METHODOLOGY FOR CULTURAL TOURISM LAB

Atlas

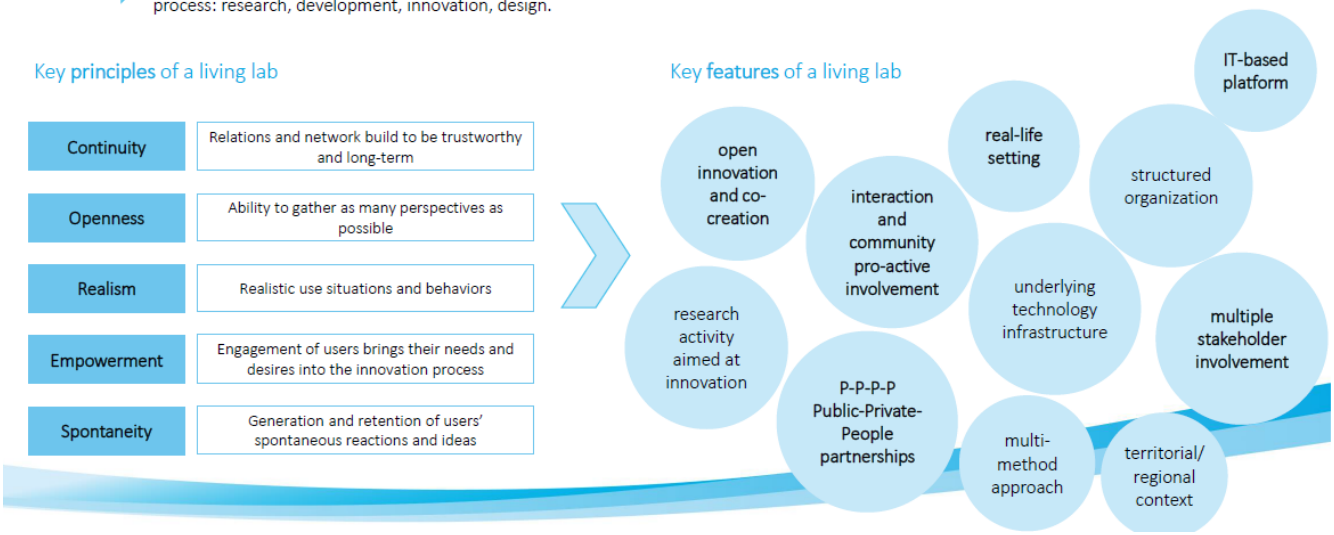
Adriatic Cultural Tourism Laboratories
(WP5.1.1/Sipro Spa, February 2019)

SUMMARY

WHAT IS A LIVING LAB?

A Living Lab is an open innovation environment – a place and/or a virtual reality -in real-life settings in which user-driven innovation is the co-creation process for new services, products and societal infrastructures. Living Labs encompass societal and technological dimensions simultaneously in a business-citizens-government-academia partnerships.

In a Living Lab all stakeholders, included end users/consumers, of a product/service are at the center of research and innovation efforts and systematically play an active role in contributing to the co-creation of new and innovative products and services at all stages of the innovation process: research, development, innovation, design.



Living labs include and evolve from other open innovation methodologies, such as open innovation and co-creation.

	User innovation	Co-creation	Living labs (LLs)
Objectives	To **customize or improve** existing products or services	• To create new **complementary** products and services • Modulation • To accelerate commercialization of products	• To match updated market needs and conditions with latest technology applicable • To build the an ecosystem for innovation • To enhance collaboration among stakeholders • To create new business opportunities
Stakeholders	• Users/communities • Sponsors • Manufacturers • Suppliers • Research Institutions	• Users/communities • Sponsors • Manufacturers • Suppliers • Complementary Firms	• Users/communities • Manufacturers • Suppliers • **IT providers** • Research Institutions • **Public Administrators** • Complementary Firms • **Competitive Firms**

BENEFITS AND ADVANTAGES OF LIVING LABS

Living Labs (LLS) have proven to:

- **Promote and stimulate innovation** from research centers and business closed environments to real-life contexts
- Enable for **unique and cost efficient knowledge** (data and insights on users' experience) at all development stages
- Allow for **collaboration** among different stakeholders through the whole innovation process and **increase their capacity in co-operation**
- Help identify **new markets**, new market **opportunities**, product/service development and improvement
- Guarantee **greater and better knowledge of end-users**, their expressed and latent needs, their expectations
- Can help reduce time-to-market and lead times for new profits and services, and bring higher profits
- Allow for a **higher degree of satisfaction** and greater potential for **commercialization** of innovative product/service, hence minimizing the risk of failure
- Develop **methodology** and **tools** that can be replicated in similar contexts
- Improve **knowledge** transfer and retention

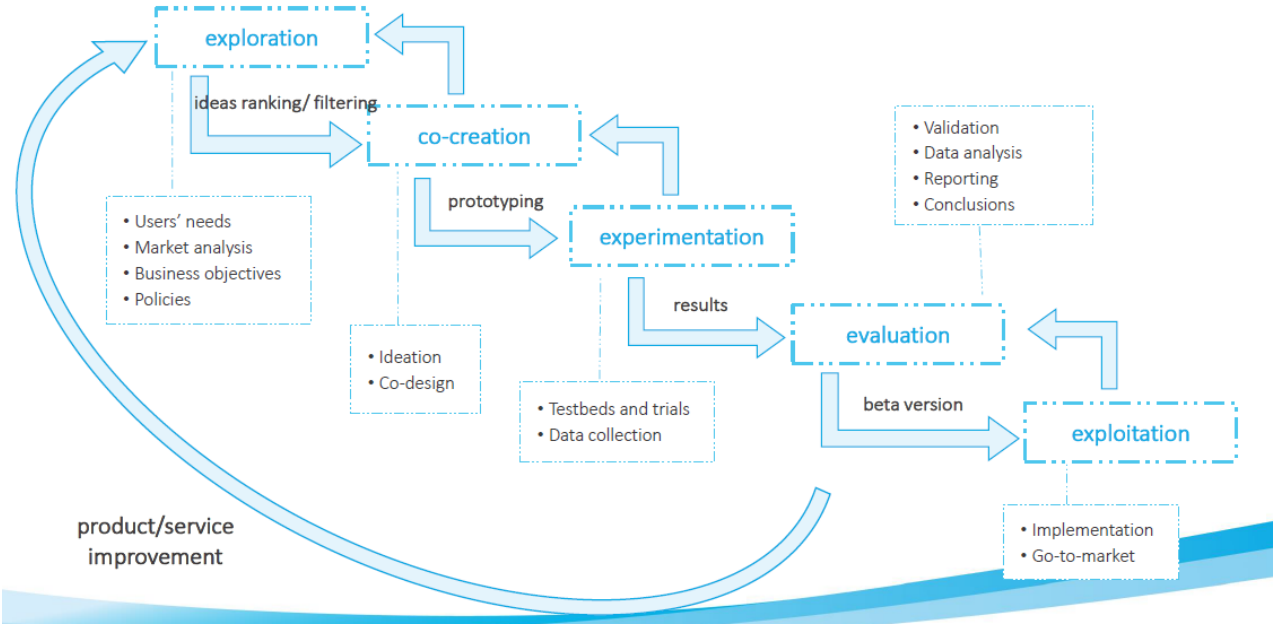
GOALS OF THE CULTURAL TOURISM LIVING LABS

Main goal

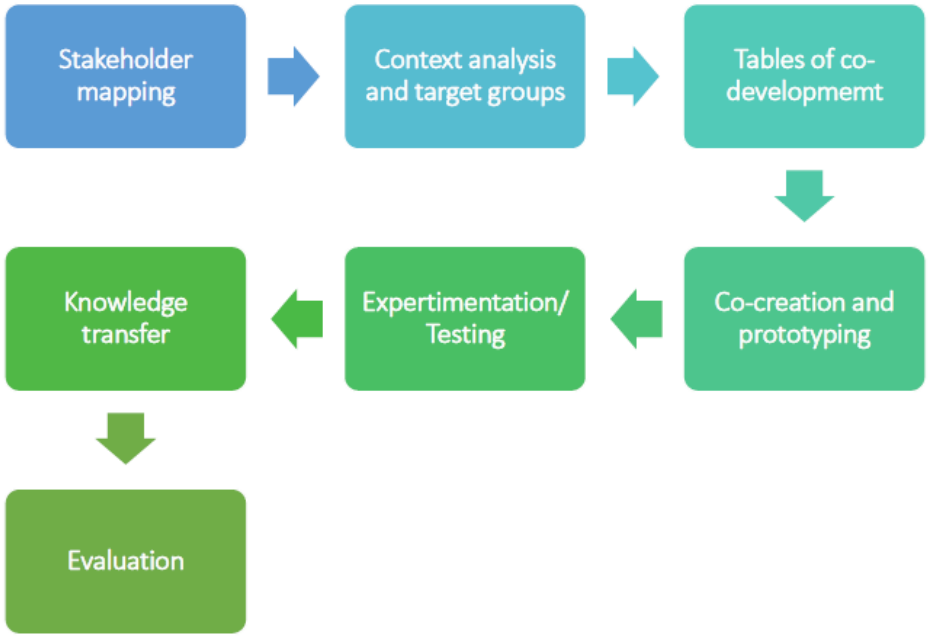
To co-create and co-develop a set of a cultural tourist experiences based on needs and actions of target tourists and enhanced by technology, which can be replicable across the areas concerned by the ATLAS project.

Output	Outcome
• Identification of opportunities (new products/services, new markets, incremental/disruptive product/service innovation) in cultural tourism with respect to the destinations involved in the project • Information sharing and exploitation of synergies across stakeholders and networks involved in the ATLAS project • Knowledge retention (collaborative methods, tourist experience and co-creation concepts, technology concepts and prototypes) among stakeholders • Transfer of knowledge and know-how to other actors who operates and/or run business within the destination and in the network • Opportunity to derive and share benchmarking practices	• Enhanced capacity to innovate among tourist providers and change in the innovation management culture • Development of sustainable competitive advantage for cultural institutions • Adoption of open innovation approaches and tools into stakeholders' management practices • Increased strategic thinking and "tourist intelligence" for all actors at all stages of the touristic value chain • Support in the development of an integrated offer of touristic product and services on a given destination • Access to international networks and increased opportunities for further collaboration • Increase in stakeholders' and actors interest for IT applications to tourism • Decrease of stakeholders' and actors' gaps in IT competency and improvement in IT skills

THE MODEL


exploration
ideas ranking/ filtering
co-creation
prototyping
experimentation
results
evaluation
beta version
exploitation
• Users' needs
• Market analysis
• Business objectives
• Policies
• Ideation
• Co-design
• Testbeds and trials
• Data collection
• Validation
• Data analysis
• Reporting
• Conclusions
• Implementation
• Go-to-market
product/service
improvement

PHASES AND ACTIVITIES



Part of ATLAS WP 3.1.5

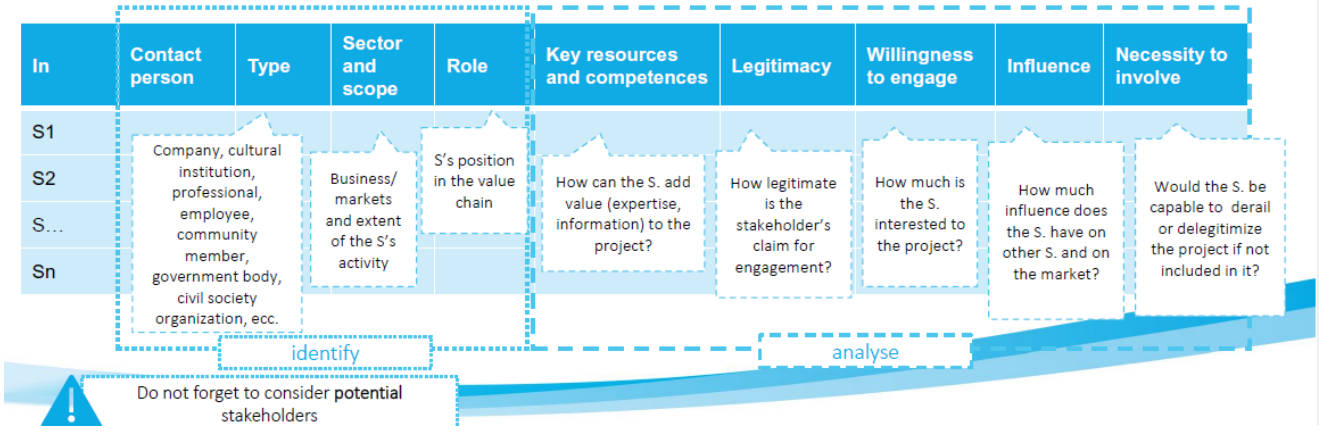
1. STAKEHOLDER MAPPING

A stakeholder map is a list of key stakeholders, which are relevant to the project across all area and sectors.

Steps of this activity are:

- Identify and analyse stakeholders: list relevant stakeholders and set up a database, evaluate each stakeholder's key variables to assess its compliance to the project
- Map stakeholders: rank each stakeholder's relevance and impact to the project, define its role in the project.

STAKEHOLDER DATABASE

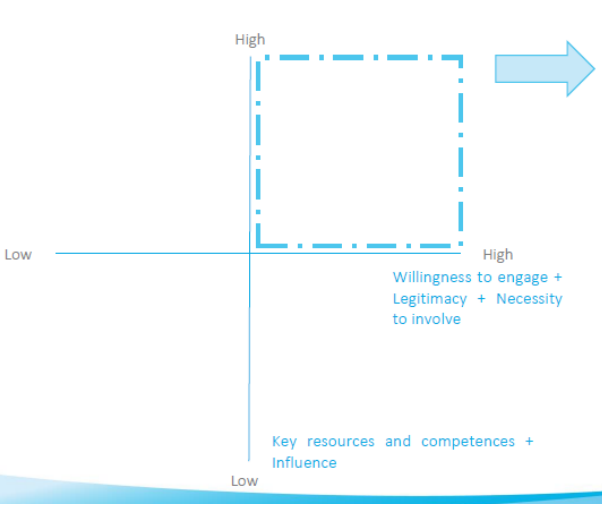


Part of ATLAS WP 3.1.5

1. STAKEHOLDER MAPPING

***Mapping** stakeholders is a visual exercise and analysis tool useful to determine **which stakeholders to engage**.*

Mapping permits evaluation and comparison of listed stakeholders using the given key criteria and their mutual relations.



engage

- Deliver **information** regarding the project
- Communicate **mutual benefits and value** related to the participation at the project
- Build and promote the technological and physical **infrastructure** to allow participation
- Set and plan online and offline **activities**

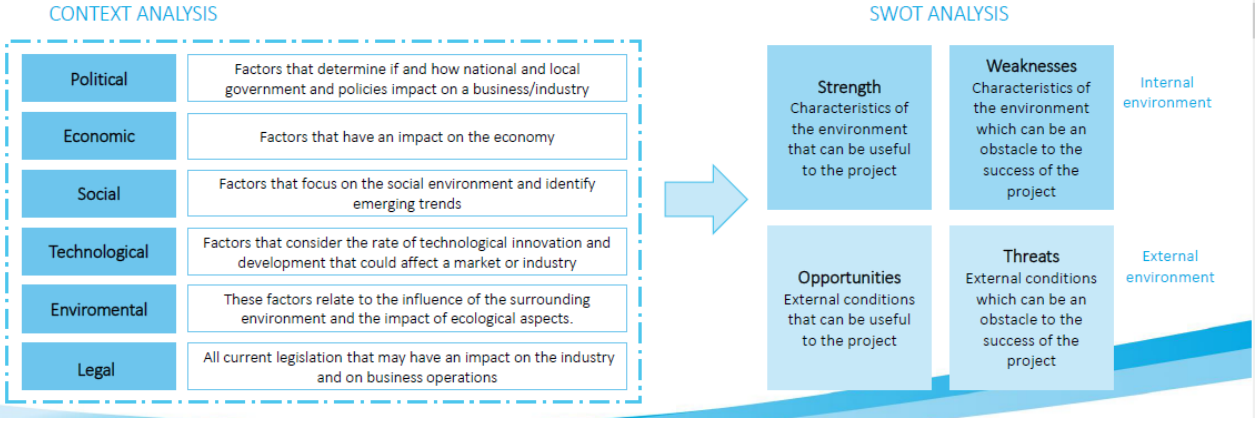
Part of ATLAS WP 3.1.5

2. CONTEXT ANALYSIS AND TARGET GROUPS

The aims of these tasks are to understand marketplace environment and dynamics, to identify and select target users and to entrench each segment's characteristics and needs.

Steps of this activity are:

1. Context analysis and SWOT: analyse both the internal and the external environment, i.e. the destination and its tourism businesses, and identify strengths and weaknesses (internal), opportunities and threats (external)
2. Market segmentation: divide the potential market into groups, or segments, based on different characteristics.



Part of ATLAS WP 3.1.5

2. CONTEXT ANALYSIS AND TARGET GROUPS

Research topics and questions for the context analysis include:

- Trends in demand and supply for the cultural sector at an international and national level
- Characteristics of the demand and the supply in the destination's cultural sector
- Trends in demand and supply for the cultural sector at an international and national level
- Characteristics of the demand and the supply in the destination's cultural sector
- State of the art in the use of technologies applied to culture and tourism and developing opportunities
- Factors that can boost, support or undermine such developing opportunities or local adoption of technologies

Desk analysis	Refers to the use of **secondary data** (i.e. information already available for consultation)	Statistics and reports produced by UNWTO, World Bank, EUROstat, WTTC, Government bodies, Universities, DMOs, independent research institutes, business associations, specialized companies and consultancy firms, Google trends...
Field analysis	Relates to primary data, i.e. data collected via fieldwork conducted **specifically for project purposes**	interviews, questionnaires, focus groups, hall tests, observation

Part of ATLAS WP 3.1.5

2. CONTEXT ANALYSIS AND TARGET GROUPS

Market segmentation *allows to divide a market of potential customers into groups, or segments, based on different characteristics. Each segment represents a cluster of consumers who will respond similarly to marketing strategies and who share similar features (interests, needs, expectations, preferences).*

MARKET SEGMENTATION

TARGET GROUPS DEFINITION

- Primary target group(s) represents consumers that are most devoted to cultural tourism and, given their characteristics and needs, show the highest potential demand for cultural tourism innovative product/service and it is estimated that they are more likely to be willing to pay for such products and services
- Secondary target group(s) identify consumers that are interested in cultural tourism and, given their characteristics and needs, show a potential demand for cultural tourism innovative product/service, and it is estimated that the demand could grow in the future

The definition and selection of target market groups is crucial to determine the positioning of the product/service to be co-designed and co-developed in the next steps.

3. TABLES OF CO-DEVELOPMENT

As user involvement is crucial for the achievement of a Living Lab's objectives and purposes, ***user engagement activities and tools*** *are of crucial importance and have to be planned according to the target and to the specificity of the project.*

Most suitable activities and tools are to be implemented in order to recruit and maintain a consistent and actively contributing pool of target market (user) representative participants.

In Living Labs users are typically involved through face-to-face methods borrowed from other fields, such as anthropology and human-computer interaction, including observation, focus groups, cultural probes, workshops

Kick-off events ensure participants a better understanding of the project and their role at the various steps in the project. This allows for feelings of trust and empowerment, which can generate a more active participation either in co-development and feedback.

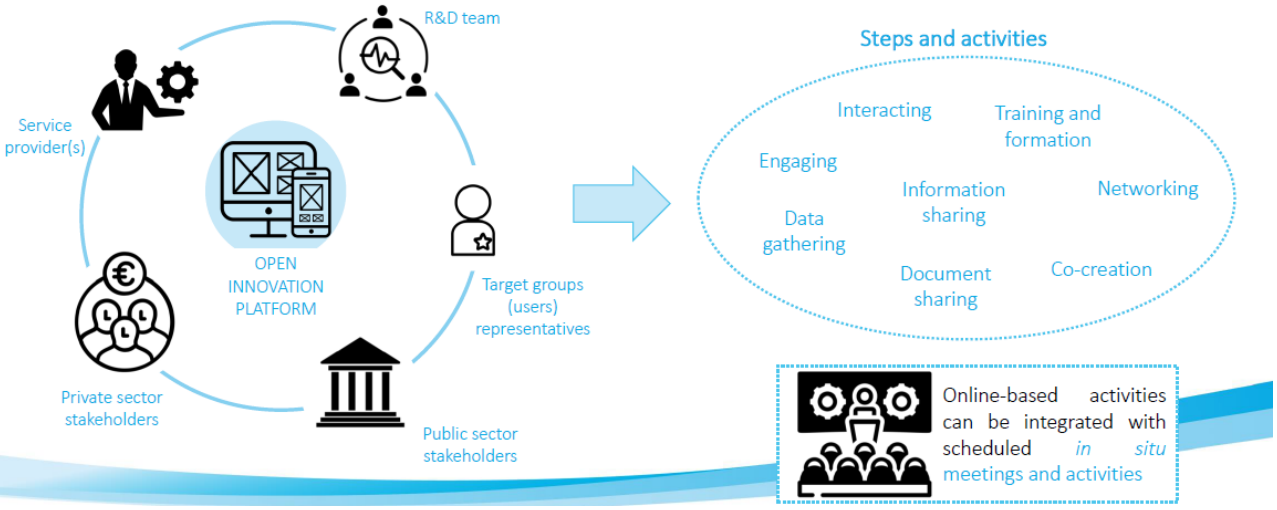
Social media are becoming an increasingly relevant channel for user involvement and organizations are already using them to involve users in innovation process.

The creation and use of ***social communities*** *can help team build engaging relationships among users and with other stakeholders and with the research team, hence enhancing the levels of trust and attitude and, consequently, the project's chance of success. Moreover, it can allow for additional, unstructured data production.*

3. TABLES OF CO-DEVELOPMENT

*ICT could play a **crucial role** in the co-creation process as both **support to collaboration** and to the **development***

Stakeholders are invited to get involved via a open innovation platform. Through a web platform and/or a digital application, **participants can interact with each other and with the R&D team**, hence giving their contribution at *any* stage in the process.



3. TABLES OF CO-DEVELOPMENT

Engaging	Participants recruiting and integration
Data gathering	Users are surveyed in order to update and complete the analysis
Stakeholders training and formation	The results of context analysis, target segmentation and user surveys are presented and a group discussion is conducted; information is eventually updated and integrated.
	Preliminary training sessions and activities on co-creation and the role of technology in tourism are activated and deployed, both online and *in situ*.
Interacting	Participants discuss informally to exchange visions, expectations, beliefs
Information sharing	All stakeholders have access to the information obtained from analysis, surveys and stakeholder groups discussion
Document sharing	All stakeholders have access to documents and form made on specific topics and/or for specific interactions purpose
Co-creation	Participants are involved in co-creation and prototyping activities (which are planned and implemented by facilitators in the R&D team)
Networking	Stakeholders build long-term relationships – both at sectorial and cross-sectoral scope - for collaborative and open innovation purposes

3. TABLES OF CO-DEVELOPMENT

*Within the R&D team, **Living Lab facilitators** are experts in charge of overseeing the Living Lab process, managing the tables and the activities.*

One of the major factor determining the success of a Living Lab is the capacity is the involvement of qualified professionals and researchers to guide and assist the process.

Facilitators' role in the process is crucial as they:

- Help build relationships among participant stakeholders, guiding and supporting networks activities and enhancing trust
- Distribute information among stakeholders and externally
- Develop a work plan and an agenda for the activities
- Guide the table activities in a proactive and enthusiastic manner with an impartial, unbiased approach
- Prepare and manage co-creation activities
- Ensure that discussions among stakeholders are conducted properly, enabling and facilitating interaction among participants, also by creating a comfortable project environment
- Ensure the participation of all stakeholders included in the process
- Prepare summaries and hold stage-gate and final meetings
- Design and implement a conflict management strategy, mediate specific issues and resolve possible conflicts
- Help all participant defining all the features determining the final output(s)
- Reassess the co-development process and its outcomes in collaboration with stakeholders
- Monitor the activities at the various stages of the development process and release ongoing feedbacks
- Perform evaluation and reporting activities

4. CO-CREATION AND PROTOTYPING

*In this phase, **the needs of end users are translated into a concept** for innovative products or services.*

Qualitative research instruments can be used for detecting and analysing potential **end-users' problems** and/or **needs**:

Interviews

A one-to-one method used to explore the beliefs, motivations and needs of individual participants. Depending on the level of pre-configuration of the question structure, interviews can be structured, semi-structured and unstructured.

Focus groups

Participants take part of a group discussion on a particular topic, which is guided, monitored by a facilitator who is also accountable for keeping records of the outcomes.

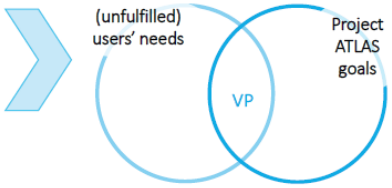
Brainstorming sessions

A group of people is induced to approach a problem using collective intelligence and come up with creative ideas. Such method should address a specific question and proves useful at the very beginning of a project.

Questionnaires

A formalized set of questions on a pertinent topic used to gather information from a large number of people.

Definition of a value proposition that delivers desired benefits to users, solves or reduces their problems and perceivably differentiates from other (competitors') offers

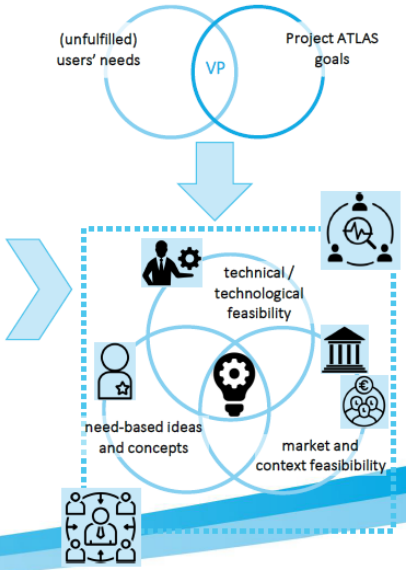


Such tools can be used in other steps of the Living Lab (e.g. during testing for user's feedbacks)

4. CO-CREATION AND PROTOTYPING

Given the value proposition, the idea (concept + design) is co-developed by stakeholders, participants and research team.

Lead user method	This approach involves those that are called "lead users" or experienced users in the innovation process in co-creation groups, in which users are asked to actively participate in the creation and development of an idea for a product/service.
Idea competition	This method ask users and stakeholders to present their innovative ideas to a research team. The ideas presented are discussed and then voted by other participants or by a jury composed of specialists and professionals.
Crowdsourcing	Single users or target representative groups and other stakeholders build an ongoing (and long term) interaction with each other and with the research team, thus allowing for a continuous stream of high quality, detailed information.
Serious games	Video games that include educational and instructive activities and carry knowledge and skills, allowing users and stakeholders to access and generate new, additional information through an engaging life-alike experience.
Partnerships	Long term, consolidated relationships between users, stakeholders and research team. Can be used to update product and services (incremental innovation) previously developed through a collaborative project



4. CO-CREATION AND PROTOTYPING

Prototyping allows to show the features of the developed product/service concept, to evaluate effective appeal and to test it in a realistic environment (use and behavior) before creating the real product/service.

In Living Labs prototypes are designed and evaluated thanks to the know-how brought by the partner stakeholders and in close **collaboration** among all stakeholders and **end users**.

Prototyping is a useful task for two main reasons:

- Ensure the design of the product/service assures and enhance all its features effectively and eventually adjust what have proven to create issues
- Determine if end users are effectively able to fully understand how the product/service work and use it, and improve features that eventually generate a fault in the overall usability

	Low fidelity prototypes	High fidelity prototypes
Features	Include **only key distinctive features** of the actual developed product/service	Are designed to function and look in **as a similar manner as possible to the developed product/service**
PROs	• Time and cost saving • Can stimulate collaboration among users since it does not requires advanced technical knowledge • Allows for early testing and ongoing additional adjustements	• Lead to a better estimate of the all production efforts (resources: time and cost) needed for actual implementation of the product/service • Deliver more reliable and accurate feedbacks from user test
CONs	• User tests become less accurate and effective • Development and testing require the continuous assistance of supporting staff members	• Expensive and time consuming

5. TESTING

*The **public launch of the beta version** of the co-developed product/service allows real-life testing to assess the achievement of the Living Lab objectives.*

The goal of the testing phase is to explore the users' understanding and approach to the product/service developed concept and design and to evaluate the full user experience.

End-users groups are approached as customers: their role is to test the innovative product/service (beta version) in the real context and to give **feedbacks** and **contextual information** about the usage.

In each group and test, the involvement of a critical mass of end-users has to be recruited in order for results to be reliable and significant; typically, end users groups in this phase should be more numerous compared to those involved in previous co-development stages. With respect to this, the role of communication and that of small, tangible and/or intanglible incentives may prove of fundamental importance. Involved consumers have to fully undersand that their role is crucial by taking their feedbacks into account and adapting the innovative product/service accordingly.

The **approach** to the use of the product/service has to be authentic and generate a significant amount of activity; therefore, the role of the research team is, apart from data collection, to stimulate end-user's proactivity throughout the test e.g. by giving them specific tasks and/or creating a stage-gate incentive scheme.

5. TESTING

Some issues and aspects may have a considerable **impact** on testing activities, hence it is fundamental to pay attention to such aspects prior to the test:

Dissemination of preliminary information

Participants may adapt their behaviour according to the information they have and what pieces of it they consider to be important → it is important to deliver clear and univocal information to increase users' trust and ensure a more involved approach and more accurate feedbacks.

Social environment

Social relations among participants may influence the test results, as some may mimic other's behaviour.

Testing design

The way the testing activity is planned and presented may influence the way the participants use the product/service, so researchers and professionals have to build a context wich is as reliable as possible to the real one (location, use settings, time span).

5. TESTING

Resulting information is provided through different data collection methods, such as observations, user reportings, surveys, questionnaires and interviews.

The evaluation is made with respect to various aspects which can relate both to:

User experience

Perceived usefulness

The stated degree to which users valuate benefits and advantages related to the innovative product/service; such valuation is influenced by the *context* (i.e. the benefits and the advantages of the product/service with respect to the specific situation in which it is adopted) and the perceived *ease of use*.

→ Functionality/ies

Perceived ease of use

The stated degree to which users believe that the use of the innovative product/service is effortless and free of issues and difficulties. It may depend both on *endogenous factors* (i.e. those that are intrinsically related to the innovation itself) and *exogenous factors* (i.e. which depends on the context).

→ Design

6. KNOWLEDGE TRANSFER

Transfer activities aim to capture and transmit the Living Lab's outputs and outcomes through networks, i.e. to all potential stakeholders (actors) who did not attend and participate to the Lab, hence **fostering the dissemination of knowledge, competencies and skills.**

Transfer is beneficial to all categories of stakeholders as it can boost their competitiveness also with respect to activities which are not directly related to the ATLAS project.

Typical methods and instruments for knowledge transfer applicable include:

Guidance documents and case studies

Guidance documents containing detailed description of the processes and/or practices that resulted in successful developed innovative products or services. Since it is a written document, it circulates easily.

Knowledge fairs

Specifically planned events aimed at delivering specific high quality information and training regarding the developed innovative products/services. Can include field sessions and/or workshops that discuss in depth a main topic or issue, that are targeted to specific actors/sectors.

Training

Specifically designed training sessions held by experts or professionals (supposedly from the R&D team that was in charge of managing the LL project). Sessions can be delivered either on-site and/or online (recorded online video course or streaming live sessions).

6. KNOWLEDGE TRANSFER

The peer learning approach should also be considered for knowledge transfer.

Peer learning provides for knowledge mutual sharing among professionals from the same business/sector and level and is hence set within the same collaboration culture which Living Labs are based on. Can relate either to the process (open innovation) or to the final product/service delivered.

- Content transferred is immediately exploitable given the business specificity (sector-specific)
- Limited learning costs since no external expert/teacher is involved
- Stakeholders are motivated as it promotes individual engagement
- Strengthened information thanks to the interactive process ("teaching is the best way to learn)
- Free-flowing exchange of knowledge in networks that have been previously built
- Reinforced culture of collaboration
- Supported by online tools that can facilitate long-distance interaction and reduce costs

- Quality evaluation of the content delivered is difficult
- High commitment required from network members
- Peer teachers may have to cope with differences in organizational culture and context specificity, especially if the knowledge delivered relates to the open innovation process rather than the product/service delivered

7. EVALUATION

*A **monitoring and evaluation system** is crucial in order to assess the effectiveness of the living lab's performance and provide an analytical view of the results in term of outputs and outcome.*

The use of specific **indicators** (KPIs) related to project's outputs and outcomes allows for impartial monitoring and evaluation activities during and after the Living Labs.

Output	Outcome
• No. of LLs realized • No. of ideas (concept + design) generated • No. of stakeholders involved • No. of end users involved • No. of test performed • No. of good practices and datasets shared on the ICT collaborative platform • No. of knowledge transfer activities and sessions performed on site / online	• No. of collaborative projects started/developed among network members (partnerships) • Commercialization rate: no. of ideas which resulted in product/service implementation (spin-offs) • Revenue increase (%) for stakeholders • Increase in the appeal of destinations involved • No. of projects implemented by stakeholders independently involving applied technology in cultural tourism • No. of sustainable job places created • No. of activities related to cultural tourism integrated (destination-level) • User's satisfaction with respect to the overall experience