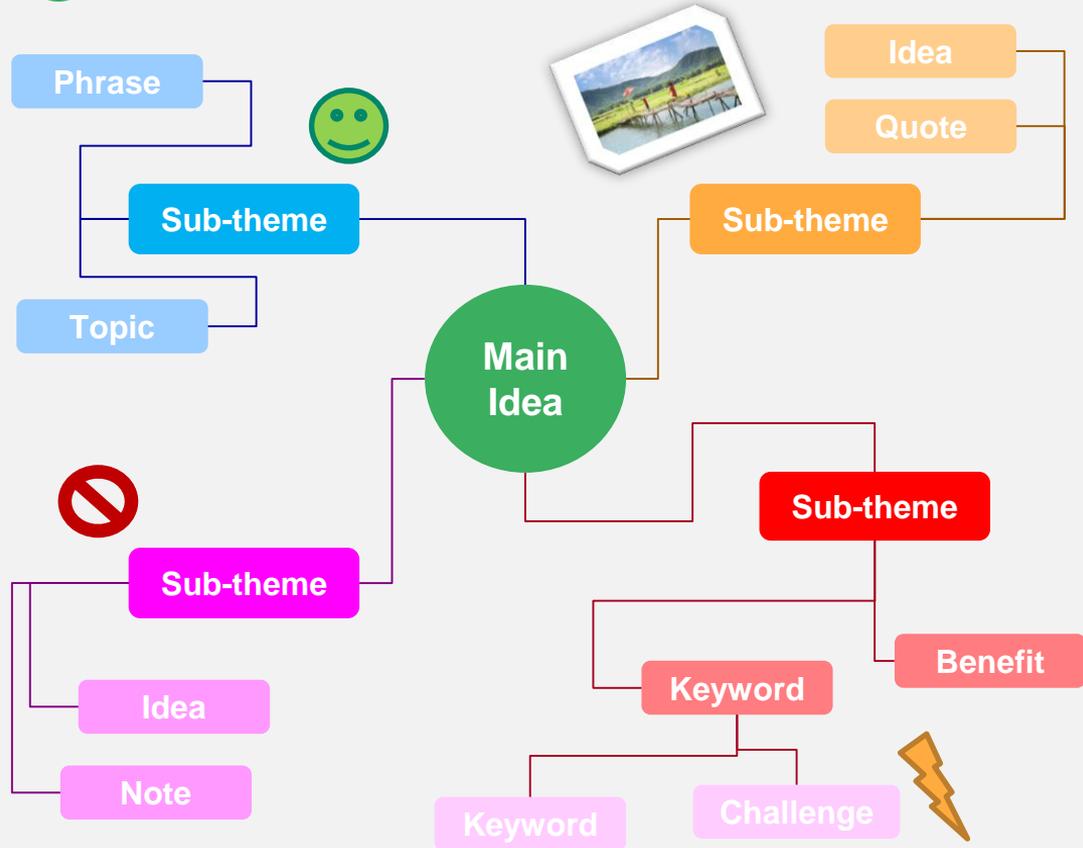


Quick hint!

There are many free mind mapping software apps!



Visualize it!





b. Problem-Solution Fit

? What is this?

The Problem-Fit Solution is a practical tool to translate a complex problem into a solution that fits the customers' state. It allows the possibility to identify behavioural patterns and recognize what can work and why. Therefore, it increases the changes of a specific solution adoption, gaining efficiency on development and testing stages. It also contributes to a better communication strategy, enabling the identification of the right message to your customers.

Q Learn more at:

www.solutioncanvas.com



How to use it?

1. Explore your customer state fit (top row). Define your targets and your competition.
2. Identify the problem-behaviour fit (middle row). What is happening with your customers?
3. Discover your Communication-Channel fit. How to drive your customers to act?
4. Create your solution, based on the data you gathered. Match the nature of your customers' problems with the solution you can provide.



Quick hint!

You can quickly adjust your solution to new challenges, opportunities or market contexts.



Visualize it!





C. SWOT Analysis

? What is this?

SWOT Analysis is used to evaluate an organization's or project's competitive position. The process starts by identifying the internal and external factors that can influence – positively and negatively – the project or organization. It can cover all the important areas for the organization's activity. When assessing the relations that exist between internal and external factors, it becomes possible to set priorities, identify competitive advantages and prepare strategic decisions.

Q Learn more at:

<https://www.businessballs.com/strategy-innovation/swot-analysis/>



How to use it?

1. Develop an internal analysis, identifying the strengths and weaknesses of your project.
2. Prepare an external analysis, identifying opportunities and threats to your project.
3. Select and evaluate the most important factors in each quadrant.
4. Identify the relations between internal and external factors.
5. Develop strategies for those relations.



Quick hint!

Matching strengths and opportunities is a good way to identify your competitive advantages.



Visualize it!

		Internal	
		<p>Strengths</p> <ul style="list-style-type: none"> • What do you do well or better than others? • Do you have unique/special resources/assets? • What do others see as your positive features? 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Where do you perform worst than others? • Where can you improve? • What do others see as your flaws?
E x t e r n a l	<p>Opportunities</p> <ul style="list-style-type: none"> • Is there a need that you can solve? • Is the market changing? • What are the market trends that can have a positive influence on you? 	<p> Aggressive Strategies</p> <p>How can you use your strengths to take advantage of emerging opportunities?</p>	<p> Turnaround Strategies</p> <p>How can you overcome your weaknesses to take advantage of emerging opportunities?</p>
	<p>Threats</p> <ul style="list-style-type: none"> • What challenges do you have to overcome? • Are the market changes negatively affecting you? • What can cause harm to your project? 	<p> Diversification Strategies</p> <p>How can you use your strengths to avoid or minimize threats?</p>	<p> Defensive Strategies</p> <p>How can you overcome or limit your weaknesses to avoid threats?</p>



d. Theory of Change

? What is this?

Using the Theory of Change tool is like designing a roadmap, with a very strong focus on the long-term goals. As it is very action-oriented, objective evidence and measurable effects and outcomes are really important to identify. It allows the assessment of the key assumptions that support each decision and stage of the process, as well as the risks that might be involved. Potential connections and synergies between different projects and partners may also be identified.

🔍 Learn more at:

<https://www.nesta.org.uk/toolkit/theory-change/>



e. Living Lab Worksheet



What is this?

It is an adaptation of the start-up accelerator worksheet, prepared by Nesta, to the Living Labs' context. It has a set of questions to help promoters think about the Living Lab's functions, activities and management, according to its specific context. Answering to these questions will result in a basic guide on how the Living Lab will work. It is built with initial ideas, which should be discussed with other stakeholders. Their feedback and inputs should be used to iterate and improve the first plan.



Learn more at:

www.nesta.org.uk/toolkit/startup-accelerator-programmes-a-practice-guide/



How to use it?

1. In a one line phrase, briefly and broadly state what is your purpose.
2. Outline your strategy to achieve that purpose.
3. List the key-resources you will be using.
4. Explain how will you be bring in projects for the Living Lab.
5. Describe the supporting services you wish to provide.
6. Reflect on the feasibility of your ideas.



Quick hint!

The worksheet is based on critical questions. You should think thoroughly about them.



Visualize it!

Image	Name of the Living Lab		
STRATEGY			
Mission What is the mission of your Living Lab?	Identify needs What are the unmet needs that your accelerator will fulfil?	Define the aims and objectives What are your objectives and the impact you intend to achieve?	Select specialism Will your Living Lab have a specific focus?
RESOURCES		SELECTION	DELIVERY
Funding Thinking about your key resources, what funding will you need? And who might your potential partners be?	Recruiting talent How will you attract users, projects and stakeholders?	Support What support and training will you provide? For how long? What facilities will you provide?	
Networks What relevant customer or investor networks could you tap into?	Filtering What will your selection criteria be? And how will you structure the selection process?	Post-programme support What post-programme support will you provide?	
		Circularity and open innovation How will you promote circularity and open-innovation?	
REFLECTION			
Assessment How feasible is your Living Lab? Why is this a strong model?		Challenges What challenges do you foresee when putting this plan into practice and might you overcome them?	

3 User Involvement

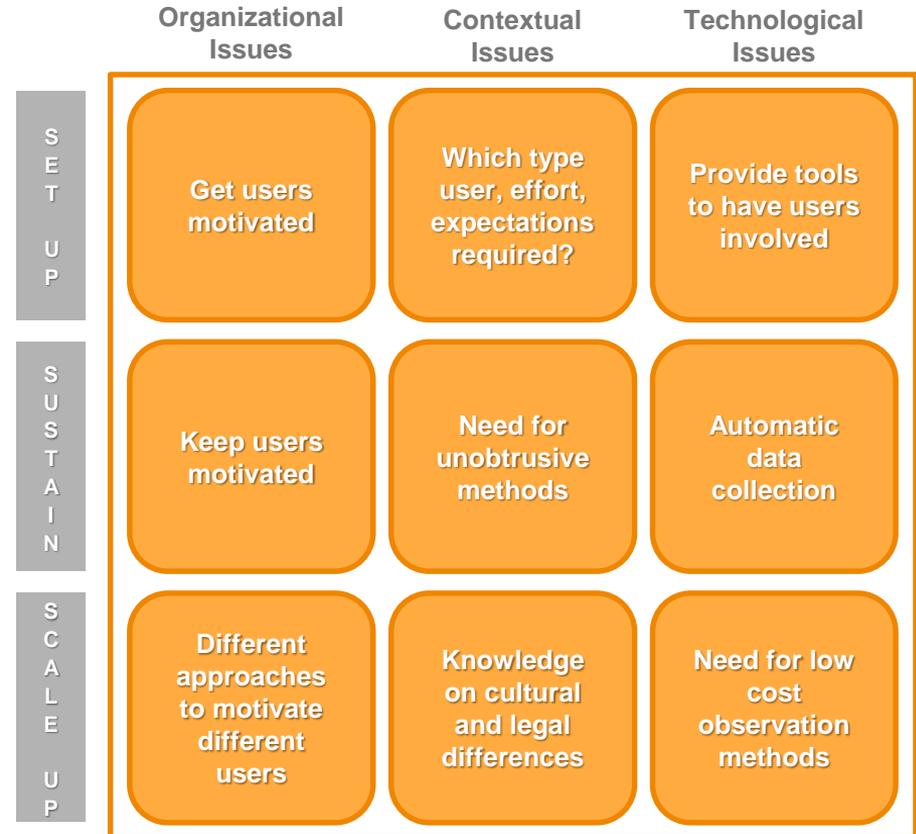
This is the most evident feature of the open innovation concept. User involvement refers to the ability to identify potential users of a certain product, as well as other relevant stakeholders, and to bring them to participate in the Living Lab and in the design process. Focusing on user-centred solutions, it is vital to involve the right users, as it is critical to motivate them and have the right tools for the job. The goal is to gather as much data as possible, on various stages, without disturbing the users, respecting their privacy and keeping them engaged.

3.1. Most relevant aspects to consider

- Motivation of users
- User incentives
- Identifying interests of participants
- Understanding users' behaviour and roles
- Selection of users (amount, type, diversity, context, etc.)
- Managing the community
- Exchanging contextual information between different cultures
- How to make sure that the users remain users
- Ethical issues on trust
- Informed consent and privacy

Source: Mulder et al. (2008)

3.2. Remember the Cube



3.3. Task List

Set Up

- Identify the target users to involve.
- Identify how you can reach your target(s).
- Describe what you want from your target(s) (i.e. how will they help you?) and what you need to/can give them?
- Devise a system to engage them and motivate their participation.
- Reach out to your target(s).

Sustain

- Evaluate the stakeholders involvement and identify who is creating value (and who is not) for your Living Lab.
- Establish direct contact with your stakeholders to ask their insights about the project and how they feel about their role (and expectations).
- Identify ways to keep users motivated / create reward-based procedures/tasks.
- Establish automatic data collection regarding your stakeholders and projects.
- Seek new stakeholders and motivate your current stakeholders to bring others.

Scale Up

- Implement new/different approaches to motivate new/different users.
- Build knowledge on your stakeholders'/users' cultural and legal differences.
- Keep faithful to your original principles, be transparent and use an accessible language.
- Engage your stakeholders in different initiatives and in different roles.
- Optimize your user involvement processes and your data gathering procedures.

3.4. Tool Kit



Purpose

User Involvement

Service Creation

Infrastructure

Governance

Innovation Outcomes

- a. Stakeholder Database
- b. Stakeholder Matrix
- c. Target Group
- d. People Shadowing
- e. Interview
- f. Questionnaire
- g. People & Connections Map
- h. Personas
- i. Brainstorming
- j. Workshops





a. Stakeholder Database

? What is this?

Creating a Stakeholder Database is a very useful way of keeping a track record of potential users, partners and other stakeholders. The database can be adjusted to the specific nature of your Living Lab or of your projects. The goal is to have as much information as possible regarding the stakeholders, their needs and the potential benefits that they can bring to the project. This will be the basis to help you identify the best partners for each stage/activity/task of a given initiative.

Q Learn more at:

www.liverur.eu



How to use it?

1. Consider the complete value-chain of the economic sector you are working with.
2. Identify the stakeholders that can add value to the projects your are developing.
3. Fill in the sheet.
4. Clearly define the level of involvement you desire from each stakeholder.
5. Identify their needs and the potential benefits they bring to the project.



Quick hint!

For each stakeholder you identify, be sure to know what you need and what you can give.



Visualize it!

	User A	User B	(...)
Name			
Contacts			
External Source (e.g. website; social media; blog, etc.)			
Category (NGO; Citizen; Government; Business; Media; Association/Cooperative; Research Group/Centre; Expert/Consultant)			
Location			
Geographical Influence (Local; Regional; National; International; Global)			
Life Cycle Stage (Introduction; Growth; Maturity; Decline)			
Inputs Provided (Products/Services? Data? Know-how? Technology?)			
Main Beneficiaries (Who can acquire/benefit from it?)			
Main Suppliers (Where does it gets its inputs?)			
Position on the Value Chain (Farmer; Producer Group; Processor; Wholesaler; Exporter; Local Trader; Input Supplier; Service Provider; Research/Innovation Centre; Expert; Consumer)			
Level of Innovation (None; Very Low; Low; Occasional; High; Very High)			
Type of Innovation (Incremental; Disruptive; Architectural; Radical)			
Innovation Practice (Product; Process; Organisational; Marketing; Social; Other)			
Desired Level of Involvement (Involve; Collaborate, Consult; Inform)			
Main Needs			
Potential Benefits for the Project			
Circular Economy Potential			



b. Stakeholder Matrix

? What is this?

The Stakeholder Matrix allows you to analyse your (potential) stakeholders according to their influence power and their interest in your project. The output of this tool will help you prioritise the stakeholders in order of importance. This will be very useful for your engagement strategies and communication efforts. The axis on the matrix may be adapted, according to your goals and needs, as there are many versions of the stakeholder matrix.

Q Learn more at:

www.stakeholdermap.com



How to use it?

1. Make a list of all the stakeholders of your project.
2. You may choose to analyse them individually or sort them by groups (according to specific themes, e.g. interests, needs, etc.)
3. Analyse the influence power and the interest that each stakeholder/group has in your project.
4. Place them in the matrix, according to your analysis and find your Key Players.

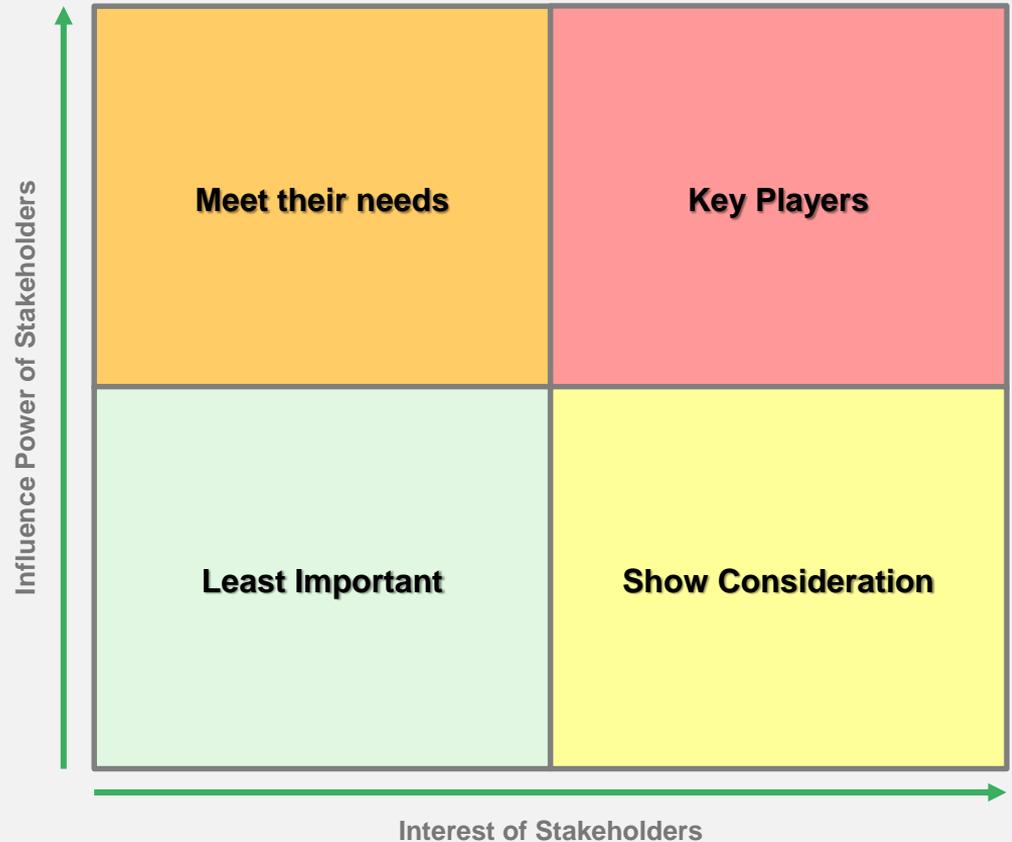


Quick hint!

There are other variations of the stakeholder matrix that can better fit your needs.



Visualize it!





c.Target Group

? What is this?

The best and most efficient way to engage with specific stakeholders or groups is to know who they are, how they behave and what they seek. This tool makes you look assertively to your target groups and create insight about them. You can quickly establish an overview and understand why they are important to you and how can you help each other. You can, then, match and balance their needs with the resources you have available and with the ways to interact with them.

Q Learn more at:

<https://diytoolkit.org/tools/target-group/>



How to use it?

1. Identify a specific group of stakeholders.
2. Ponder carefully on the needs of the target group and their underlining assumptions.
3. Identify the resources you have available to give them what they need and what can motivate them.
4. Be very concrete when answering the lower boxes, preferably using specific figures.
5. Compare with other target groups.



Quick hint!

Use one template per specific group. It can give you a precise idea for each of them.



Visualize it!

What do you call this group?

Draw them or stick a picture that represents them.

What are their needs?

What are you offering them?

What do you get in return?

How can your relationship grow?

How many are there?

How many of those will you reach?

How frequently will you interact?



d. People Shadowing

? What is this?

This technique consists in observing a certain person or group of people in their normal life. It may comprise active involvement, silent observation, taking notes or asking questions. The subjects are followed during a set period of time, so the researcher can understand their daily environment, what they do, what influences their behaviour or motivation, or detect hidden needs or daily challenges. It requires detailed preparation, but there should be room for unexpected details.

🔍 Learn more at:

<https://diytoolkit.org/tools/shadowing/>



How to use it?

1. Clearly identify your subject and ask permission to conduct the research.
2. Carefully prepare the task in accordance to your goals, selecting the best venue, period of time and methodology (e.g. passive vs. active).
3. Gather the appropriate resources for the task.
4. Follow your target and take notes
5. Analyse you main findings and compare them to the results from other researchers.



Quick hint!

Respect people's privacy! Adapt the boxes according to your goals and methods.



Visualize it!

Who: _____ When: _____ Where: _____ How: _____ Why: _____	Resources	Difficulties	Habits
Key Findings	Activities	Innovation Practices	Circularity



e. Interview

? What is this?

An interview is a qualitative research technique. Its goal is to ask some questions to specific respondents, in order to collect their insight about a particular theme. There are three types of interviews: 1) structured (follows a predefined list of questions, which are the same to all interviewees; 2) unstructured (there are no questions prepared before the interview); and 3) semi-structured (has some predetermined questions, leaving space for additional questions on the moment).

🔍 Learn more at:

<https://managementhelp.org/businessresearch/interviews.htm>



How to use it?

1. Define the theme of the interview.
2. Select the interviewees.
3. Contact and invite them, explaining your goal.
4. Decide which type of interview will you adopt.
5. Prepare your interview accordingly and identify the questions you want/need to have answered.
6. Be prepared for the place where it will happen.



Quick hint!

Unstructured interviews are much less reliable and can have a high level of bias.



Visualize it!

Introduction / Opening the Interview

Explain the purpose and the format of the interview and how long will it take.

Ask permission to record the interview and prepare your recorder. Ask if there are any doubts.

During the Interview

Have your questions prepared (for structured and semi-structured interviews).

Have attention to the:

- type of question (open, closed, follow-up)
- sequence of questions
- wording of questions

Five “musts”:

- Be as neutral as possible
- Encourage responses with positive feedback
- Ask one question at a time
- Keep interviewees on-topic
- Identify transitions between topics and questions.

Wrap-up / Closing the Interview

Ask if the interviewee has any questions. Recall how you can be contacted. Confirm how you can contact the interviewee. Say thanks!



f. Questionnaire

? What is this?

A questionnaire is a list of questions that is used to gather information about a specific issue. According to the type of question used (closed or open), quantitative or qualitative data may be obtained. This tool allows the possibility to gather a large amount of data, with low costs and in a short period of time. Questionnaires can be carried out face to face, by telephone, through online forms, or by mail/email. Statistical analysis may be used to find patterns or relations between variables.

Q Learn more at:

www.simplypsychology.org/questionnaires.html



How to use it?

1. Define what kind of questionnaire you need and design the questions accordingly.
2. Pilot-test the questionnaire and improve the questionnaire with the feedback.
3. Define your sample and the appropriate way to collect the data.
4. Apply the questionnaire and collect the data.
5. Analyse the data and draw your conclusions.



Quick hint!

There are many free to use online questionnaire forms that can help you collect data.



Visualize it!

Structure

- **Presentation:** make it look professional. It should be clean, organised and correctly configured.
- **Instructions:** prepare simple, clear and concise instructions.
- **Length:** this influences the likelihood of completion and the time used to answer. Long forms may have low answer rates, low number of complete answers and a may consumed a lot of time.
- **Terminology:** Use a simple and easy to understand language, with no technical words/phrases.
- **Sequence:** Progress from the general to the specific, from the factual to the cognitive.

Questions

- **Suitability:** the type of question used should be appropriate to the type of respondents, as well as to the aim of the research.
- **Open:** respondents may answer on their own words. It is time-consuming and requires writing skills. It is also time consuming to analyse, but can grant good data.
- **Closed:** respondents choose from pre-established options. Very good for statistical analysis.
- **Nominal:** data can be placed in categories (e.g.: yes vs. no; vegetable, fruit, cereal, meat).
- **Ordinal:** data can be ranked, using a predetermined scale (e.g. poor, mild, good).

Critical

- **Aim:** always keep a focus on the aim of the research. Eliminate all unnecessary questions.
- **Test:** pilot-test the questionnaire on a small group of people to collect feedback about the questions and the questionnaires' structure.
- **Ethics:** inform respondents the purpose of the questionnaire; ask for their informed consent; safeguard the confidentiality of their personal information and answers; and protect their data.



g. People & Connections Map

? What is this?

The People & Connections Map brings you an overview of all the organisations and individuals involved in what you do. It makes you know your environment. You will also understand in what context are they located (local, regional, national, international) and their potential range of influence. This will give you an idea of the relationship between the costs and the benefits in reaching them. It will guide you in your decisions regarding your efforts and the cautions you must have.

Q Learn more at:

<https://diytoolkit.org/tools/people-connections-map/>



How to use it?

1. Define your target audience (beneficiaries, users, customers).
2. Define the sections (“slices” of the wheel) that better fit your situation/analysis.
3. Work from the inner layers to the outer layers, identifying all possible stakeholders.
4. Review the position of each stakeholder.
5. Identify the costs and benefits of reaching them.



Quick hint!

You can change the concentric circles to identify the stakeholders' influence (e.g. high to low).



Visualize it!





h. Personas

? What is this?

A persona is a fictional portrait that is used to represent a specific group or market segment. It can contain many different features and characteristics, including the story, context, behaviours and motivations. It will reveal an archetype, that can be used to communicate, to create new solutions to existing problems or to customise a product or service. It makes you focus on people instead of abstract descriptions and it helps to identify what is important and what should be left out.

Q Learn more at:

www.businessdesigntools.com



How to use it?

1. Start by identifying the group you want to represent and think of its outline.
2. Name it.
3. Collect information from various sources.
4. Answer first the more objective and factual questions and progress to more subjective questions.
5. Review and eliminate the information that should be left out.



Quick hint!

Change the items according to each situation, to have the best archetypes for each case.



Visualize it!

Picture 	• Segment: _____	Story
	• Name: _____ • Occupation: _____	
Motivations	Skills	Environment
Activities	Pains & Frustrations	Technology Use



i. Brainstorming

? What is this?

This tool is an easy way to come up with creative solutions to solve many types of problems. In group sessions, people are encouraged to participate with unstructured, original and spontaneous ideas with the aim to solve a specific problem, even if these ideas seem out of context or foolish. The goal is to identify ideas that can evolve to be creative solutions, and also have ideas that can spark other ideas. It all must happen in an informal environment that inspires out-of-the-box thinking.

Q Learn more at:

www.interaction-design.org/literature/topics/brainstorming



How to use it?

1. Invite people to participate
2. Prepare the room (tools, resources, places...).
3. Break the ice!
4. Present the problem.
5. Ask people to write down some ideas.
6. Encourage people to share their ideas.
7. Guide the discussion, building on their ideas.
8. Wrap-up the session.

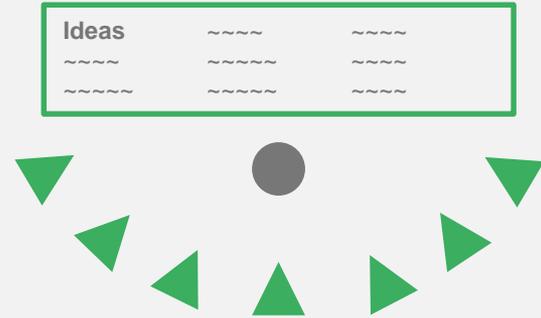


Quick hint!

There are many models for brainstorming sessions. Try different approaches.



Visualize it!



Rules

- **Bring in people with different background:** diversity is a valuable asset. Different people have different ways of thinking, which can bring different points-of-view to the discussion.
- **Set a time limit:** it is important to have a deadline and to everyone be aware of that.
- **Have a great facilitator:** the leader of the session is a key-piece, as his/her work can encourage participation, keep the discussion on-topic, find synergies and spur creativity.
- **Present the problem:** participant will have to focus on solving that specific problem.
- **Balance between quality and quantity:** encourage quantity along the session. In the end, you will have to time to sort the best ideas.
- **Have icebreakers ready:** depending on the group, you may need to break the ice at the start of the session or even break a creative block.
- **Avoid any type of judgement or criticism:** you want as many ideas as possible, even if they are weird, so encourage participation and do not create uninspiring environment.
- **Write it down:** register all the ideas where everyone can see them.



j. Workshops

? What is this?

A workshop comprises some educational/work/training sessions about a specific theme. Usually, there are lectures and presentations by experts, but participants are not mere spectators during the all event. They are invited to participate on specific moments. This may include trying new tools, participating in the activities (e.g. brainstorming), helping to solve problems or having open debates. The aim is to have a focused discussion and to provide and to gather new information, skills or tools.

Q Learn more at:

www.ica.org/sites/default/files/SPA_2010_Guidelines_Organising-training-seminars-workshops_EN.pdf



How to use it?

1. Define your objective, the theme (with a catchy title) and the audience of the workshop.
2. Structure the program (lectures, work sessions, Q&A and breaks) and identify good lecturers.
3. Book a fitting venue and prepare the logistics (registration, sponsors, catering, etc.).
4. Schedule the event and prepare the appropriate audio-visual resources and tools.
5. Publicize the workshop.



Quick hint!

Do not cram! This will get the participants tired and stressed. Prioritise and keep it light.



Visualize it!

Overview

- Theme: _____
- Title: _____
- Date: _____
- Audience: _____

People

- Organising Committee
- Assistants
- Experts
- Lecturers
- Guests
- Official representatives

Budget

- Registration fees
- Sponsors
- Costs (equipment and venue rental, catering, materials, promotion, etc.)

Program

- Lectures
- Work/training sessions
- Q&A
- Breaks
- Opening & Closing
- Lunch / Dinner
- Parallel sessions

Workshop

Promotion

- Brochures
- Posters
- Social Media
- Website/Landing page
- Press releases

Logistics

- Registration
- Catering
- Welcoming
- Transfers
- Special requirements

Venue

- Rooms
- Seats (number)
- Wi-fi / Internet
- WC
- Technical support
- Cooling / Heating
- Parking

Tools & Resources

- PC
- Projector
- Whiteboards/Flipcharts
- Screens
- Pointers
- Microphone & Sound
- Pens, paper, ...

4 Service Creation

To create value to its stakeholders, a Living Lab must be able to provide services that answer to their needs. Therefore, the service creation dimension refers to the development and to the organization of a service portfolio that should be available to the Living Lab's users, in order to help them in developing their projects. It should comprise technical services, customer services and intra-network services. A clear process for idea generation, development and experimentation must sustain the underlying structure of service creation.

4.1. Most relevant aspects to consider:

- Common language for stakeholders & long term engagement
- Efficient communication
- Strong partnerships between actors
- Organize the living lab as profit centre
- Portfolio management
- Provide R&D links
- First success stories
- Links to business value
- Visionary leadership
- Entrepreneurship (both public and private)
- Leadership and involve creation
- Local-regional-national backgrounds
- Cultural backgrounds
- Tailor made services for sustainable challenges
- Local answers for national problems
- Evolving services
- Start with 'right' services that are easy to implement
- Local service concept
- Benefit for local economy
- Regional, national, global challenges
- Motivating easy interfaces
- Strong brand
- Roaming cross border
- Share the technical roadmap with other living labs
- Adaption of innovation by the executives
- Links with company/society needs
- Affordable
- Scalable
- Open (free) architecture software.

Source: Mulder et al. (2008)

Horizontal Services that Structure the Service Matrix

Technical Services

- Communication
- Collaboration
- Demonstration
- Prototyping
- Validation
- Product deployment

Customer Services

- Innovation
- Idea generation
- Community services
- Training
- Specific service needs
- Business support
- Market customisation

Intra-network Services (within ENoLL)

- Governance
- Management
- Training

Adapted: Mulder et al. (2008)

4.2. Remember the Cube

	Organizational Issues	Contextual Issues	Technological Issues
SET UP	Organization Training	Idea generation, business support services	Communication Services
SUSTAIN	Governance	Idea generation, services specific to stakeholders	Collaboration services
SCALE UP	Management	Market customisation	Demonstration, validation, prototyping

4.3. Task List

Set Up

- Identify what services are necessary to answer your targets' needs.
- Select the services that you can deliver and describe their value propositions.
- Develop new tools or use existing tools (like this tool box) to help you deliver your services.
- Establish a process to deliver your services.
- Identify the training needs of your staff and train them.
- Create a multi-channel communication system that can raise awareness for the Living Lab, its services and its users/projects.

Sustain

- Evaluate your services' efficiency and their operational impact.
- Adopt a market-based approach to evolve, to make adjustments to your services and to answer the mutative nature of your users' needs.
- Establish partnerships with other Living Labs or innovation ecosystems to establish collaboration solutions/services.
- Devise specific services for your stakeholders and your context.
- Create shared services that can lower (testing or operational) costs for your stakeholders.

Scale Up

- Carefully manage your services to keep them focused on creating value for your users.
- Open the possibility for market customisation, increasing the flexibility and the market potential of your services.
- Improve the prototyping, validation and demonstration of the projects.
- Recycle and share your know-how, incorporating important lessons from your daily activity.
- Mature a workflow system for your Living Lab services, but keep it open for innovative approaches and continuous improvement.

4.4. Tool Kit



Purpose

User Involvement

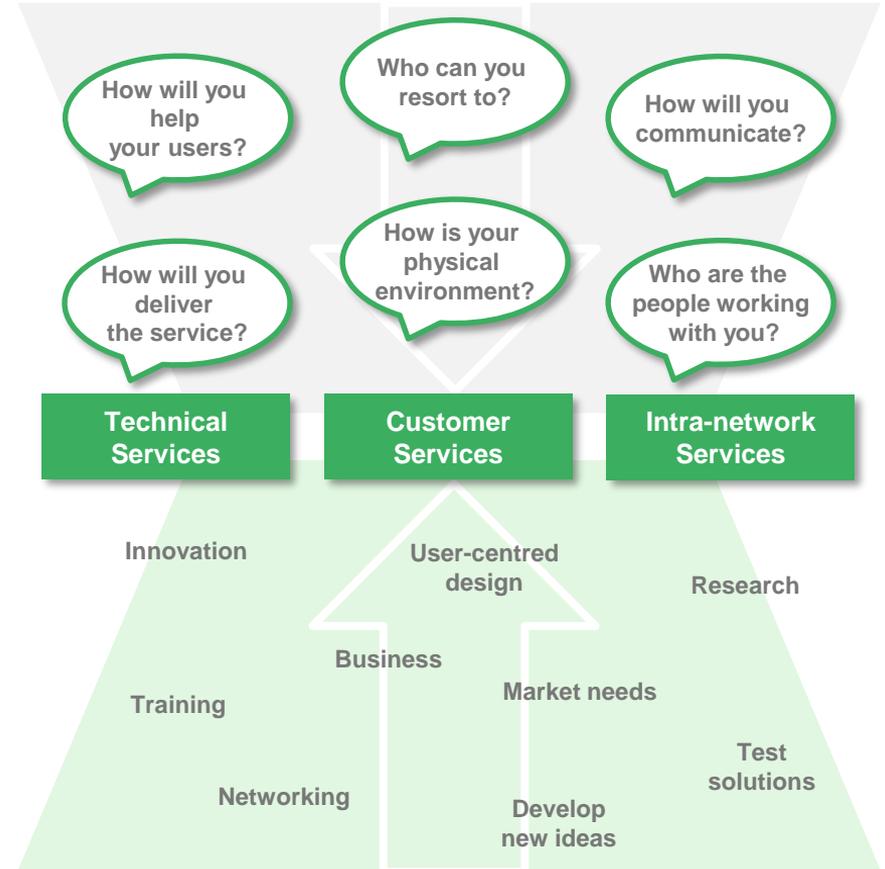
Service Creation

Infrastructure

Governance

Innovation Outcomes

- a. Business Model Canvas
- b. Value Proposition Canvas
- c. Lean Model Canvas
- d. Service Blueprint
- e. Users & Offerings Map
- f. RAIN Concept





a. **Business Model Canvas**

? What is this?

The Business Model Canvas is a one-page overview of a business model. Filling its nine building blocks will show you, in a straightforward and structured way, what and how you need to do in order to make your business thrive. It helps you to highlight the critical features in different layers of the business and to align the blocks to optimize their synergies. This tool fosters an analytical view of the business and its market fit, as well as discussion and creative thinking.

🔍 Learn more at:

www.businessmodelalchemist.com



How to use it?

1. Start by describing your customer segments and the value propositions for each of them.
2. Identify how you reach and interact with your customers and how you relate to them.
3. State how you capture value for the business.
4. Describe the infrastructure you need, including key resources, activities and partners.
5. Understand the business' cost structure.



Quick hint!

You can also map competitors with this tool and do some benchmarking.



Visualize it!

<p>Key Partners</p> <p><i>Who are our key partners?</i></p> <p><i>Who are our key suppliers?</i></p> <p><i>Which key resources are we acquiring from partners?</i></p> <p><i>Which key activities to partners perform?</i></p> <p><i>(Motivations for partnerships)</i></p>	<p>Key Activities</p> <p><i>What key activities do our value propositions (and supporting blocks) require?</i></p>	<p>Value Propositions</p> <p><i>What value do you deliver to the customer?</i></p> <p><i>Which problem are you solving?</i></p> <p><i>What bundle of products and services are you offering?</i></p> <p><i>Which needs are you satisfying?</i></p> <p><i>(characteristics)</i></p>	<p>Customer Relationships</p> <p><i>What type of relationship do customers expect?</i></p> <p><i>How to integrate that in the model?</i></p>	<p>Customer Segments</p> <p><i>For whom are you creating value?</i></p> <p><i>Who are your most important customers?</i></p>
<p>Cost Structure</p> <p><i>What are the most important costs inherent in your business model?</i></p> <p><i>Which key resources are most expensive?</i></p> <p><i>Which key activities are most expensive?</i></p>		<p>Revenue Streams</p> <p><i>For what value are our customers willing to pay?</i></p> <p><i>What and how do they pay? How would they prefer to pay?</i></p> <p><i>How much does each revenue stream contribute to overall revenues?</i></p>		



b. Value Proposition Canvas

? What is this?

The Value Proposition Canvas is a plug-in to the BMC and was developed with the Lean Startup principles. It aims for a product-market fit, considering a particular customer segment. On the one hand, the tasks that the customer needs/wants to do are analysed, identifying and measuring the related costs and expectations. On the other hand, the products that you offer that can help solve those tasks are also analysed and their benefits and problem solvers are also measured and ranked.

Q Learn more at:

www.strategyzer.com



How to use it?

1. Rank the tasks the customer needs to do.
2. Identify and rank the customer pains.
3. Identify and rank the customer expectations.
4. Rank the products & services that can help solve those tasks.
5. Analyse and rank their ability to solve the problems (pains relivers).
6. Analyse and rank their benefits (gain creators).

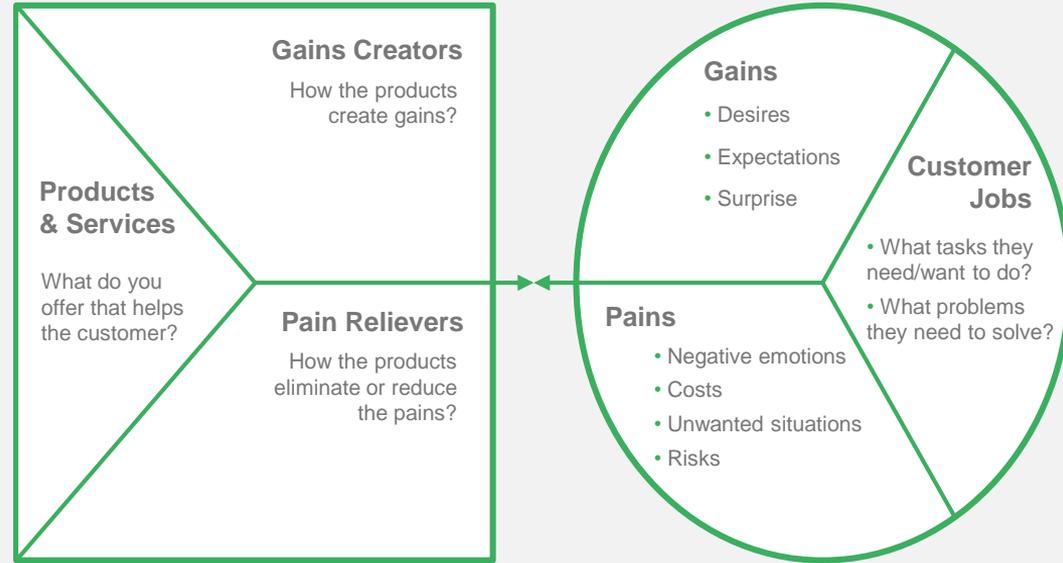


Quick hint!

To rank gains & pains, and gain creators & pain relivers, measure their intensity and frequency.



Visualize it!





C. Lean Model Canvas

? What is this?

The Lean Model Canvas is a very simple tool that was designed to quickly get ideas out of the head and into the paper. It is an adaptation of the original Business Model Canvas, but with a higher focus on simplicity and flexibility. The starting point is the identification of a set of problems that a customer segment has, working from there to a specific solution. In the end, it provides a one-page visual guide for the business/initiative and allows an iterative process to test different solutions.

Q Learn more at:

www.medium.com/@steve_mullen/an-introduction-to-lean-canvas-5c17c469d3e0



How to use it?

1. List the main problems to solve.
2. Identify who has those problems.
3. Write a sentence that makes you stand out.
4. Outline the main features of your solution, and state how will you reach your customers.
5. Identify the revenue streams and the main costs of your operations.
6. List indicators to track and measure success, and identify your comparative advantage.



Quick hint!

This tool is designed to encourage multiple quick iterations. Try as much solutions as possible.



Visualize it!

<p>Problem</p> <p><i>List your top 1-3 problems.</i></p>	<p>Solution</p> <p><i>Outline a possible solution for each problem.</i></p>	<p>Unique Value Proposition</p> <p><i>Single, clear, compelling message that states why are you different and worth paying attention.</i></p> <p>High-Level Concept</p> <p><i>List your X for Y analogy.</i></p>	<p>Unfair Advantage</p> <p><i>Something that cannot be easily bought or copied.</i></p>	<p>Customer Segments</p> <p><i>List your target customers and users.</i></p>
<p>Key Metrics</p> <p><i>List the key numbers that tell you how your business is doing.</i></p>			<p>Channels</p> <p><i>List your path to customers (inbound or outbound).</i></p>	
<p>Cost Structure</p> <p><i>List your fixed and variable costs.</i></p>		<p>Revenue Streams</p> <p><i>List your sources of revenue.</i></p>		
<p>Product</p>		<p>Market</p>		



d. Service Blueprint

? What is this?

A Service Blueprint helps to establish an overview of the organisation's operations. It highlights how a service impacts the users, the staff and other people. It also shows the interaction between the user, the staff and the organisation's resources. The Blueprint helps to understand the service structure and the underlying journey, through the identification of the key resources and processes that are required backstage and the links with what happens at the frontstage.

🔍 Learn more at:

www.lucykimbell.com/stuff/Fieldstudio_SocialDesignMethodsMenu.pdf



How to use it?

1. Define the scope of the analysis (a specific service or the organisation's activity).
2. Fill in the boxes with the baseline of the frontstage activities.
3. Fill in the boxes regarding the backstage activities, identifying links with the frontstage.
4. See how users, staff and resources interact.
5. Detect inefficiencies and the need to reallocate, add new resources or reconfigure activities.



Quick hint!

The blueprint should be based on primary data (talk to employees, users, stakeholders...).



Visualize it!

		Aware	Join	Initial Use	Use Again	Finish Using
F r o n t s t a g e	Things, media and devices					
	What the user does, feels, knows, thinks					
	What other people do, feel, know, think					
	What service personnel do, feel, know, think					
	Where things happen					
B a c k s t a g e	What service personnel do, feel, know, think					
	What supports the service					



e. Users & Offerings Map

? What is this?

The Users and Offerings Map (or Ways to Grow) is based on a two axes graphic. It measures the relationship between 1) what you do; and 2) who you do it for. The vertical axis represents your offerings, while the horizontal axis represents its users (both range from 'existing' to 'new'). With this matrix you can understand how much work and effort will a specific solution require to create its expected benefits. It will also highlight the potential risk of that solution and allow comparisons with your portfolio.

Q Learn more at:

www.designkit.org//resources/1



How to use it?

1. Analyse your current portfolio and place your offerings in the chart.
2. Place new ideas in the chart, playing with the two axes (i.e., novelty of users and offerings).
3. According to their position on the graphic, consider the work they require, their level of risk, and the investment you will need to do.
4. Decide your course of action based on your strategy (e.g., focus, diversification, cost).

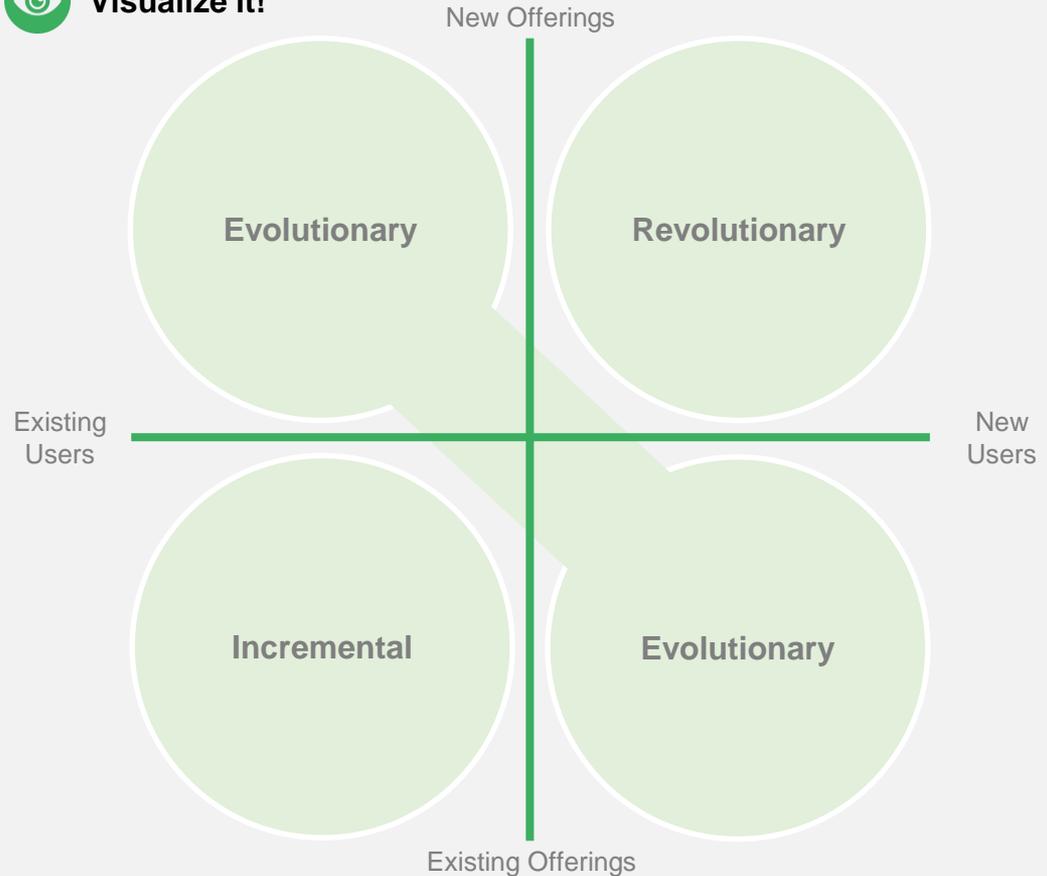


Quick hint!

This tool can serve to prioritise your investments, based on their risk and on the work they require.



Visualize it!





f. RAIN Concept

? What is this?

RAIN (Regional circular living lab business model concept) is a new business model concept, designed specifically for the rural context and taking into account regional characteristics. RAIN is comprehensive as it combines theories on Living Labs, Circular Economy and other concepts. Within five key-tasks, the utilization of the worksheets RAIN Principles and RAIN Real Life Setting is meant to help the users to integrate the respective aspects in the business model.

Q Learn more at:

<https://liverur.eu/phase-03/> (Deliverable 4.3)



How to use it?

1. Think about the vision you have for your project.
2. Using the Real Life Setting worksheet, analyse the context of the project.
3. Pick one piece of the puzzle and analyse it according to the RAIN Principles worksheet.
4. Approach the other pieces following the same methodology.
5. Summarize the main findings.

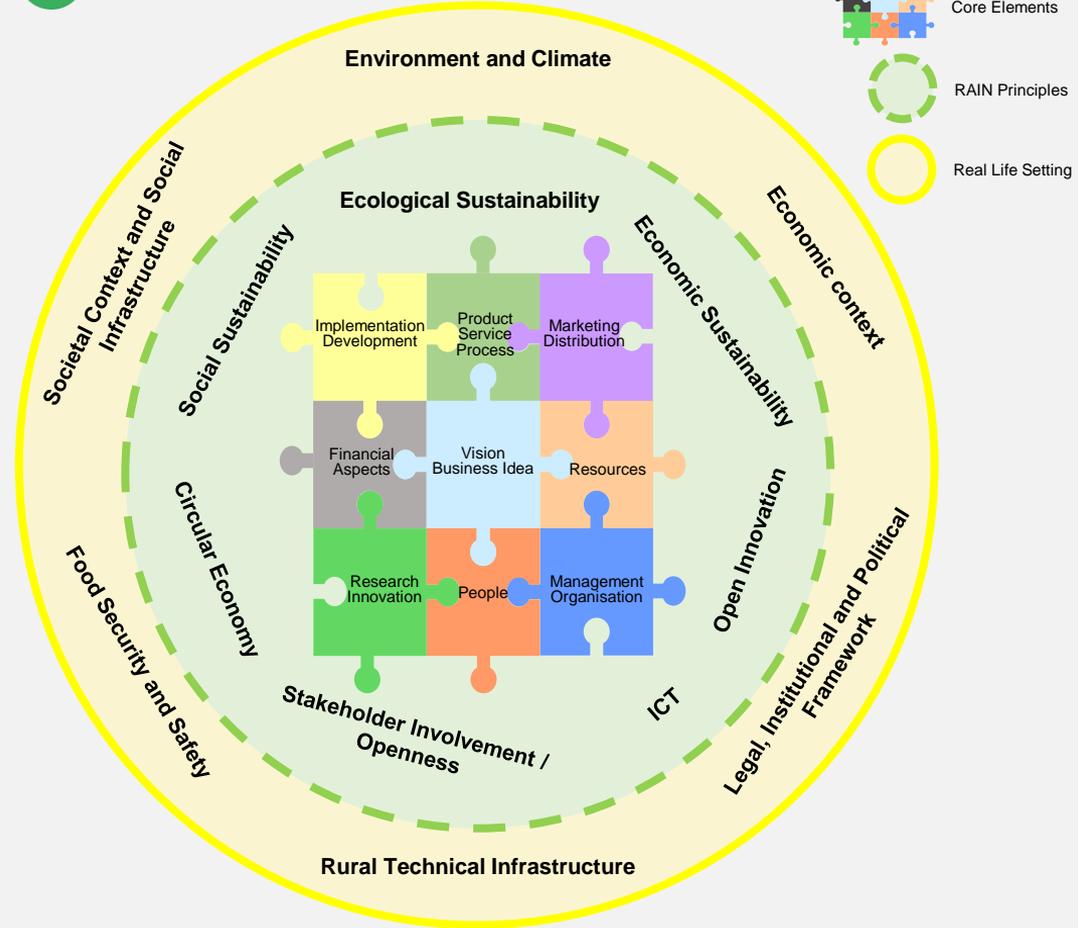


Quick hint!

The LiveRur website has a detailed guide explaining how to use this tool.



Visualize it!



5 Infrastructure

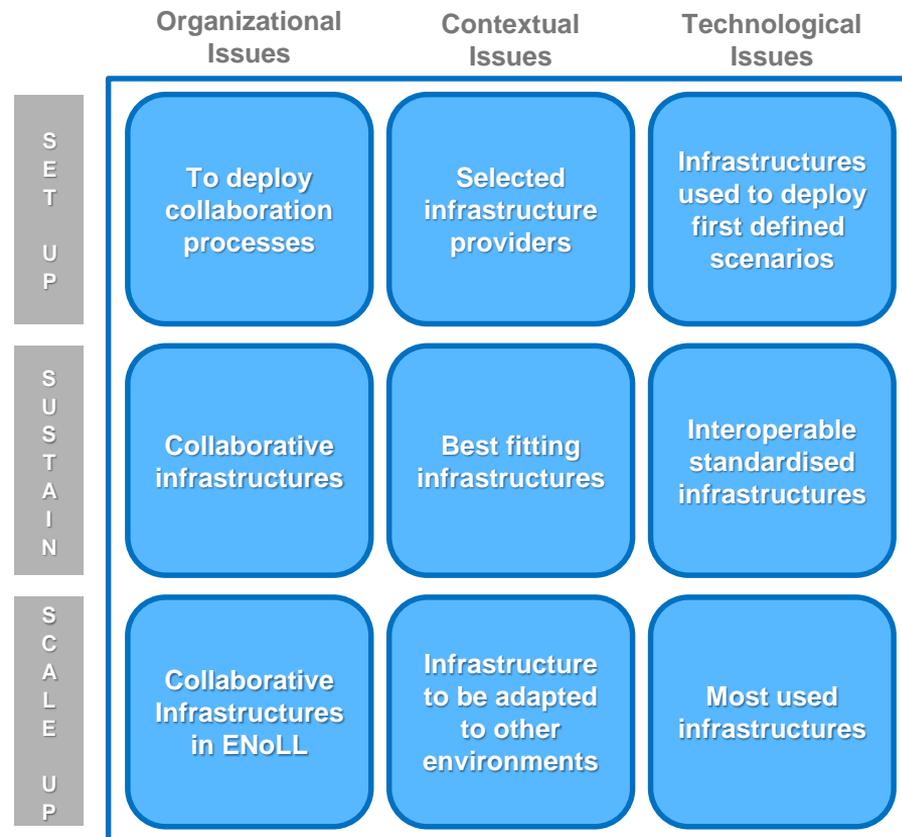
Infrastructure refers to the technologies, networks, services, qualified personnel and resources that are needed to operate the Living Lab, but which it does not control. A proper balance between digital and physical infrastructure should be attained. Some sustain that without physical infrastructure the efficacy and the future of the operation get compromised, while other focus on the digital side. On the all, it should be user friendly, widely accessible, contribute to data collection, storage and analysis, safety maximization and compliance with regulations.

5.1. Most relevant aspects to consider

- Issues of ownership
- Selection criteria for platforms
- IT architecture
- Amount of resources
- Use of private versus public infrastructure.

Source: Mulder et al. (2008)

5.2. Remember the Cube



5.3. Task List

Set Up

- Identify the critical infrastructure for your Living Lab to operate.
- Select the best option for your Living Lab, considering its physical and digital components.
- Identify local infrastructures where the Living Lab can be inserted in (especially those related to entrepreneurship and innovation).
- Identify the infrastructure you will need to develop/construct/acquire and the one you already have or can easily/freely get.
- Clarify all questions regarding safety, storage and use of data.

Sustain

- Evaluate the Living Lab infrastructure's efficiency.
- Evaluate how user-friendly is your infrastructure.
- Identify what can be changed/improved.
- Seek new infrastructures for collaborative use.
- Check if there is the need for an update, according to your usage and your stakeholders' needs.

Scale Up

- Identify the infrastructure resources you need to achieve your growth.
- Renew your old and obsolete infrastructure.
- Capitalize on the infrastructure of your partners and networks.
- Adjust your infrastructure to new demands in your environment and to the challenges of your growth (e.g. safety).
- Introduce new technology, processes and methodologies.

5.4. Tool Kit



Purpose

User
Involvement

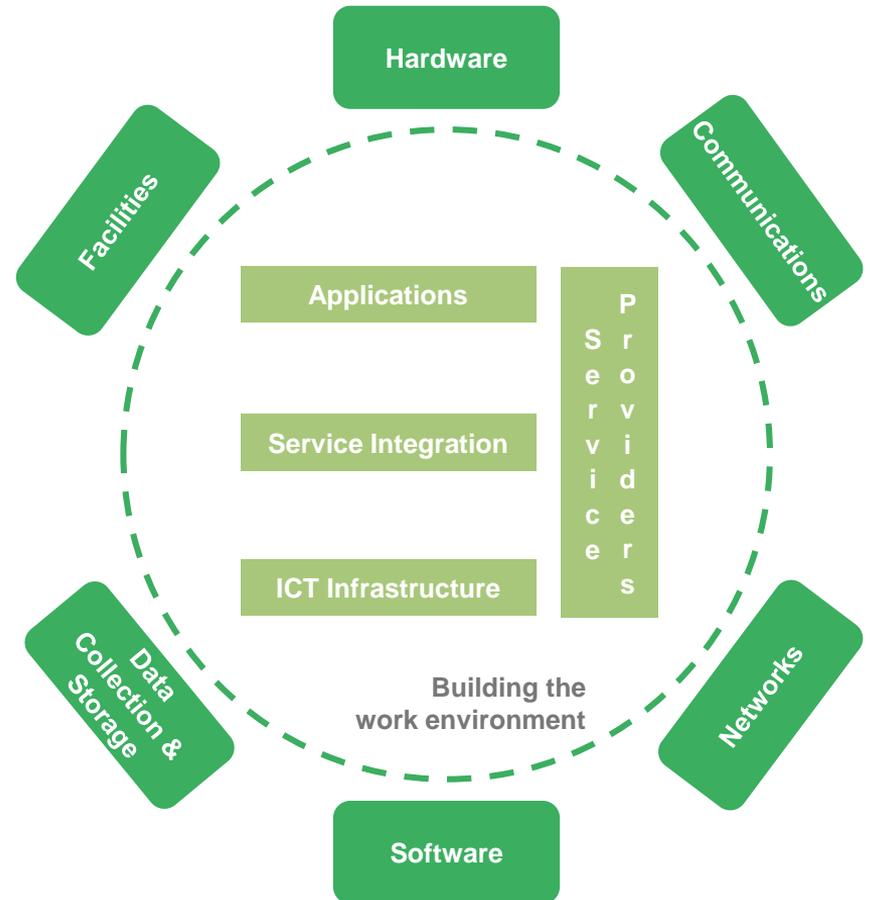
Service
Creation

Infrastructure

Governance

Innovation
Outcomes

- a. Physical Infrastructure Model
- b. Testing Spaces
- c. Online Collaboration Tools
- d. Action Catalogue
- e. Web Analytics





a. Physical Infrastructure Model

? What is this?

Due to their concept and “business model”, the success of some Living Labs is directly dependent on the physical resources they have available. When considering many economic activities in rural settings and thinking about setting a pilot project in these areas, it is important to be able to mobilize relevant tools and technologies, as well as appropriate work spaces that can be used to develop and test new ideas. This checklist makes you prioritise the needs of the Living Lab and think how to organise it.

Q Learn more at:

www.liverur.eu



How to use it?

1. Analyse your Living Lab's business model and identify its key-resources.
2. Make a list of the facilities and equipment you need for your operations.
3. Do not forget to estimate how many units you will need for each resource (e.g. 3 computers).
4. Prioritise your needs.
5. Use the final list to organise your operations and your investment schedule.



Quick hint!

Each Living Lab has specific needs. Make sure the resources you select are the ones you need.



Visualize it!

Physical Infrastructure Checklist	Must Have	Should Have	Nice to Have	How Many?
Individual working rooms				
Group working zone/rooms (cowork)				
Social zone/rooms				
Test Lab				
Workshop/Atelier				
Greenhouse				
IT demo room				
Videoconference room				
Computers				
Servers				
Smartboard				
Routers				
VR Glasses				
(special equipment – e.g., wind tunnel)				
...				



b. Testing spaces

? What is this?

One of the most important features of a Living Lab is to create the possibility for users and stakeholders to test, experiment and iterate on new ideas. Having testing platforms as part of the physical infrastructure is, therefore, critical. In a rural, open innovation and circular economy context there are many different types of work and test spaces that can be available, including cropland, greenhouses, labs, workshops/ateliers, warehouses, new technologies, computational tools, or even nurseries.

Q Learn more at:

https://u4iot.eu/pdf/U4IoT_LivingLabMethodology_Handbook.pdf



How to use it?

1. Consider the purpose of your living lab, its context, specialization and stakeholders' profiles.
2. Identify what kind of testing spaces your are most likely to need.
3. Explain how the testing space(s) will fit in your LL (location, lay-out, functionality, usage).
4. List the required resources and investment.
5. Understand the maintenance and operations requirements.

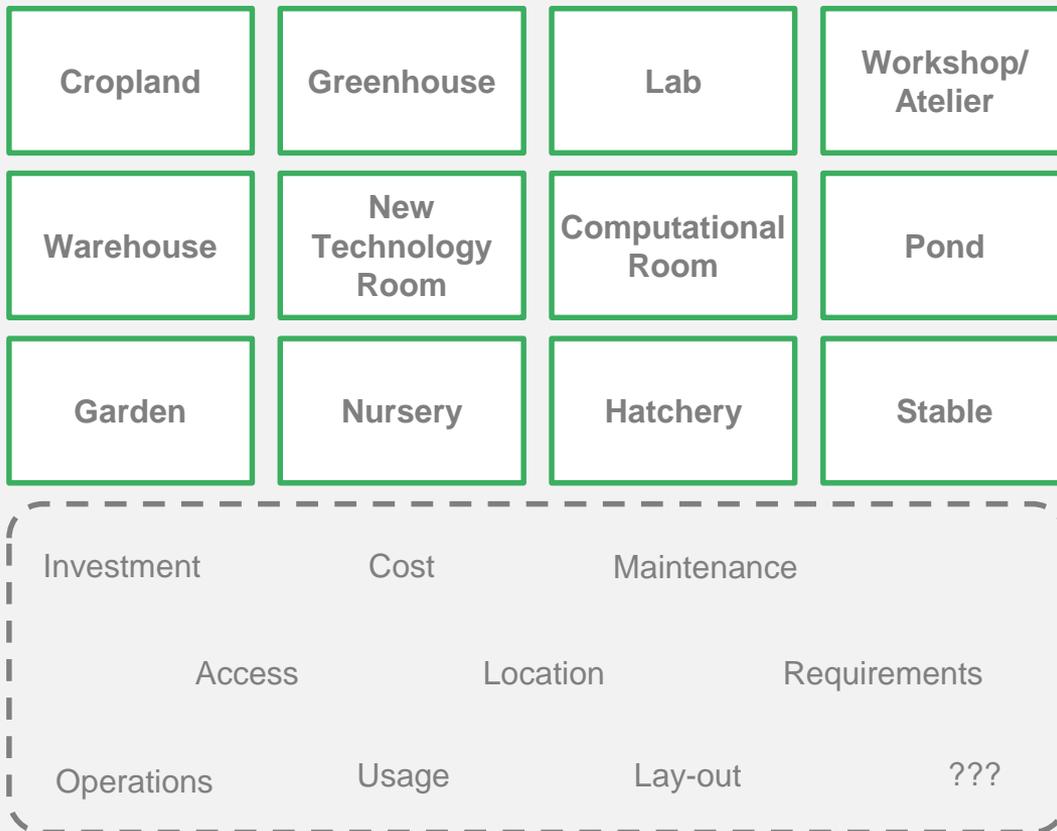


Quick hint!

Focus on resources that will be frequently used, but are hard of expensive for users to get/find.



Visualize it!





c. Online Collaboration Tools

? What is this?

Online collaboration tools are web-based applications that help people collaborate and manage common projects. There are many tools of this type, which vary in complexity and that have different functions, including: communication, including instant messaging or VOIP; coordination, such as calendars and spreadsheets; and cooperation, like file sharing and file editing. More complex project management functions or apps may also be incorporated.

🔍 Learn more at:

https://en.m.wikipedia.org/wiki/Collaboration_tool



How to use it?

1. Select the online collaboration tool that best serves your needs, your users' needs and that matches your resources.
2. Register on the tool's platform.
3. If needed, install the app in your PC/phone.
4. Organize your 'workspace' introduce your new projects or tasks.
5. Share the software with your team.



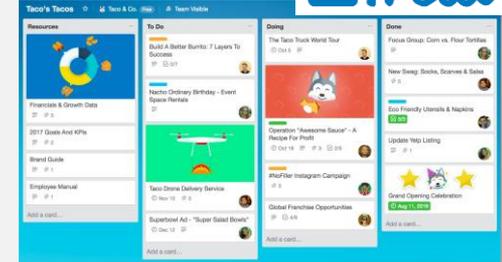
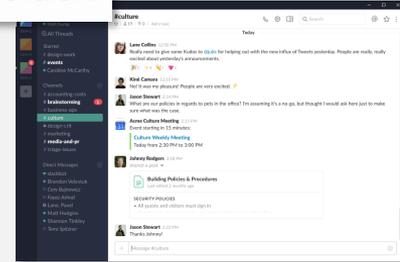
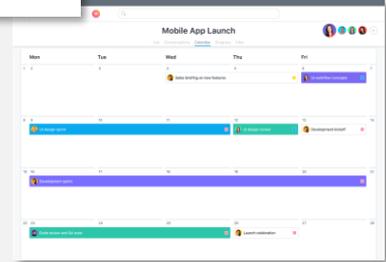
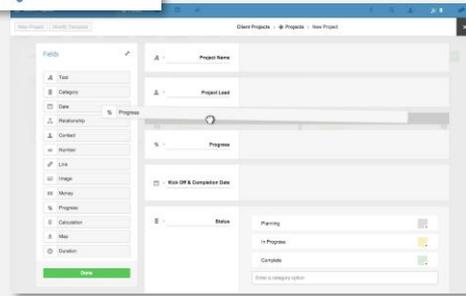
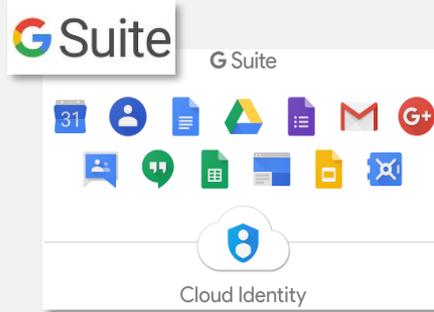
Quick hint!

Choose the tool you will be using, according to its complexity, usability, cost, and requirements.



Visualize it!

Some Examples:





d. Action Catalogue

? What is this?

This is an interactive online tool developed during the Engage 2020 project. It supports the decision making process, assisting in the identification of the most suited method of research or engagement for each project considering its specific needs. The Action Catalogue's search function is fast, interactive and gives immediate graphical feedback, making it a very powerful tool. There are 57 research methods available, which can be sorted based on 32 criteria.

🔍 Learn more at:

www.actioncatalogue.eu



How to use it?

1. Consider your goals.
2. In the Action Catalogue website, check the required inputs according to your needs.
3. Assign the importance of each criterion.
4. Consult the description of each suggested method.
5. Choose the method that best suits your goals according to the suggestions made by the app.

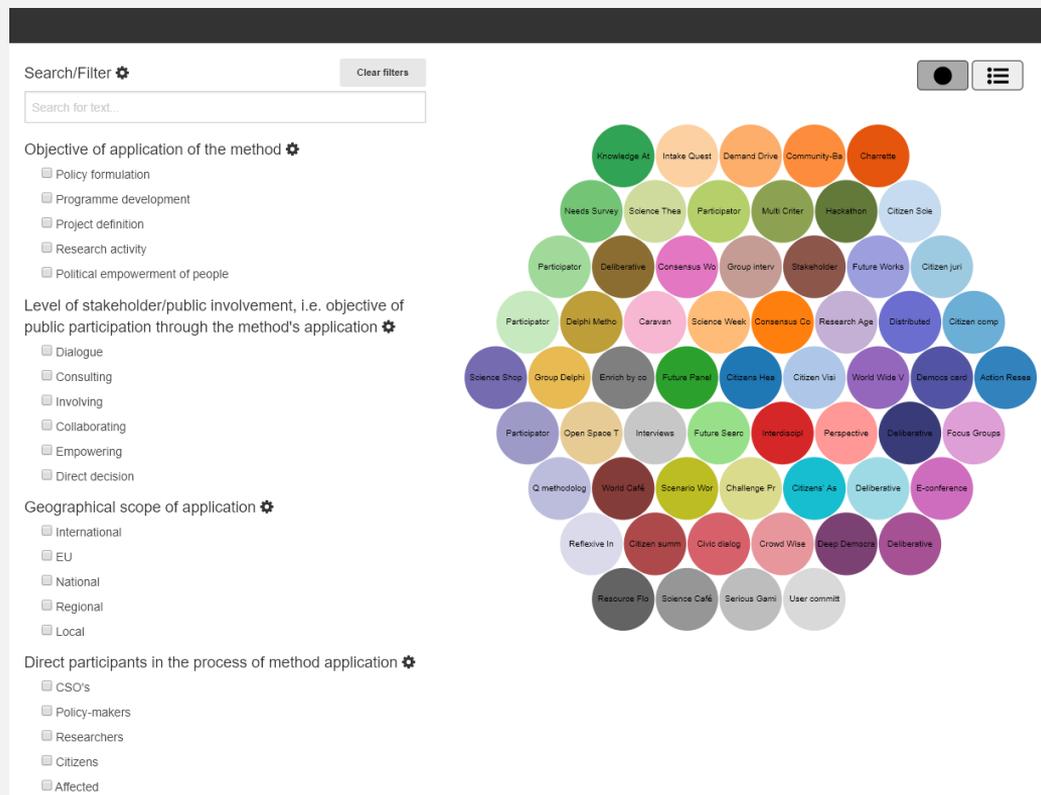


Quick hint!

As you select and adjust inputs, the catalogue will be immediately updated. Check it!



Visualize it!



The screenshot displays the Action Catalogue website interface. On the left, there are search and filter options. At the top, there is a 'Search/Filter' section with a search bar and a 'Clear filters' button. Below this, there are four filter categories, each with a gear icon for configuration:

- Objective of application of the method:**
 - Policy formulation
 - Programme development
 - Project definition
 - Research activity
 - Political empowerment of people
- Level of stakeholder/public involvement, i.e. objective of public participation through the method's application:**
 - Dialogue
 - Consulting
 - Involving
 - Collaborating
 - Empowering
 - Direct decision
- Geographical scope of application:**
 - International
 - EU
 - National
 - Regional
 - Local
- Direct participants in the process of method application:**
 - CSO's
 - Policy-makers
 - Researchers
 - Citizens
 - Affected

On the right side of the interface, there is a visualization of the methods. It consists of a large, colorful, circular arrangement of smaller circles, each representing a different method. The methods are arranged in a roughly circular pattern, with some overlapping. The colors of the circles vary, including shades of green, orange, blue, purple, and red. Some of the visible method names include: Knowledge As, Intake Quest, Demand Drive, Community-Ba, Charante, Needs Survey, Science Thea, Participator, Multi Crier, Hackathon, Citizen Sole, Partoipator, Deliberative, Consensus Wo, Group interv, Stakeholder, Future Works, Citizen juni, Partoipator, Delphi Metho, Caravan, Science Week, Consensus Co, Research Age, Distributed, Citizen comp, Science Shop, Group Delphi, Enrich by co, Future Panel, Citizens Hea, Citizen Visi, World Wide V, Democa card, Action Resea, Partoipator, Open Space T, Interviews, Future Searc, Interdiscipl, Perspective, Deliberative, Focus Groups, Q methodolog, World CafE, Scenario Wor, Challenge Pr, Citizens As, Deliberative, E-conference, Reflexive In, Citizen summ, Civic dialog, Crowd Wise, Deep Democra, Deliberative, Resource Flo, Science CafE, Serious Gami, User commit.



e. Web Analytics

? What is this?

Web analytics comprises the collection, measurement, analysis and reporting of data generated through the usage of a web-based apps (number of users, page views, time spent on each page, etc.). It is a very powerful mechanism to optimize website content, effectiveness and usability. It can, therefore, be placed at the service of marketing and communication purposes, but it can also provide relevant information regarding stakeholders' involvement and interaction.

Q Learn more at:

www.usability.gov/what-and-why/web-analytics.html



How to use it?

1. Add the tracking code on your website.
2. Explore the existing tools and define custom goals, actions and measurement indicators.
3. Monitor the evolution of your indicators.
4. Produce reports.
5. Analyse the reports.
6. Adjust and make decisions.

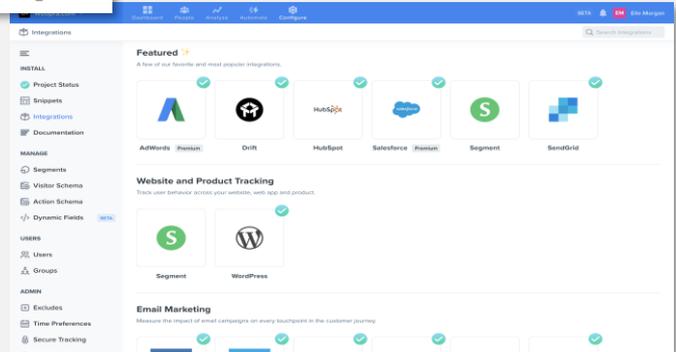
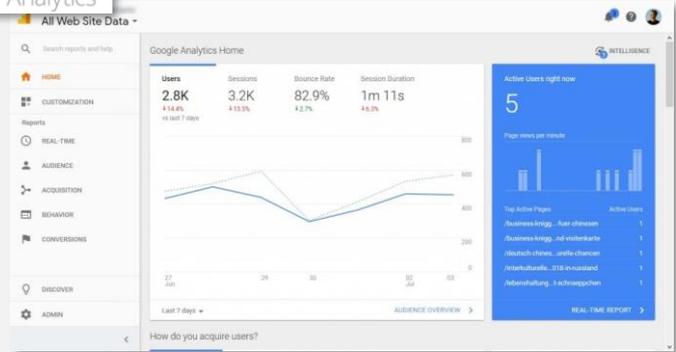


Quick hint!

The most popular web analytics tool is Google Analytics, but there are other free solutions.



Visualize it!



6 Governance

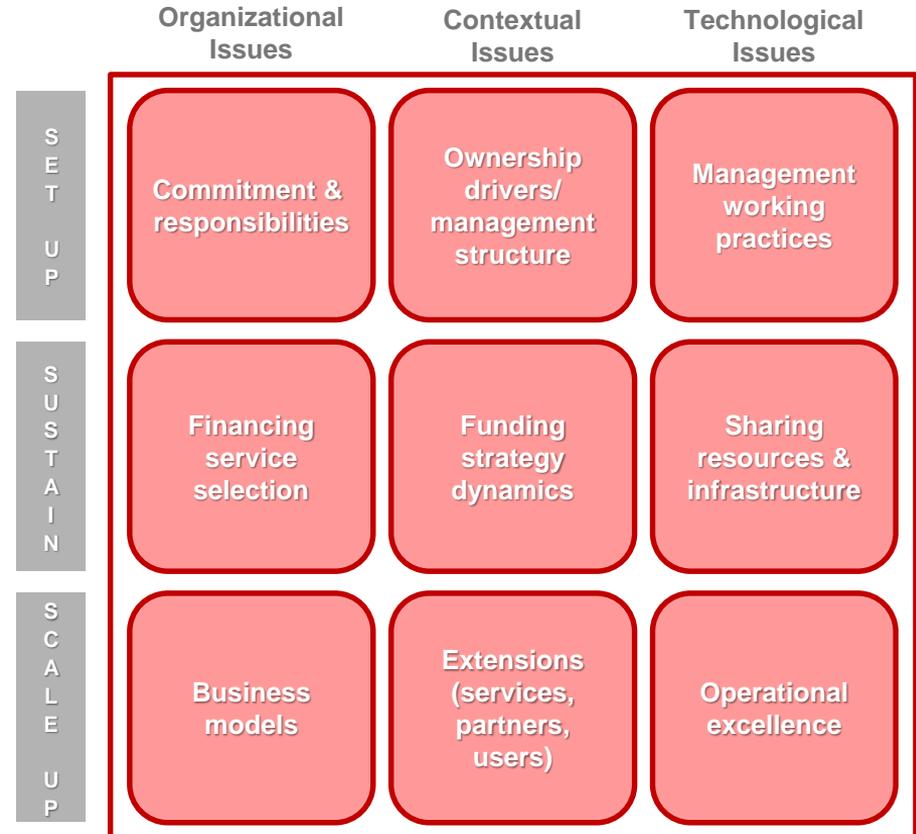
Finding the correct model to operate, organize and manage the Living Lab is critical for its sustainability. A clear understanding of what is going to be done and how it will be done is needed, defining a course of action and also the focus of the Living Lab. Will it specialize in specific sector? Will it be research-, innovation-, or business driven? These decisions will help to set priorities, establish the proper organizational structure and how members interact with each other, define how partnerships should function, outline funding, and envision growth strategies.

6.1. Most relevant aspects to consider

- Level of openness;
- Establishment of climate of co-operation;
- Interoperability;
- Design for scalability;
- IPR and ownership of the experiments/ gathered insights/ software (open source);
- Role of public funding;
- Balance between public and private involvement;
- Agreement on public private basis with sufficient concern for privacy.

Source: Mulder et al. (2008)

6.2. Remember the Cube



6.3. Task List

Set Up

- Define the organizational structure of your Living Lab, clearly describing roles and responsibilities.
- Establish internal rules, procedures and management practices.
- Build a budget and identify funding mechanisms for the Living Lab.
- Identify potential partners to develop new projects with and to apply or funding.
- Identify the skills you will need in your team and describe the desired profile of staff members.

Sustain

- Learn from your mistakes and reflect on how to best use them to improve your Living Lab.
- Evaluate how your management practices are contributing for achieving your Living Lab's goals/purpose.
- Establish a solid financing strategy and discuss it with your potential partners.
- Research about funding opportunities and devise projects that fit them and your Living Lab.
- Publish periodic transparent information about your Living Lab and its work.

Scale Up

- Adjust your organizational structure to make it more efficient in the growth stage.
- Explore new business modes to become more competitive and create more value for all stakeholders.
- Diversify your services, partners and users, reaching new markets and new needs, that compliment your current activity.
- Strive for operational excellence.
- Find permanent solutions for your funding needs.

6.4. Tool Kit



Purpose

User
Involvement

Service
Creation

Infrastructure

Governance

Innovation
Outcomes

- a. Learning Loop
- b. Causes Diagram
- c. Marketing-Mix
- d. Critical Task List
- e. Scaling Plan
- f. Spider Web





a. Learning Loop

? What is this?

As any project evolves, new knowledge is produced and grants many opportunities for learning. This tool helps you to compare what you have learned with what you intend to do. Knowing what works and what doesn't work, you can use your experience to prepare the next steps of the project. This “learn-as-you-go” tool, builds on your failure to improve, change and correct how you work, and helps you understand what you learn, so you can know what to do next and adjust your project.

Q Learn more at:

<https://diytoolkit.org/tools/learning-loop/>



How to use it?

1. Identify the project, task or action you want to assess.
2. Break the project into stages and focus on continuous improvement.
3. Pick the square you feel is more appropriate for a given project and start your way from there.
4. On each square, reflect on methods, systems and processes that your organization works (or can work) with.



Quick hint!

Collect inputs, organize the information and discuss it with your team.



Visualize it!





b. Causes Diagram

? What is this?

This tool presents a structured way to analyse a problem, separating causes from symptoms. Through brainstorming, it allows the team to think about all possible causes of the problem, rather than just the obvious ones. It also makes the team consider eventual relationships between these causes, as well as their effects on the problem. It promotes a shared understanding regarding where to best focus the team's efforts to correctly address the root of the problem(s).

Q Learn more at:

<https://diytoolkit.org/tools/causes-diagram/>



How to use it?

1. Identify the core problem you wish to address.
2. List and describe its direct symptoms.
3. Think about the underlying symptoms and contributing factors.
4. List and describe the direct causes for the symptoms you have.
5. Ponder on the underlying causes and contributing factors.

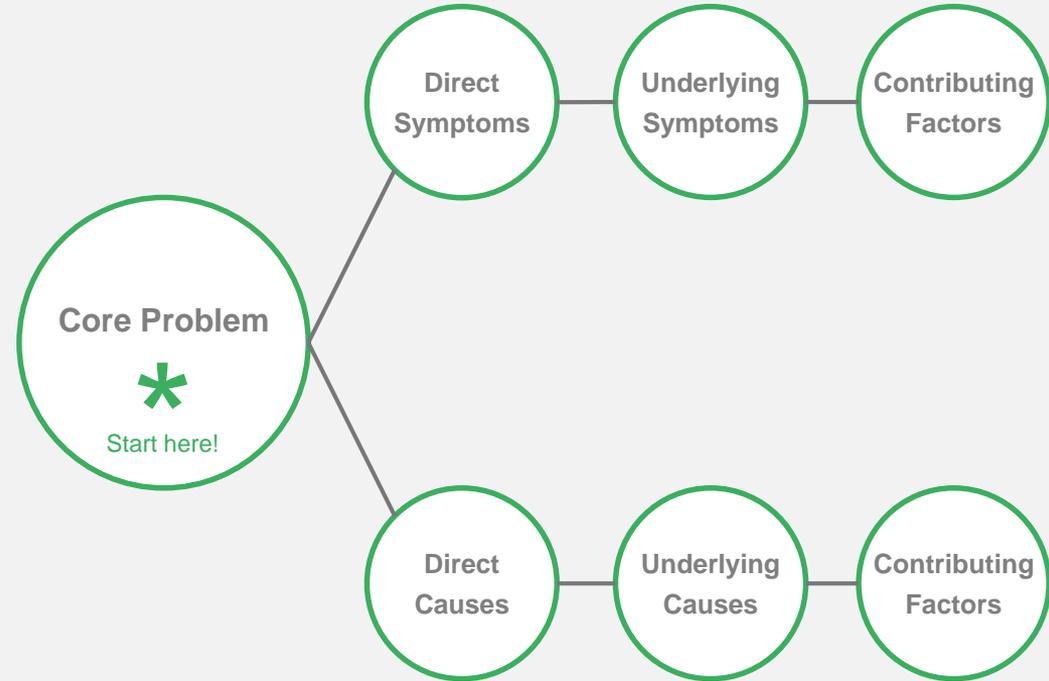


Quick hint!

When conceiving a solution for your problem, focus on the causes and not on the symptoms.



Visualize it!





C. Marketing-Mix

? What is this?

There are two important versions of the marketing-mix: 1) the traditional 4Ps, which include Product, Price, Promotion and Place; and 2) the 7Ps or service marketing-mix, that adds People, Process and Physical Evidence. The marketing-mix will help you deliver the correct product/service to your customer segment, at the right place, at the right time, in the right way and at the right price. The goal is always to meet a specific customer need or demand, and be able to deliver it.

Q Learn more at:

www.marketingmix.co.uk



How to use it?

1. Identify the basic product in general terms.
2. Focus on 'Product' and detail its outline.
3. Define a pricing strategy and a price for your product ('Price').
4. Explain how you are going to make the product available to your customers ('Place').
5. Describe the activities to communicate and advertise the product ('Promotion').
6. Address the remaining 'Ps' for a service.

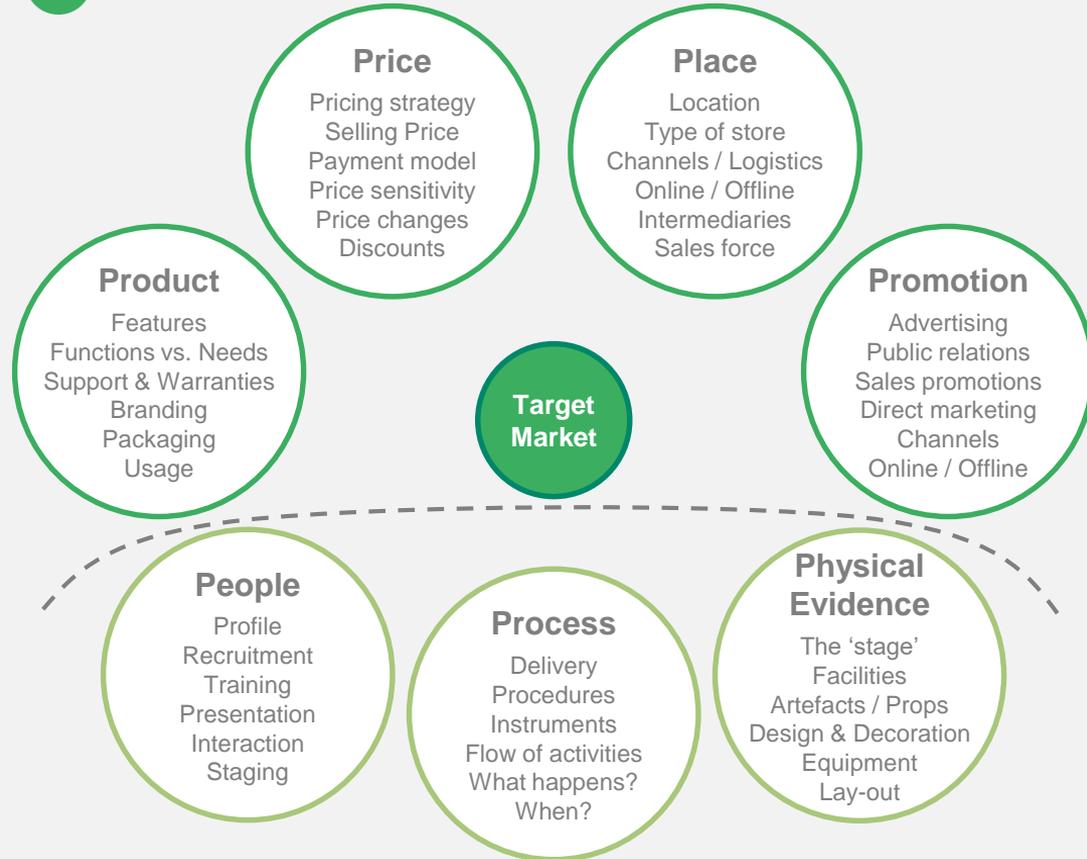


Quick hint!

Keep strong coherence between the 'Ps' (e.g., high-quality, premium price, luxury channels).



Visualize it!





d. Critical Task List

? What is this?

The critical task list helps in breaking down big projects into small steps, to strive for better management and keep track of the work's progress. The end result is a list with all the specific tasks that need to be done in order to complete the project successfully. Each task will comprise some critical project management variables, including budget, realistic timeline/deadline and identification of a 'task leader'. This is a very useful tool for the leader and for the team.

Q Learn more at:

<https://diytoolkit.org/tools/critical-tasks-list/>



How to use it?

1. List all the tasks that you need to carry out.
2. Sort out the best workflow, i.e., the specific order of the tasks.
3. Evaluate their priority level.
4. Assign each task to a specific person/team.
5. Outline a coherent budget for each task.
6. Establish a realistic deadline for each task.
7. Designate a responsible for the sign-off.



Quick hint!

Involve your team. They will bring practical inputs and it will increase their commitment.



Visualize it!

Project Name:						
Critical Task	Priority	Assigned to	Budget	Deadline	Sign-off	
Task 1.	...					
Task 2.	...					
Task 3.	...					
Task 4.	...					
Task 5.	...					
Task 6.	...					
Task 7.	...					
Task 8.	...					
Task 9.	...					
Task 10.	...					



e. Scaling Plan



What is this?

The Scaling Plan is a very useful tool to guide a project's growth after its successful implementation. It is focused on the future, but builds on the present to sustain the project's operations and to select the best possible option for scaling up. It makes you think about different types of resources and their availability, as well as leads you in assessing how prepared is the project for the next step. In the end, it should reflect a shared vision for the project's growth, where stakeholders are committed.



Learn more at:

<https://diytoolkit.org/tools/scaling-plan-tool/>



How to use it?

1. Acquire data and information about your current situation.
2. Answer the questions regarding the five key areas that should support your scaling up.
3. Justify your answers with factual data.
4. Critically and objectively assess how prepared is the project to scale up.
5. Use the outputs to adjust your governance practices and for your scale up action plan.



Quick hint!

Openly and widely discuss the scale up plan with your team and, if possible, stakeholders.



Visualize it!





f. Spider Web

? What is this?

The Spider Web allows for very quick and intuitive data comparison. Due to its two-dimension graphical form, it easily highlights the main strengths and weaknesses of the targets of analysis. It also allows for the quick comparison between multiple subjects, making it easier to understand which of them performs better (or worse) in certain domains. Therefore, Spider Web charts are very useful to simplify the understanding of complex issues and bring an overview of the situation/problem.

Q Learn more at:

<https://www.data-to-viz.com/caveat/spider.html>



How to use it?

1. Identify the main variables or domains regarding a certain issue you want to compare.
2. Rate these variables using the same scale for each of them or use other statistical data (e.g., financial data).
3. Draw the spider web using the rates you have provided.
4. Compare the data and critically analyse each variable.



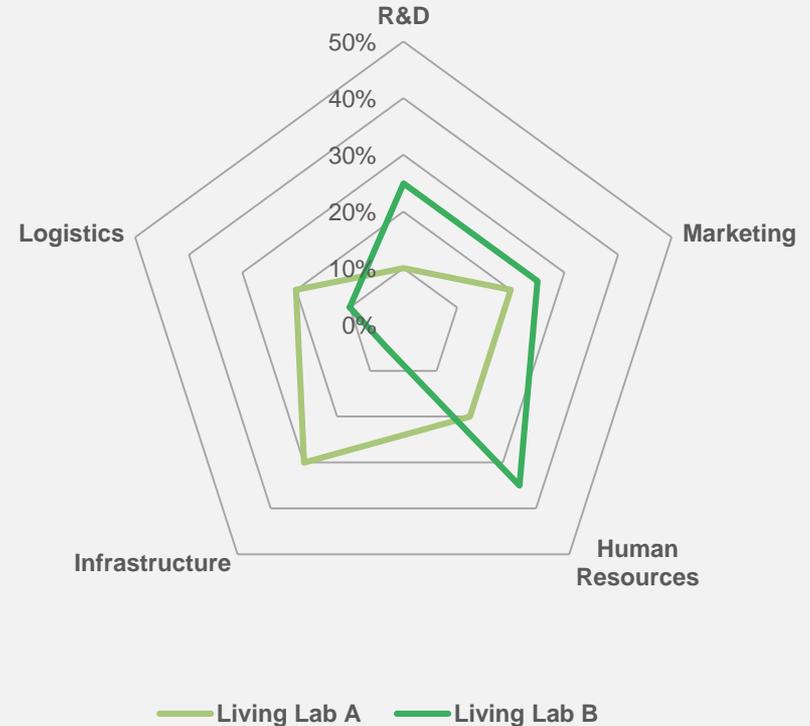
Quick hint!

Spider web charts can be created using many apps and software, like Microsoft Excel.



Visualize it!

Budget Allocation



7 Innovation Outcomes

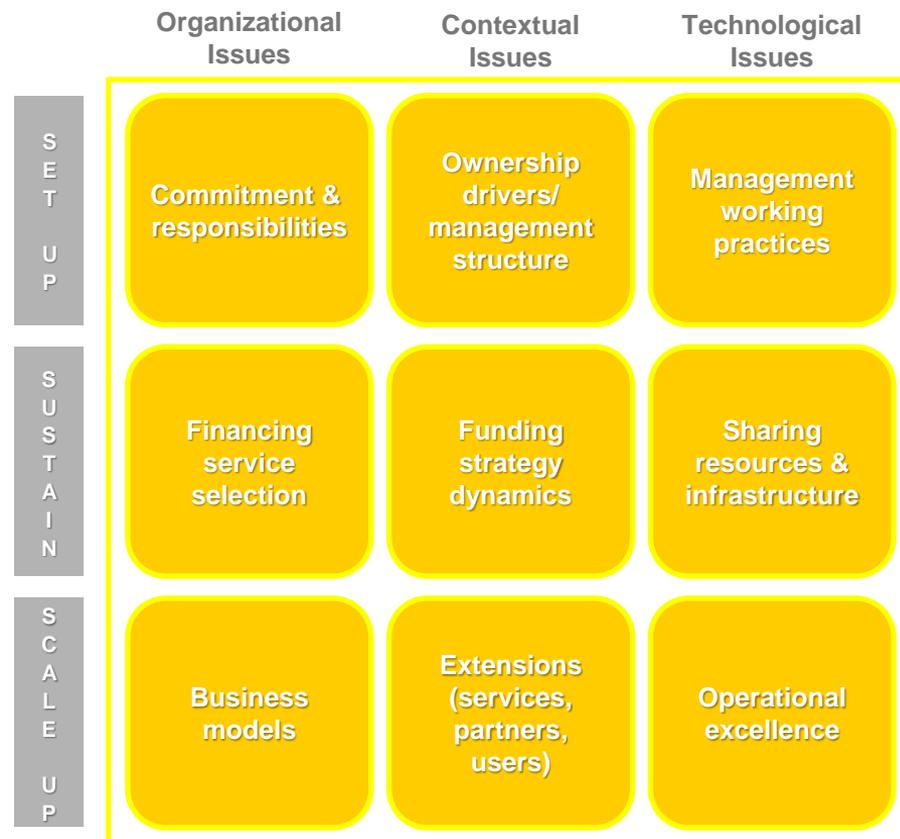
Achieving measurable and objective results is very important to validate and 'legitimize' a Living Lab's purpose and operations. Therefore, selecting the best results and working on them, protecting their IPR, as well as promoting joint work and sharing between users is critical to strive for innovation. Living Labs' results can include finished ready to launch (or launched) end-user products or services, but can also consist of prototypes (high or low fidelity), minimum viable products (MVP), patents, new knowledge or technology, or even usage models.

7.1. Most relevant aspects to consider

- Clarity of objectives;
- Shared objectives;
- Clarity of IPR agreements;
- Territorial relevance of objectives;
- Adaptability;
- Ability to continuously respond to needs;
- Organise and design that continuously will generate new products,
- Transferability to other contexts and domains;
- Platform scalability.

Source: Mulder et al. (2008)

7.2. Remember the Cube



7.3. Task List

Set Up

- Define (clear, measurable and realistic) goals to be achieved.
- Bring in good practices that stimulate innovation and an innovation-oriented work environment.
- Start to follow innovation networks, projects, ecosystems, other Living Labs, etc.
- Encourage an open minded, disruptive and problem-solving way of working/thinking.
- Identify partners and mechanisms to promote technology and knowledge transfer, protection and sharing.

Sustain

- Strive to achieve solutions to solve real problems, create value for your stakeholders and community and have clearly visible benefits.
- Quickly identify potential IPR in the projects you work in and help the promoters to understand them.
- Identify the best way to work with research centres and other research-driven organizations to optimize their interaction with other stakeholders.
- Mediate different forms of interaction between research and businesses (e.g. prototyping, testing).
- Promote periodic events to promote and sustain networks, create new partnerships and show your Living Lab's results.

Scale Up

- Capitalize on your previous work and on your brand to bring in renowned experts and stakeholders.
- Extend the context of your Living Lab and your target market, but in a way that not compromises your current ones and your ultimate purpose.
- Adopt multi-level innovation procedures and systems.
- Develop a multi-user environment, where different profiles may be mingled and may contribute to innovative results, with different inputs and activities.
- Keep a problem/need-solving approach, according to the new specificities of the market.

7.4. Tool Kit



Purpose

User Involvement

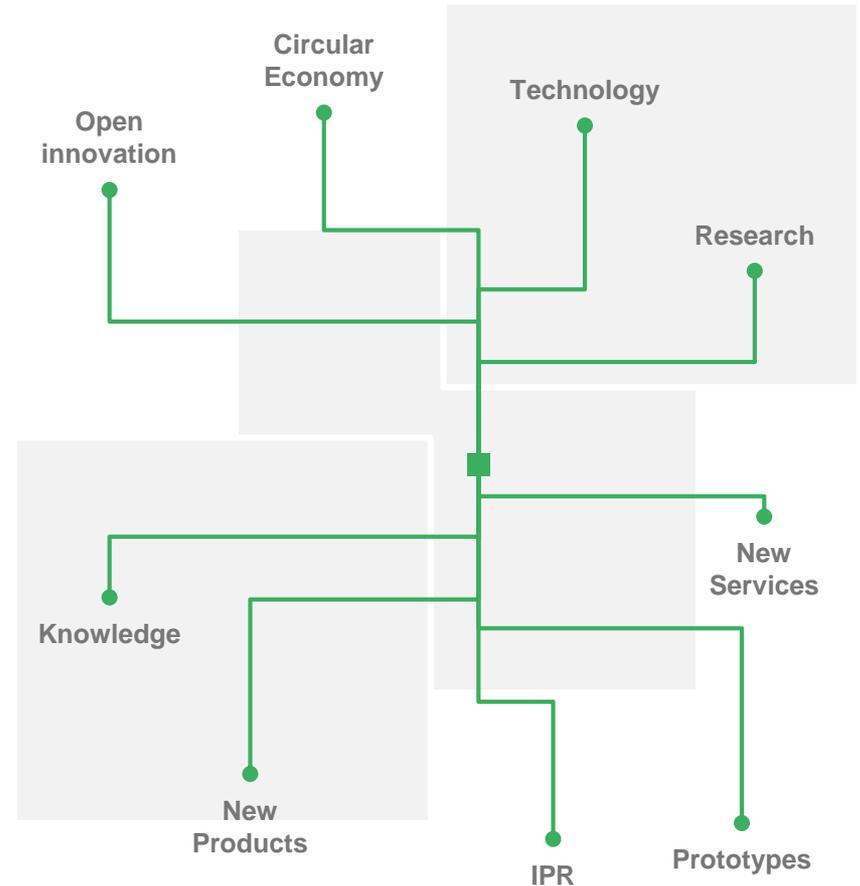
Service Creation

Infrastructure

Governance

Innovation Outcomes

- a. Design Thinking
- b. Evidence Planning
- c. Gap Analysis
- d. Life Cycle Assessment
- e. Technology Readiness Level
- f. LIVERUR Project Evaluation Tool





a. Design Thinking

? What is this?

Design Thinking is a non-linear, human centric and creative problem-solving process, that is especially suited for ill-defined or unknown problems. It focuses on the human need behind a potential business opportunity or solution. It encourages out-of-the-box thinking, aligning human desires, technological feasibility and economic viability. Through an iterative approach, it is based on five core actions that can involve rough prototypes, storytelling, or alternative solutions.

Q Learn more at:

www.interaction-design.org/literature/topics/design-thinking



How to use it?

1. Research the users' needs to gain an empathetic understanding of the problem.
2. Outline the users' needs and problems, in a human-centred approach.
3. Think about innovative solutions, challenging assumptions to create new ideas.
4. Start to create solutions, through low fidelity prototyping.
5. Test high-fidelity prototypes.

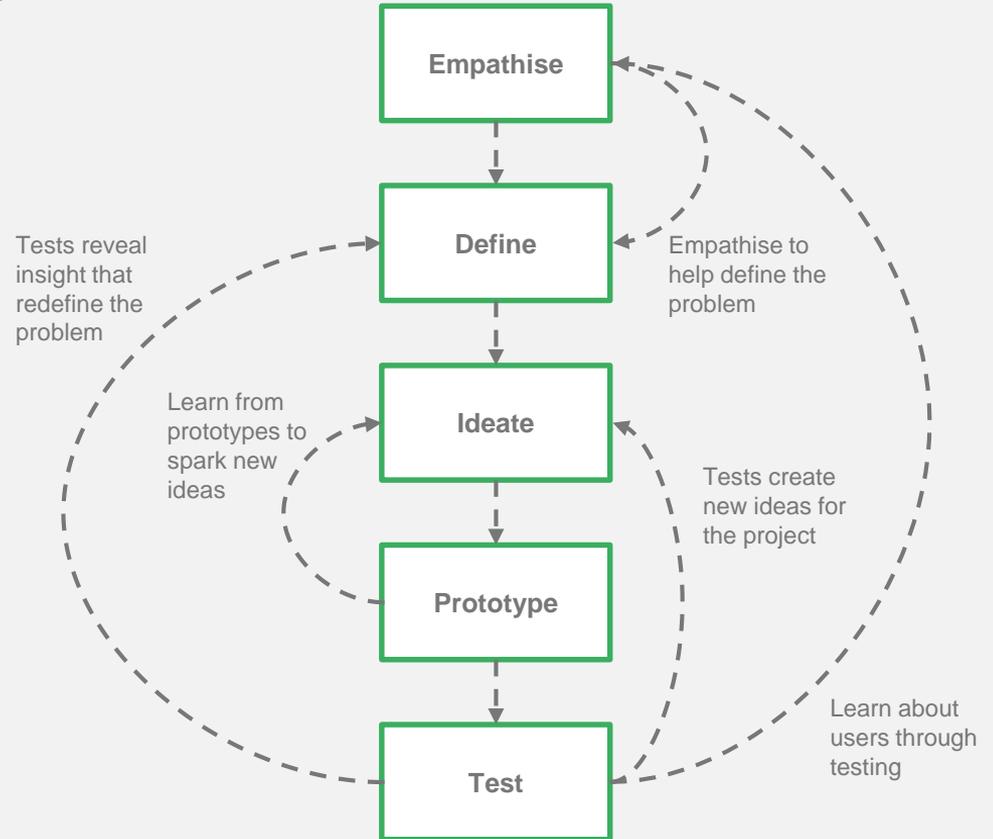


Quick hint!

Iterate constantly. This is a non-linear process, so adjust the flow as you need.



Visualize it!





b. Evidence Planning

? What is this?

This an evidence-based tool, which allows you to justify what you are trying to do, based on assumptions, proof and/or valid reasoning. It makes you reflect on what you want and how to achieve it, and, at the same time, it helps identify potential problems or easy-to-make mistakes. This tool makes you aware of the potential effects your project can have on the future, as well as on various types of stakeholders, like target beneficiaries, society, yourself or other organizations.

Q Learn more at:

<https://diytoolkit.org/tools/evidence-planning-2>



How to use it?

1. Identify the key focus of your work/project/organization.
2. Answer the questions in each of the four quadrants.
3. Find evidence/proof/reasons for your claims.
4. Look at the different key aspect from diverse points of view.
5. Identify potential problems or mistakes that could easily be neglected.

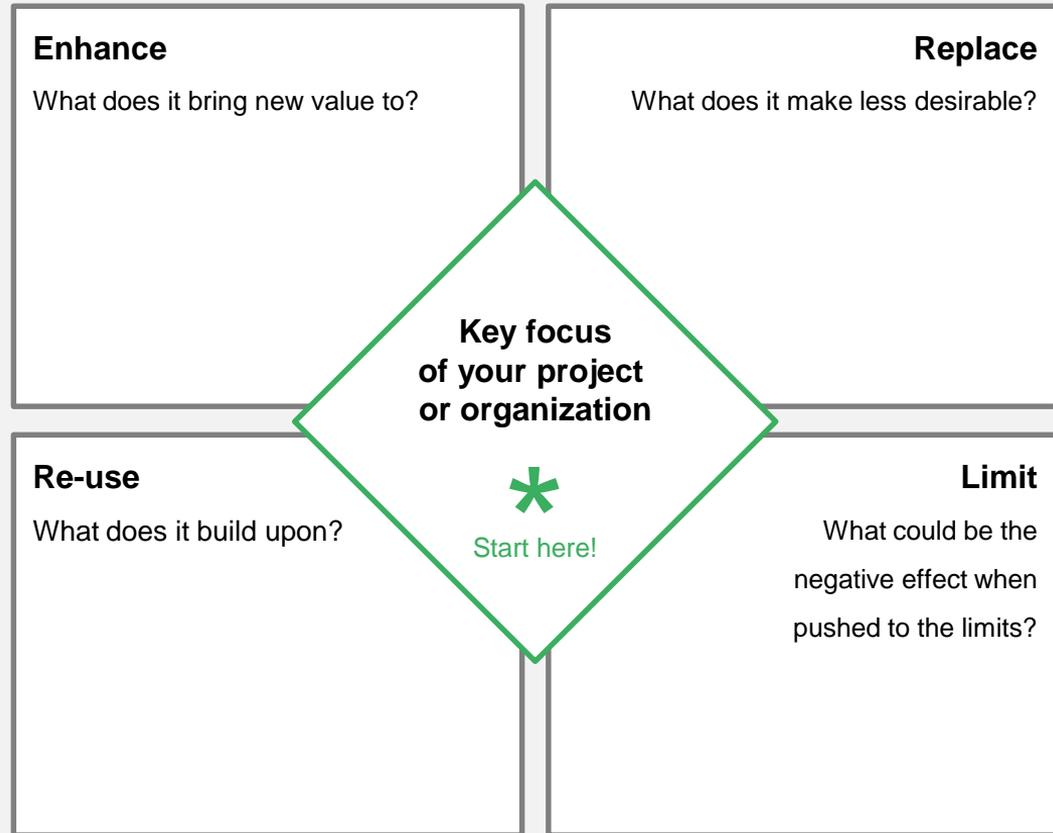


Quick hint!

Think broadly and consider multiple targets/contexts. This will help you gather evidence.



Visualize it!





C. Gap Analysis

? What is this?

Gap Analysis is a technique that comes from the business studies field. It is based on the assessment of the differences that exist between the actual performance and the desired/potential performance of an organization, product, or function. Analysing these gaps provides the starting point for more in-depth discussions with key-players and relevant stakeholders regarding the problems that exist and the potential solutions that can be jointly promoted to foster better performance/solutions.

Q Learn more at:

www.clearpointstrategy.com/gap-analysis-template/



How to use it?

1. Through joint work with your stakeholders, evaluate the current state of the products and projects that are being developed in the LL.
2. Explicitly outline what each of them is aiming for, or what need are they trying to solve.
3. Evaluate the existing gap.
4. Discuss with your stakeholders how to best address these gaps.
5. Devise a new solution for each gap.



Quick hint!

This methodology can be very useful when studying prototypes, MVP and new products.



Visualize it!

Project Name:				
Problem	Solution	Gap		
		Yes	No	Description
	→			
	→			
	→			
	→			
	→			
Expected Performance	Actual Performance	Gap		
		Yes	No	Description
	→			
	→			
	→			
	→			
	→			



d. Life Cycle Assessment

? What is this?

The end-goal of the Life Cycle Assessment is to determine the environmental impact of a product, process or service, and to make it more sustainable. It is an important decision-support tool and has been standardized by ISO 14040. It can be quite useful to foster a more circular economy, as it takes you through a ‘cradle-to-grave’ analysis, including the extraction of raw materials, processing, transportation, usage, and final disposal.

Q Learn more at:

www.ecochain.com/knowledge/life-cycle-assessment-lca-guide/



How to use it?

1. Define the goal and scope of the assessment, i.e., identify what you will be assessing and how deep will the analysis be.
2. Produce a life cycle inventory, i.e., quantify every environmental inputs and outputs.
3. Develop an impact assessment to understand how significant the impacts are.
4. Interpret the results and produce recommendations accordingly.

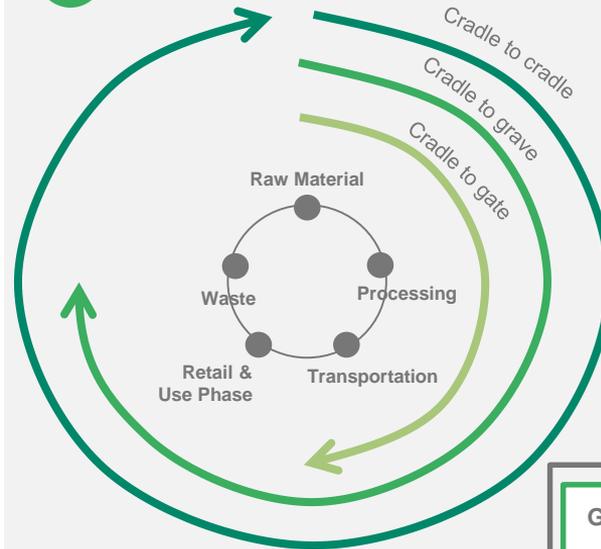


Quick hint!

Interpret result in every stage in order to aid final conclusions and recommendations.

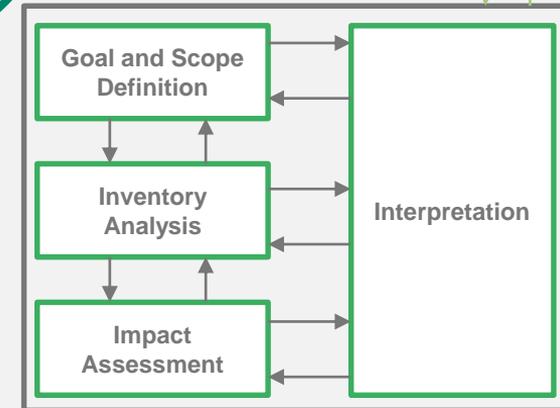


Visualize it!



Direct Implications:

- Product development and improvement;
- Strategic planning;
- Public policy making;
- Marketing;
- Others.





e. Technology Readiness Level

? What is this?

The Technology Readiness Assessment is a system used to estimate the technical maturity of a specific technology. It allows for consistent and uniform assessments across different types of technology, based on a 1 to 9 scale (9 the most mature). It requires an analysis to program concepts, technology requirements, and demonstrated technology capabilities, serving as a useful tool for project management tasks, including funding, risk management, and communication.

Q Learn more at:

https://artes.esa.int/sites/default/files/TRL_Handbook.pdf



How to use it?

Perform the following step for each level:

1. Detail the R&D that has been performed, or the technology that has been advanced.
2. Detail how well the future application of the new technology is known, and its requirements.
3. Test and explain the degree of similarity of the environment and of the performance.
4. Decide if a technology can be further developed and with what effort and risk.

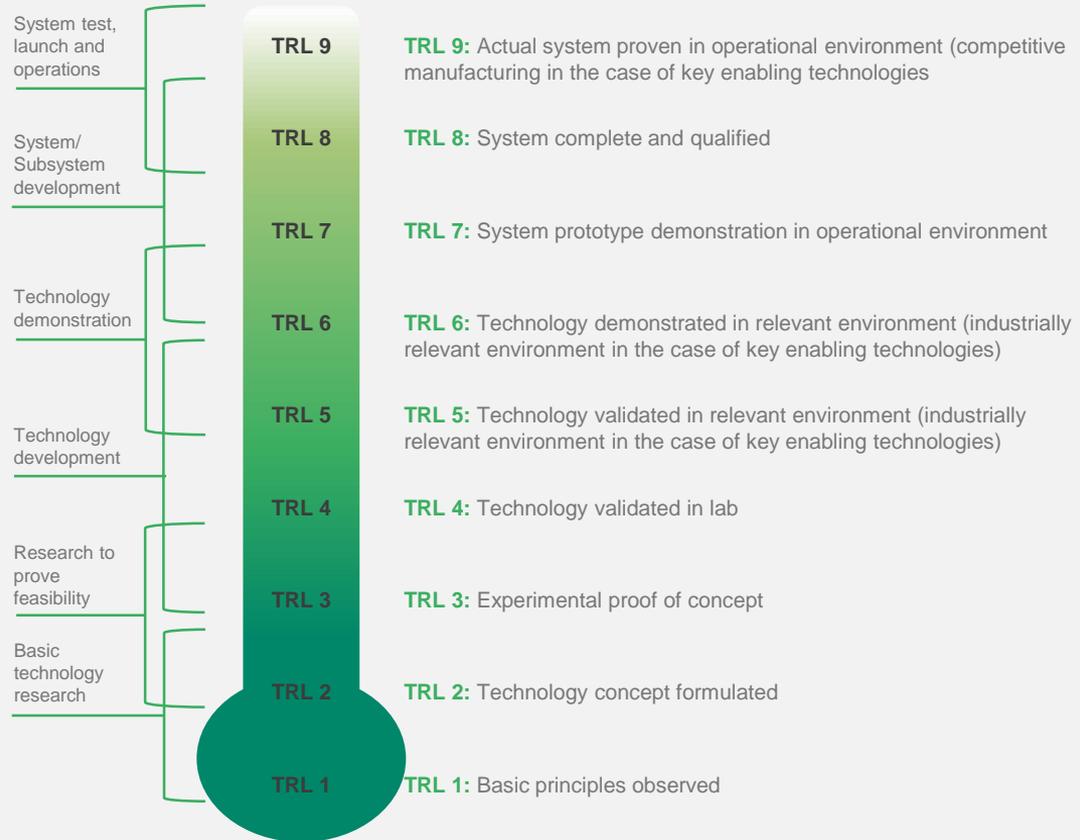


Quick hint!

A critical feature in this process is time. Technology can quickly become obsolete.



Visualize it!





e. LIVERUR Project Evaluation Tool



What is this?

A criteria system for project evaluation with the most relevant LIVERUR topics was developed on the basis of current scientific literature. This criteria system focuses on four main topics: 1. Living Lab approach; 2. Economic sustainability; 3. Social sustainability; and 4. Ecological sustainability. Three to six concrete indicators were developed for each main criteria and complement the comprehensive view on sustainable business models following the H2020 LIVERUR project ideas.



Learn more at:

<https://liverur.eu/phase-03/> (Deliverable 4.1)



How to use it?

1. Collect relevant data to rate all the variables.
2. Gather your team and discuss the data and the appropriate weighing for each variable.
3. To rate each variable, compare it to the LIVERUR approach: the higher the performance, the closer the project/business model is related to the LIVERUR approach.
4. Critically analyse each variable and identify room/opportunities for improvement.

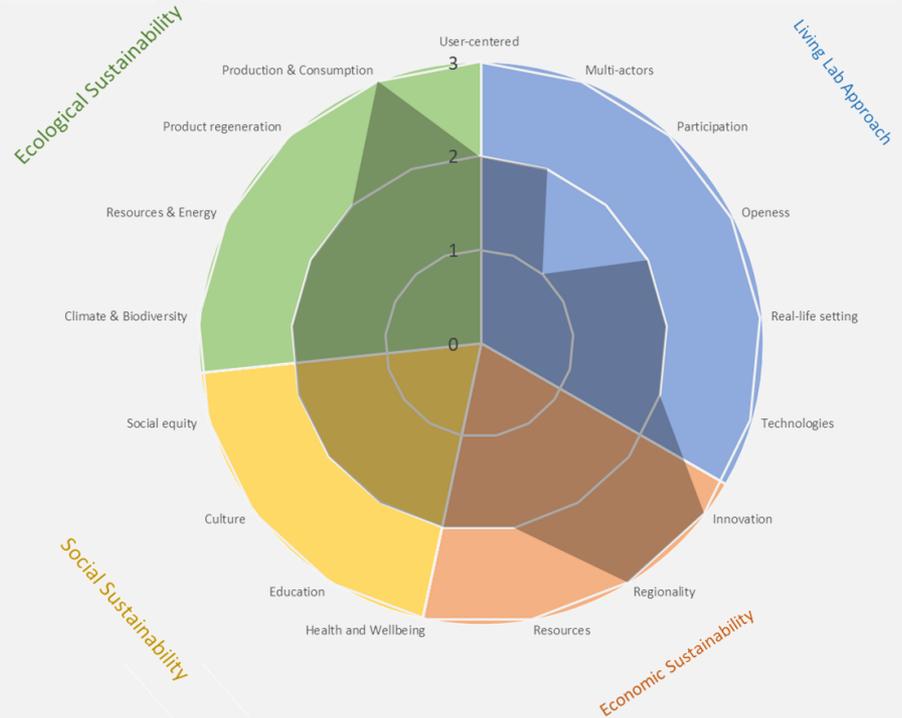


Quick hint!

A template for project evaluation and a vivid presentation of results are available.



Visualize it!



References



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Useful Websites

www.liverur.eu

www.enoll.org

https://ec.europa.eu/growth/industry/sustainability/circular-economy_en

https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/towards-circular-economy_en

www.echochain.com

<https://diytoolkit.org/>

www.mindmapping.com

www.solutioncanvas.com

www.businessballs.com

www.nesta.co.uk

www.stakeholdermap.com

<https://managementhelp.org>

www.simplypsychology.org

www.businessdesigntools.com

www.interaction-design.org

www.ica.org

www.businessmodelalchemist.com

www.strategyzer.com

www.designkit.org

www.actioncatalogue.com

www.usability.gov

www.marketingmix.co.uk

www.interaction-design.org

www.clearpoint.com

www.pdronline.com



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LIVING LAB RESEARCH CONCEPT IN RURAL AREAS

Guidelines for piloting RAIN Business Model



LIVE  **RUR**



**GOVERNO
DOS AÇORES**



FRCT

FUNDO REGIONAL PARA A CIÊNCIA E TECNOLOGIA

Content

- Purpose of the document
- Introduction
- Objectives
- Framework for the Pilots Program
- Stakeholders worksheet
- RAIN in a nutshell
- Brainstorming Worksheets (with orientations)

Purpose of this document

- The main purpose of this document is to suggest a methodological approach that will assist the co-creation and validation of RAIN Business Model.
- Co-creation workshops are an important part of the RAIN Business Model Development that will take place on a face-to-face basis, on an online basis, or even in a mix of both.
- Furthermore, this document aims at ensuring that the co-creation workshops will produce the expected results , in order to complete successfully WP5.

We wish you successfull RAIN co-creations!

Introduction

- WP 5 is devoted to pilot actions for implementation and impact assessment of new rural business models in a Living Lab environment in the 13 pilot regions. LIVERUR pilot actions are aimed at testing and assessing the New Rural Business Model approach developed in Task 4.4 in a Living Lab environment. (GA number 773757).
- These guidelines are being written in order to accomplish the commitments mentioned, using the Living Lab tools.
- All the 13 regions should make an effort to encourage public participation, having into consideration the COVID-19 rules.

Framework for the Pilots Program

- The RAIN Concept integrates the central LIVERUR topics, i.e. Business Models, Living Labs and Circular Economy in rural areas.
- It consists of three layers: the Business Model's Core Elements, the RAIN Principles and the RAIN Real Life Setting. Applying the RAIN Concept to a specific Business Model (or another undertaking, such as a project or a non-profit activity) results in the RAIN Business Model and is documented in the RAIN Business Plan (D4.4).
- According with [ENoLL definition](#), Living Labs are defined as user-centred, open innovation ecosystems based on a systematic user co-creation approach integrating research and innovation processes in real life communities and settings.

Framework for the Pilots Program - Objectives

- The objectives are to engage citizens, researchers, businesses and policymakers in the co-creation and validation of the 13 RAIN Business Models.
- Start the process of building a community in the RAIN platform.
- Integrate final users' visions and needs into each one of the 13 RAIN Business Models that will be co-build.

Framework for the Pilots Program Objectives

- The RAIN Concept, including the RAIN Real Life Setting, have been **tried and tested in theory by the LIVERUR partners**. It was found that the RAIN Concept is helpful for structuring both the development process and the results and that the key topics of LIVEUR (innovative and viable Business Models in rural areas, applying the Living Lab approach and the Circular Economy approach) are well represented. In WP5, the Living Labs in LIVERUR are going to apply the RAIN Concept in practice in a way that best fits their particular situation.
- **It is up to the users to what extent they make use of RAIN, whether they aim to develop and implement a full or a lean version.** For instance, **in a full version** of the RAIN Concept, all Core Elements of the Business Model could be elaborated and documented with a complete strategic and operative plan, all stakeholders involved from start to finish, and multiple feedback loops put in place. In a full version of the RAIN Real Life Setting, the given environment could be identified for all topics in great detail, on several occasions, for the present and the future, for a set of scenarios, by all stakeholders individually and then condensed in joint meetings etc. **In a lean version**, the stakeholders would clarify which results are needed, use the RAIN Concept and the worksheet templates for brainstorming and have only very limited documentation, if any. (D4.4, page 51)

Framework for the Pilots Program

- To meet the objectives all pilot partners should organise co-creation workshops and events to co-create their own RAIN Business Model inside their Living Labs.
 - This document will set up the basis of public participation under the Living Labs of LIVERUR project.
 - This guidelines are common to the 13 pilot regions, but flexible to be adapted to some particular needs or features of each region and also to each region COVID-19 situation!

How to organise co-creation workshops - General Steps

Stage	Component	Action
<p>8 Project Development Process Piloting RAIN</p>	Team	<p>1. Recruit a workshop team (internal or external to your institution)</p> <p>2. Make them understand the purpose and the framework of the RAIN BM co-creation process.</p>
	Purpose	<p>3. Identify the approach you want to have during the MML workshop (example: Biological Production Living Lab Perspective)</p>
	When and Where	<p>5. Determine the date and location of the workshop (physically, online, mix of both).</p>
	Participants	<p>7. Set up a stakeholder involvement strategy and design a recruitment plan including the follow up after the workshop. Start one month ahead of the potential date.</p> <p>8. Identify which stakeholders to involve and why. Create a list.</p>
	Facilitator	<p>9. Choose a facilitator.</p>
	Content	<p>10. Prepare a detailed programme of the workshop. Use the Sample of the Workshop Outline Plan and the methodology sheet in Action Catalogue. (http://actioncatalogue.eu/search)</p>
	Format	<p>11. Choose the format of the workshop from the Action Catalogue.</p>
		<p>12. Prepare refreshments.</p>
		<p>13. In collaboration with the WP7 team, prepare a coherent communication strategy and communication tools (e.g. press releases, LIVERUR project presentation, workshop presentation, posters, free gifts and gadgets, etc.). Use LIVERUR hashtags #LIVERUR and mention @LIVERUR in your publications before the event.</p>
		<p>14. Promote the workshop and the overall co-creation process to bring stakeholders you have not identified yet to you. Think of various incentives for stakeholder participation, such as professional development credit, presence of keynote speakers, publication of results, networking opportunity, an attractive setting linked to the workshop topic, a wine tasting, etc.</p>
		<p>15. Send invitations and recruit participants one month ahead of the date of the workshop at the latest. Be sure the purpose of the workshop is clearly detailed.</p>
	Materials	<p>16. Prepare the workshop participant specific materials: an informed consent form (WP7), content documents, photos, posters, post-its, films, etc.</p>
		<p>17. Upload the materials to RAIN platform and share them with the workshop participants from the project website and social networks.</p>
	Participants	<p>18. If you have not managed to recruit many participants yet, contact them again by telephone and e-mail. Revise the participant list, broaden the scope and look for new names. Ask third parties to connect you to the desired participants.</p>
	Workshop	<p>19. Carry out the workshop face-to-face or online with the support of social networks and online tools (videoconference, chat, on-line participatory methods).</p>
		<p>20. Use LIVERUR hashtags #LIVERUR and mention @LIVERUR in your publications during the event.</p>
	Analysis	<p>21. Evaluate the process and results. Complete the Reporting Template. Collect and report best practices and challenges identified. Collaborate with your region technical partners and with the Task Force.</p>
	Follow-up	<p>22. After the end of the workshop, encourage participants to visit the RAIN Platform, subscribe it and to follow the LIVERUR project in the social networks.</p>
		<p>23. Disseminate the workshop results to external and internal stakeholders: workshop participants, LIVERUR partners, your staff, external stakeholders and partners. Invite them to join the RAIN platform.</p> <p>24. Follow-up on the co-creation workshop. Keep the stakeholders involved on the RAIN Platform through the LIVERUR communication and dissemination activities and tools throughout the project.</p>

Framework for the Pilots Program

- The workshops will address 9 RAIN BM brainstorming worksheets.
- You can choose the number of workshops you need to address them and the format.
- **Selecting de format:**
 - Use the **LIVERUR ToolBox** to choose the most suitable format for your co-creation event.

Example:

- Brainstorming
- <http://actioncatalogue.eu/search>
- Design Thinking
- or other.

Framework for the Pilots Program

- **Duration of the workshop:**

- In most of the cases, it should take 2 or 3 workshops to address the 9 brainstorming sheets. You are free to choose 2 full days, 3 half days, or any other format.

- **Date:**

- When setting the date, consider community activities that can boost the participation of all stakeholders' groups. Weekdays are usually better!

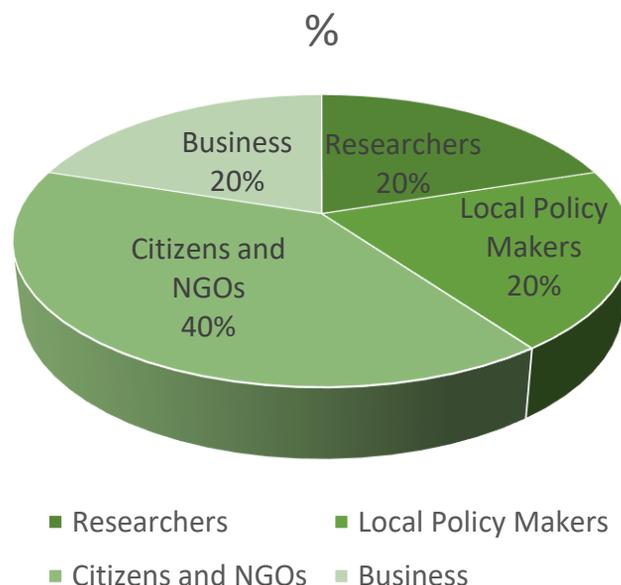
- **Location:**

- Since LIVERUR wants to promote a Living Lab environment and if you don't have yet your own physical infrastructure, consider a location that is nice to promote dialogue.
- Choose a room large enough so people can circulate and Exchange ideas.
- The location should be politically neutral.
- Have all the essential facilities: toilets, water, coffee, air conditioning, etc.
- If the location is **online**, choose a platform that is easy and intuitive to use!

Framework for the Pilots Program

- **Recruiting participants:**

- Each partner will develop their own stakeholders involvement strategy and recruitment plan. We will provide a template for the effort.
 - Make a list of stakeholders, organisations and networks that might have interest in your Rural Living Lab. Be inclusive!
 - Identify keynote speakers who can introduce the purpose of the LL , the RAIN BM concept and what we expect from the stakeholders. It's importante to empower before requesting involvement!
 - Communicate with the stakeholders to get them committed towards the workshops.
 - Get a good stakeholders balance and don't forget gender balance!



Framework for the Pilots Program

- **Recruiting participants - message**
- A letter of invitation should be send to the stakeholders, including:
 - Who is doing the workshop and why;
 - The expected role and contribution;
 - Date, Place and Program;
 - RGPD issues and a link to an informed form (if you opt for an online version);
 - A contact for further information;
 - A link to LIVERUR website and Social Networks.

Framework for the Pilots Program

- **Promotion of the workshop:**
- The promotion starts with the invitation of participants.
- Leave you some ideas for public awareness:
 - Contact local media (newspaper, local radio, local TV);
 - Make presentations about you RLL in other events;
 - Develop activities to draw attention (photo contest, local products tasting, etc);
 - Use the project social networks and use your local social networks, Facebook groups to share content;
 - Use the Facebook events to get unknown stakeholders.

Framework for the Pilots Program

- **Material for the workshop:**
- Prepare everything in advance and in accordance with the methodology of stakeholder involvement you chose previously.
- Find below some suggestions of material that is most commonly useful:
 - Programme
 - Films
 - Flipsharts
 - Paper to write the ideas
 - Post-its
 - Colour markers, pens, pencils
 - Camera or mobile to film and take pictures
 - Computer
 - Projector
 - Other

Carrying out the workshops

- **Role of the participants:**

- During the workshops the participants will be requested to contribute to the creation of the Rural Living Lab Business Model;
- Assess their needs regarding the RLL;
- Have a participatory approach.

- **Role of the facilitator or facilitators:**

- The role of the facilitators is crucial. By facilitating the discussion and activities, they ensure the quality of the results. It also helps to keep everything on time and on track.
- The facilitator must be empathetic, a good listener and enthusiastic. He/she should be able to develop a trustful relationship with the participants.

- **Where to find a facilitator or facilitators:**

- Among your staff;
- Among Stakeholders or participants in the workshop;
- Among journalists;
- Among consultants.

Framework for the Pilots Program

- **Role of organising team during the workshop:**
 - The organising team will:
 - Document all steps of the workshop;
 - Make sure the results and voting statements are recorded;
 - Record all lessons learned (both positive or negative)
- **Role of organising team after the workshop:**
 - Evaluate the workshop, process and results in a reporting template provided for the purpose;
 - Disseminate the results;
 - Follow up participants by encouraging interaction in the RAIN Platform;
 - Inform and invite them to other workshops;
 - Inform and invite them to LIVERUR project events.

Framework for the Pilots Program

- Other details, such as catering, must also be addressed!



Visualize it!

Overview

- Theme: _____
- Title: _____
- Date: _____
- Audience: _____

Program

- Lectures
- Work/training sessions
- Q&A
- Breaks
- Opening & Closing
- Lunch / Dinner
- Parallel sessions

Logistics

- Registration
- Catering
- Welcoming
- Transfers
- Special requirements

People

- Organising Committee
- Assistants
- Experts
- Lecturers
- Guests
- Official representatives

Workshop

Venue

- Rooms
- Seats (number)
- Wi-fi / Internet
- WC
- Technical support
- Cooling / Heating
- Parking

Budget

- Registration fees
- Sponsors
- Costs (equipment and venue rental, catering, materials, promotion, etc.)

Promotion

- Brochures
- Posters
- Social Media
- Website/Landing page
- Press releases

Tools & Resources

- PC
- Projector
- Whiteboards/Flipcharts
- Screens
- Pointers
- Microphone & Sound
- Pens, paper, ...

Framework for the Pilots Program

- **Stakeholder Engagement:**

- A stakeholder is any individual, group or organisation affected by, or able to affect, a proposed project and its implementation. This includes the general public, as well as businesses, public authorities, researchers, experts and interest groups.

There are different levels of stakeholder involvement and strategies to their inclusion:

- ***Inform***

- This is one-way communication. Announcements, press releases, position statements etc. are tools that belong to this level of engagement. Stakeholders receive information without an expectation of two-way dialogue.

- ***Consult***

- Stakeholders receive proposals and options and they provide feedback that is incorporated in planning. This is usually done through focus groups, individual interview and surveys. The objective is to benefit from stakeholders' knowledge of local conditions.

- ***Involve***

- Stakeholders generate options and carry out actions that emerge from their output, but they do not share formal decision-making authority.

- ***Collaborate / Empower***

- Stakeholders share goals, decide and act together with the decision-making authority. They own the development and implementation processes.

LIVERUR Template Stakeholder identification and description matrix

D.1. Template Matrix for Stakeholder identification and description (based on Menny et al., 2018), from task 3.5

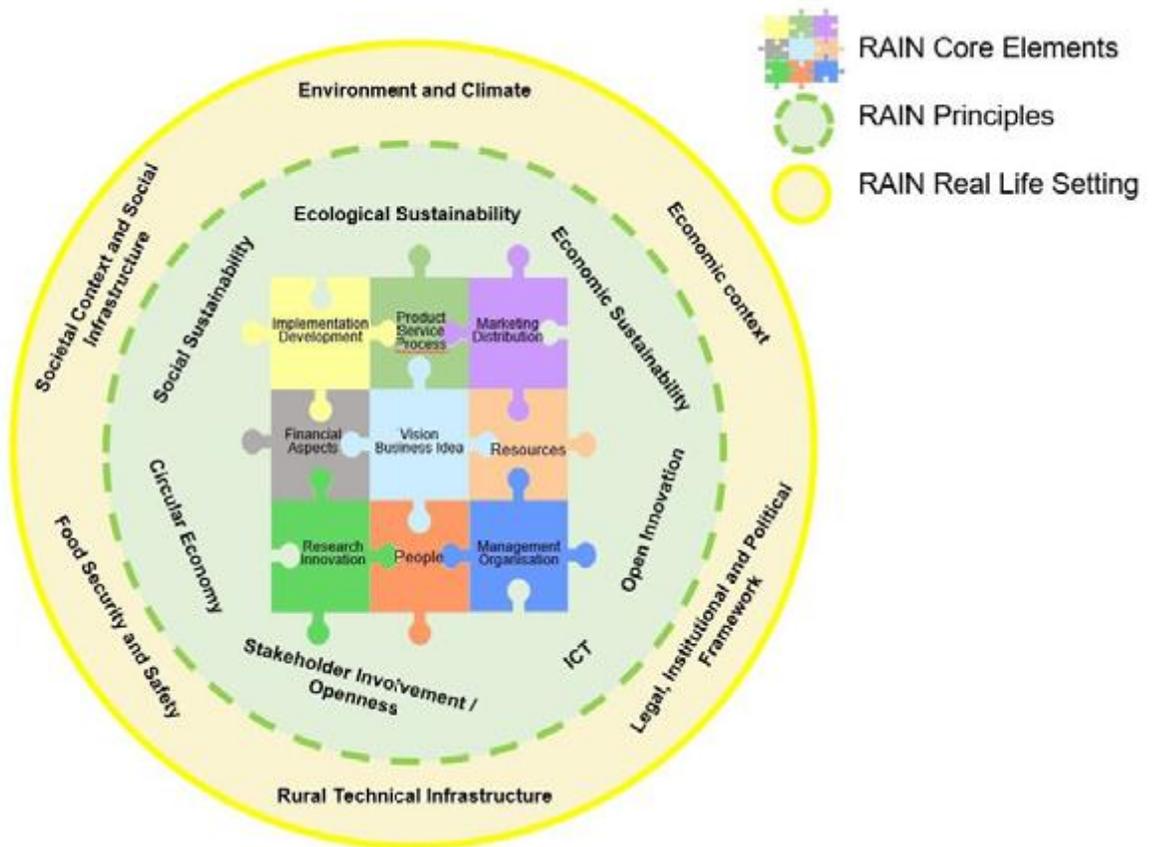
STAKEHOLDER (Name / Institution)	INSTITUTIONAL LOGIC / ACTION LOGIC	INTEREST IN PROJECT	STRATEGY OF INCLUSION	CHALLENGES	PLANNED RESPONSES TO CHALLENGES
PUBLIC SECTOR					
PRIVATE SECTOR (Business & Industry)					
USERS (e.g. interest groups)					
KNOWLEDGE INSTITUTIONS					

RAIN in a nutshell

The RAIN Concept is based on the following premises:

- It integrates RAIN Core Elements, RAIN Principles and RAIN Real Life Setting.
- **The starting point is recommended to be “Vision and Business Idea”**, but there is no general sequence of working on the other elements – depending on the phase of the idea or the project. Feedback loops are important.
- Interdependencies exist among all the elements.
- For every RAIN Core Element, there is a worksheet on RAIN Principles and a set of suggested methods (both derived from literature and LIVERUR deliverables).
- It depends on time resources, type, number and qualification of participants which elements you choose to work on, how intensively or in how much detail you work on each of the RAIN Core Elements.
- The concept is flexible, open for exchange or additionally to RAIN Core Elements. The presentation of the concept in the shape of a puzzle should express that:
 - ✓ There is no explicit start or end. Depending on the phase of a project and the progress on one or the other elements, any element can be used as a starting point for drafting the Business Model. In the end, everything should fit together.
 - ✓ The RAIN Core Elements are interdependent, shaped by the RAIN Principles and embedded in the RAIN Real Life Setting

RAIN in a nutshell



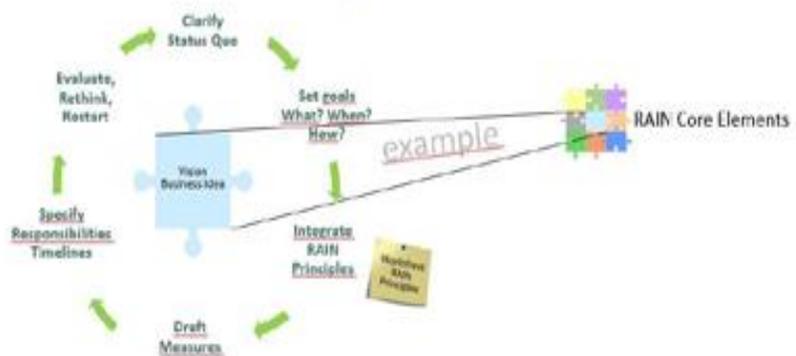
The RAIN Concept has **three layers**: the Business Model’s Core Elements (jigsaw puzzle), the RAIN Principles (inner ring) and the RAIN Real Life Setting (outer ring). The layers and their components are interdependent, both within each layer and across layers.

- The Business Model’s **Core Elements** capture the central Business Model. The nine suggested Core Elements are: vision and business idea; people (partners, customers, stakeholders); resources; research and innovation; implementation and development; management and organisation; financial aspects; product, service, process; marketing and distribution.
- The **RAIN Principles** should be embedded in each Core Element. The seven RAIN Principles are: social sustainability; ecological sustainability; economic sustainability; open innovation; stakeholder involvement and openness; Circular Economy as well as information and communication technology (ICT).
- The **RAIN Real Life Setting** limits or enables the Business Model. The six topics considered in the RAIN Real Life Setting are: environment and climate; economic context; societal context and social infrastructure; rural technical infrastructure; legal, institutional and political framework; food security and safety.

How to apply?

RAIN application in 5 TASKS

- 1.** To start: Choose the RAIN Core Element Vision/Business Idea and take the regional specific worksheet RAIN Real Life Setting into consideration
- 2.** Choose one of the suggested methods to elaborate this RAIN Core Element (following the LIVERUR Toolbox) 
- 3.** Follow the working steps for this RAIN Core Element („piece of the puzzle“)



- 4.** Summarise all findings regarding the chosen RAIN Core Element (corresponds to one chapter of your RAIN Business Plan)
- 5.** Choose next RAIN Core Element („piece of the puzzle“) - go back to task 2 and through all tasks for all 9 RAIN Core Elements

Result: RAIN Business Plan



How to apply?

Find below the Brainstorming worksheets with orientations to facilitate the co-creation process.



**Vision
Business Idea**

ECONOMIC SUSTAINABILITY

e.g. enhance job creation and availability; employ local personal; resources; existing markets (supply & demand); competitors; achieve higher levels of economic productivity;

ECOLOGIC SUSTAINABILITY

e.g. e.g. enhance ecosystem thinking; improve resource efficiency, energy efficiency and/or water consumption; employ renewable energy; sustain climate action and enhance biodiversity; enrich landscape structure; availability of natural resources

SOCIAL SUSTAINABILITY

e.g. education and learning; integration; inclusion; gender equality, health and wellbeing; community development; protect labor rights; promote safe and secure work environments;

CIRCULAR ECONOMY

e.g. regenerative system; design of circular processes; waste management;

STAKEHOLDER INVOLVEMENT

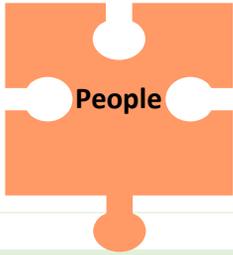
e.g. important partners, stakeholders, customers; think of how to involve them; participation opportunities; involvement of the general public;

OPEN INNOVATION

e.g. stimulation of open innovation; think of potential kinds of innovation; existing platforms for open innovation (e.g. hubs);

ICT ENABLED ENVIRONMENT

e.g. think of possible ICT hardware and software; potential ICT partners; ideas for smart support of the proposed activities;



ECONOMIC SUSTAINABILITY

e.g. which stakeholders can help improving economic sustainability; costs and benefits of involving people; competitors; potential partners;

ECOLOGIC SUSTAINABILITY

e.g. which stakeholders (e.g. NGOs, environmental agencies, environmental engineers etc.) can be involved to help improving and strengthening ecologic sustainability; raising awareness for ecologic issues and strengthen it; key stakeholders for issues of sustainability (water, energy, representatives of protected areas, ...)

SOCIAL SUSTAINABILITY

e.g. which stakeholders can help improving and strengthening social sustainability; diversity among involved people; existing incentives for user involvement; trust-building measures;

CIRCULAR ECONOMY

e.g. find out essential stakeholders for designing and implementing circular processes;

STAKEHOLDER INVOLVEMENT

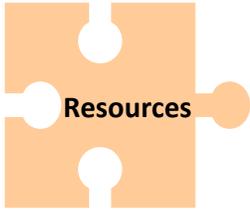
e.g. involvement of various target groups in open and ongoing way; create strategic networks; multi-actor approach; how to motivate people to participate (esp. end users); (physical) space to meet; balanced public and private involvement; care for privacy; Plan B if key stakeholders leave the

OPEN INNOVATION

e.g. long-term integration of people in open innovation process; incentives for involvement;

ICT ENABLED ENVIRONMENT

e.g. selection of ICT infrastructure that supports interactive involvement of various stakeholders; accessibility; ICT responsible; ICT availability; minimum requirements in initial stage and extension stages;



ECONOMIC SUSTAINABILITY

e.g. necessary and available key resources; economically sustainable resource use; specific rural resources; costs of resources in the region; financial aspects of resource acquisition: leasing, renting, buying material resources; outsourcing; financial resources: debt or equity financing;

ECOLOGIC SUSTAINABILITY

e.g. sustainable resource use; natural/degradable raw materials; ecological footprints of resources (in the region); environmental impact of all kinds of resources both on input and output level, reduce carbon emissions;

SOCIAL SUSTAINABILITY

e.g. necessary and available human resources; fair treatment of employees; access to education and training; community building; social impacts of employing all kinds of resources both on input and output level;

CIRCULAR ECONOMY

e.g. necessary and available key resources; circular usage of resources; minimisation of resource input, waste, emission and energy leakage; avoid using non-renewable resources;

STAKEHOLDER INVOLVEMENT

e.g. who can provide which resources or knowledge for production and distribution, customer relationships;

OPEN INNOVATION

e.g. use of resources in open innovation process; material innovation processes, R&D;

ICT ENABLED ENVIRONMENT

e.g. ICT infrastructures and applications for locating resources, for managing circular processes; traceability of material components of composite resources;



ECONOMIC SUSTAINABILITY

e.g. share of existing investments for R/I in total expenditure; measurable outcomes and efficiency of R/I; investments; identification of business opportunities in cooperation with R/I;

ECOLOGIC SUSTAINABILITY

e.g. improve environmental impacts of business through R/I such as resource efficiency, reducing emissions and other negative externalities of the business; integration of results from sustainability research;

SOCIAL SUSTAINABILITY

e.g. mutual understanding and awareness among involved people; (identification of) research projects/results concerning R/I;

CIRCULAR ECONOMY

e.g. improve circular processes in R/I; long-lasting design of processes, products, services; how to use by-products or waste out of a certain process;

STAKEHOLDER INVOLVEMENT

e.g. openness to new markets, technologies; steady involvement of various groups of people (multi-actors: internal and external researchers, customers, stakeholders); identification of research organisations; means of integrating end-users in R/I;

OPEN INNOVATION

e.g. existing innovation expertise and competences among involved people; openly designed R/I processes; possibilities to connect internal innovation to external ideas; consideration of four main pillars as option for innovation (Finance, Process, Offering, Delivery); intensity of innovation; time horizon of R/I;

ICT ENABLED ENVIRONMENT

e.g. specific cutting-edge ICT structures and applications to support open processes and sharing knowledge;



**Implementation
Development**

ECONOMIC SUSTAINABILITY

e.g. specific implementation plan with objectives, work packages, timelines, responsables, risks, costs;

ECOLOGIC SUSTAINABILITY

concern of ecologic sustainability in I/D (e.g. water, energy, climate, biodiversity, ...);

SOCIAL SUSTAINABILITY

concern of social sustainability in I/D (e.g. education, gender equality, ...);

CIRCULAR ECONOMY

e.g. implementation of circular processes and consideration in evaluation;

STAKEHOLDER INVOLVEMENT

e.g. steadily involvement of various groups of people (multi-actors: internal and external researchers, customers, stakeholders);

OPEN INNOVATION

e.g. open design of I/D processes;

ICT ENABLED ENVIRONMENT

e.g. specific ICT structures and applications to support I/D



ECONOMIC SUSTAINABILITY

e.g. structures and forms of organisation, efficiency of structures; planned personnel;

ECOLOGIC SUSTAINABILITY

e.g. install responsible for ecologic sustainability; create awareness among employees; concern of ecologic sustainability in M/O (such as energy, water, climate, biodiversity, ...);

SOCIAL SUSTAINABILITY

e.g. implementation of reflection, evaluation, learning processes; install responsible for CSR (corporate social responsibility); recognition and appreciation of activities for community-building among employees; diversity and gender equality in organisation structure;

CIRCULAR ECONOMY

e.g. implementation of circular processes and consideration in evaluation;

STAKEHOLDER INVOLVEMENT

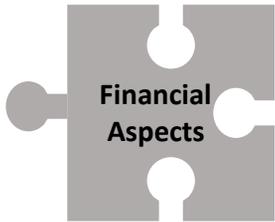
e.g. clarity about responsibilities, roles, representatives, deputies, coordination, voting processes; structures that involve various groups of people (multi-actors: internal and external researchers, customers, stakeholders); transparent processes; provision of periodic information;

OPEN INNOVATION

e.g. design M/O processes for open innovation; create structures that care for continuous generation of new ideas;

ICT ENABLED ENVIRONMENT

e.g. necessary ICT structures and applications to support modern and interactive M/O processes; ; agile project management;



ECONOMIC SUSTAINABILITY

*e.g. knowledge about consumers
willingness to pay; consideration of
economic sustainability in financial matters;
proven competitiveness; role of public
funding; efficient resource use; most
important costs and cost drivers; strived
revenues, profits; financial aspects of
resource acquisition: leasing, renting,
buying material resources; outsourcing;
financial resources: debt or equity
financing; profit vs. non-profit or hybrid
businesses;*

SOCIAL SUSTAINABILITY

*e.g. consideration of social values in
financial topics; fair wages; voluntary
benefits for employees;*

ECOLOGIC SUSTAINABILITY

*e.g. consideration of ecologic and
non-financial values in financial
topics; funding of ecologic topics;*

CIRCULAR ECONOMY

*e.g. consideration and implementation
of circular economy;*

STAKEHOLDER INVOLVEMENT

*e.g. adapt financial
topics to involve various
groups of people (multi-
actors: internal and
external researchers,
customers,
stakeholders); provide
financial resources for
stakeholder involvement
(e.g. for meetings,
snacks, ...)*

OPEN INNOVATION

e.g. crowdfunding;

ICT ENABLED ENVIRONMENT

*e.g. necessary ICT
structures and
applications to support
modern financial
processes;*



ECONOMIC SUSTAINABILITY

e.g. adaptation of products/services consumer needs; properties of P/S/P; value for the customer; which price-segment; unique-selling proposition; benefits for local community/region; intellectual property rights; ownership vs. accessibility; transferability; profit vs. non-profit or hybrid businesses;

ECOLOGIC SUSTAINABILITY

e.g. products combined with services; sustainable product/service and process design; durable products; improving overall environmental impact of P/S;

SOCIAL SUSTAINABILITY

e.g. how does the p/s address social needs or alleviate social disparities; health, well-being and lifelong learning of employees, equal treatment of woman and men along the supply chain of P/S/P;

CIRCULAR ECONOMY

e.g. implementation of circular processes in production of P/S; considering life extension, maintenance, repair, reuse, remanufacturing, refurbishing, re- and upcycling;

STAKEHOLDER INVOLVEMENT

e.g. identification of customer segments and their different needs; adaptation of P/S/P to various group of people (multi-actors: internal and external researchers, customers, stakeholders; checking new and traditional possibilities (B2B, B2C, C2C, P2P, C2B));

OPEN INNOVATION

e.g. open design of production; structures that care for continuous generation of new ideas;

ICT ENABLED ENVIRONMENT

e.g. necessary ICT structures and applications; creation of platforms as service; ICT support for all possibilities (B2B, B2C, C2C, P2P, C2B);



ECONOMIC SUSTAINABILITY

e.g. building up of awareness, brand and image of product/service; channels to address customers; mutual support of channels; efficiency of channels;

ECOLOGIC SUSTAINABILITY

e.g. shortening of transport routes; choice of sustainable transportation modes; sustainable logistics; sustainable packaging;

SOCIAL SUSTAINABILITY

e.g. relation with customers, stakeholders; social sustainability in partnerships;

CIRCULAR ECONOMY

e.g. circular processes implemented and considered;

STAKEHOLDER INVOLVEMENT

e.g. steadily involvement of various groups of people (multi-actors: internal and external researchers, customers, stakeholders;); possible/necessary co-operations;

OPEN INNOVATION

e.g. open design of M/D;

ICT ENABLED ENVIRONMENT

e.g. necessary ICT structures and applications; ICT support for all possibilities (B2B, B2C, C2C, P2P, C2B);



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