ChIMERA

Innovative cultural and creative clusters in MED area

P.A. 1: Promoting Mediterranean innovation capacity to develop smart and sustainable growth

Obj. 1.1: To increase transnational activity of innovative clusters and networks of key sectors of the MED area

https://chimera.interreg-med.eu/

4.5 Living Labs – Methodology

WP 4.5. Pilot 4 - living labs

Creative Apulia Cluster Association/PP2

In cooperation with:

Autonomous Region Friuli Venezia Giulia/LP

Basilicata Region/ PP1

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What are Living Labs

- ✓ Living Labs (LLs) are defined as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings.
- ✓ LLs are both practice-driven organisations that facilitate and foster open, collaborative innovation, as well as real-life environments or arenas where both open innovation and user innovation processes can be studied and subject to experiments and where new solutions are developed.
- ✓ LLs operate as intermediaries among citizens, research organisations, companied,cities and regions for joint value co-creation, rapid prototyping or validation to scale up innovation and businesses. **LLs have common elements but multiple different implementations. During the development, the Lead of the LL community, will identify the element to be used in the different steps.**

Catching the fire of Creativity: main purposes

- promote the evolution of Regional public administration and civil society from passive consumers to **active prosumers** of content and services of general interest, supported by ICT innovation.
- create domain-specific **open innovation** environments within **real-life conditions**, in which the active involvement of local end-users and ICT SMEs can pave the way to the **co-design** of new services, products and social infrastructures.

Major Players

- ▪ Users - Socio-economic and no profit Associations

- Public bodies
- Academia -Research Laboratories
- Enterprises

How it works

The living lab process is based on a maturity spiral concurrently involving a multidisciplinary team in the following four main activities:

- **Exploration:** engage all stakeholders, especially user communities, at the earlier stage of the co-creation process for discovering **emerging scenarios**, usages and behaviors through live scenarios in real or virtual environments.
- **Co-creation:** bring together technology push and application pull (i.e. crowd sourcing, crowd casting) into a diversity of views, constraints and knowledge sharing that sustains the ideation of **new scenarios**, concepts and related artifacts.
- **Experimentation:** implement the proper level of technological artifacts to **experience live scenarios** with a large number of users while collecting data which will be analyzed in their context during the evaluation activity.
- **Evaluation:** assess new ideas and innovative concepts as well as related technological artefacts **in real life situations**; make observations on the potentiality of a viral adoption of new concepts and related technological artifacts through a confrontation with users' value models.

Strategic goal: developing the imaginative potential of the scenario closest to the target needs and turn needs into services.

How to implement Living Labs in a given context

A premise: the results that will be implemented, from the application of this approach, will differ drastically due to the fact that every Living Labs will have to take its local context into account and thus no two Living Labs will be the same.

Key components:

1- User Involvement

User involvement is one of the key elements of a Living Lab.

Users are important to define context-aware services, think for example of cultural differences.

Organizational issues include questions like:

- ✓ *How to organize user involvement? How to find the right users? What about the validity? How to motivate the users?*

From a technological point of view:

- ✓ *How to get access to large user groups? How to analyze large amounts of data?*

2 - Service Creation (the main topic of LL)

Service creation is the core of the Living Lab: it describes the value added components that Living Labs can bring to innovation and validation. 'Value-added' implies **we are 'bringing something new and needed to the table'.**

Considering the results of the action plan of wp 3.5 of ChIMERA project, we can focus on three underlying **categories of required services to develop**:

- services supporting collaborative innovation,
- services supporting validation and demonstration,
- services specific to stakeholder requirements.

On a more **operational level** of Living Labs, three types of horizontal services structure the service matrix:

- ✓ **technical services** – communication, collaboration, demonstration, prototyping, validation, product deployment etc.,
- ✓ **customer services** – innovation, idea generation, community services, training, specific service needs, business support, market customization, and thirdly,
- ✓ **intra-network services** – governance, management and training.

3 - Governance and infrastructure of the service creation

The governance structure of a Living Lab describes the way it is organized and managed at different levels. We need to define :

- The **strategic level** deals with *Living Lab development, consortium dynamics, the definition and adjustment of the agenda the way stakeholders are involved, exploitation of results are dealt with;*
- The **operational level** includes aspects like: *working practices for the day to day management; execution,*
- The **monitoring process** *: quality and progress monitoring, internal communication; the way new software and services are introduced and validated, responsibilities and liabilities; the definition of user group/ awareness of being part of Living Lab*
- The **dissemination process** and external communication*: national and international consolidation; the way projects are organized and funded.*

The **infrastructure** will be chosen depending on the environment in which the Living Lab is to be deployed and the objectives which are to be achieved : it is the underlying framework or features required for the operation of a Living Lab.

4 - Innovation Outcomes

One of the major factors to reach this goal is the involvement of :

- ✓ **qualified personnel to guide** and assist the innovation process
- ✓ **stakeholders in the innovation chain**, specifically in the area of user centricity and user knowledge.

<p align="center">Living Labs in ChIMERA project</p>

The strategic goals of the Living Lab in Ch.IMERA project are

- ✦ **to support the development of creative-digital-inclusive communities and CCI clusters promoting the reciprocal interaction in an open innovation environment**
- ✦ to co-create, develop, validate, test creative solutions (idea, or services, contents, tools, platforms, etc.) able **to turn needs, challanges and actions** identified through the SWOT analysis, the Local Action Plans and other activities of wp3 **into contents\services\tools\platform** consistent with the Regional Smart Specialization
- ✦ to build up cooperation network for skills exchange and knowledge integration.

The **process can be seen as a spiral in which the focus and shape of the design becomes clearer**, while the attention of the evaluation broadens from a focus on concepts and usability aspects to a holistic view on the use of the system.

PHASES	ACTIONS
Bootcamp: Planning and concept design	Appreciating opportunities
	Data collection process
Design Workshop: Prototype design cycle	Appreciate opportunities
	Design

	Evaluate
Innovation Camp: Innovation design cycle	Appreciate opportunities
	Design
	Evaluate
Final phase	Memorandum of understanding

1 - BOOTCAMP Planning - Concept design

This phase will be led trough a bootcamp to launch the living lab. The aims are:

- to introduce the needs, challanges and actions identified in the Swot Analysis and action plan of each partner (wp 3.5)
- to choose the need and action to develop thourgh the innovation process of the living lab
- to design and validate the concept of the innovation process

- ✓ It is suggested to manage this phase with the **support of qualified personnel** to engage quadruple elix actors
- ✓ It is important to engage actors starting by the ChIMERA Regional Workgroup and involving CCIs, Tech Park, Universities, End Users, civil society, schools etc.
- ✓ In this phase is it important to **gain as much information** as possible about the underlying circumstances for the project.
- ✓ It is important to **mix different competencies** to stimulate knowledge sharing and an increased understanding of the involved stakeholders' visions.

This process can be difficult to accomplish since project participants usually want to make contributions to many diverse areas, hence making it hard to decide what to include and what to exclude. Thus, it is important **to support and build trust and confidence** between the stakeholders.

It is suggested to manage the bootcamp following this scheme choosing and adapting the questions to the local context

ACTIONS	OBJECTS	QUESTIONS	METHODOLOGY
	define the scope for the process	*how the users can influence the process*	

Appreciating opportunities	the target-use group and their important characteristics	*how sustainability take form in this project,*	
	the target-user group and their important characteristics	*how openness should take form*	
	the needs that motivate the users to choose the most important to develop in the innovation process, what triggers their motivation	*how the process should be designed to capture as realistic situation as possible*	
Data collection process	the users' expressions should be analysed	*which user expressions are most relevant?*	Use methods and tools to support the creative process of creating new concept ideas Future Workshops, Brainstorming, Experience Prototyping, Innovation by Boundary Shifting, or other informal techniques to remove fixations
	needs should be selected, generated and translated into living lab concept		
	the focus for the work shifts from generating need to designing concepts	*on what level should the concept be described to illustrateand transfer users needs?*	Use methods and tools Scenarios, Mock-Ups, Storyboards, Films, Visual Narratives
	the basic objective of the innovation must be detailed to look beyond the immediate vision that comes to mind and to do that with the users' expressions in focus		

When these questions have been handled and discussed the Prototype Design Cycle can be launched.

2- DESIGN WORKSHOP Prototype Design Cycle

This step is managed **with the support of qualified personnel to guide and assist the innovation process and to engage quadruple elix actors.**

A design-workshop will be organized:

- to launch the process
- to define the agenda of the cycle

In this cycle, the design of the innovation broadens to include basic functions, workflows, and interfaces.

During this process it is important to consider:

- *how value can be created for the users,*
- *how the users can influence the process and the innovation,*
- *how sustainability take form in this cycle,*
- *how the process should be designed to capture as realistic situation as possible.*
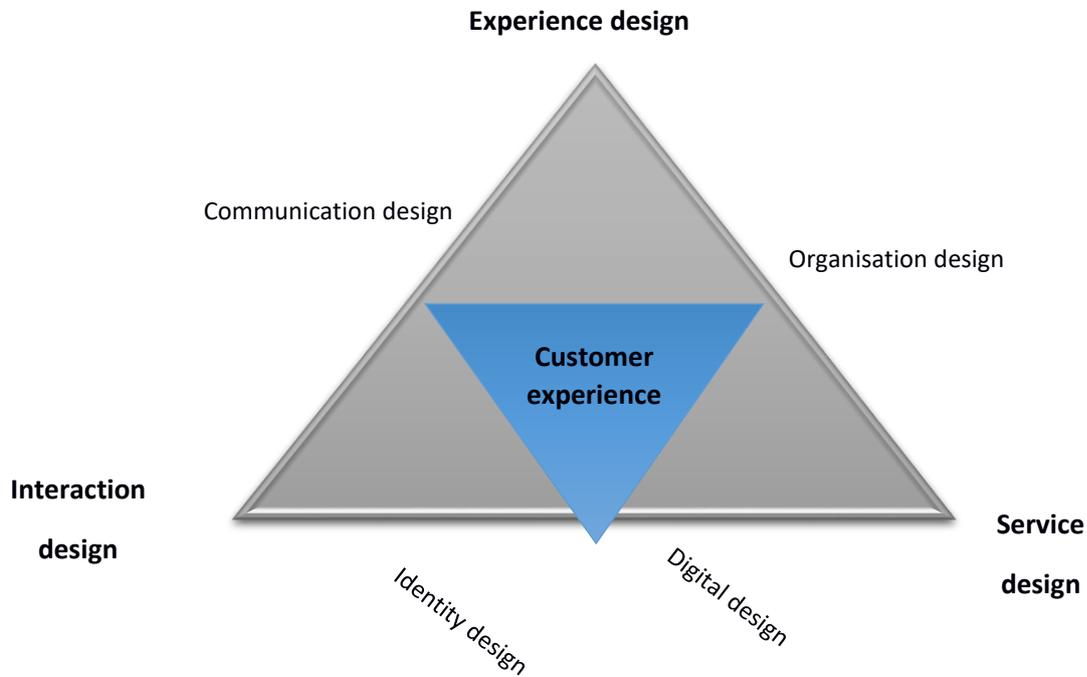
The prototype needs to be detailed enough for the users to understand and be able to experience how the final service\content\tool will look and feel.

This leads to the evaluation that is centred on usability aspects:

• *how easy it is to learn*

• *how effective and enjoyable it is to use*

Hence, the evaluation is focused on **INTERACTION between the user and the service.** It is not limited to the user interface, even though this plays an important role in how the user experiences the interaction. We propose to follow this model and the subsequent scheme choosing and adapting the questions to the local context

Experience design

Communication design

Organisation design

Customer experience

Interaction design

Service design

Identity design

Digital design

ACTIONS	OBJECTS	QUESTIONS	METHODOLOGY
Appreciating opportunities	to find the basis for the design of the systems interface, and its functionality.	*What is the purpose of the prototype? What situation does it aim to contribute to?*	
		In which physical, social, technical and organisational context is it going to be implemented?	
	to collect sufficient, relevant, and proper data so that stable requirements can be produced	*Decide which data-collection methods to use*	
		Which needs does the users have IN the system?	
		How are the Key Principles adressed in this phase?	

Prototype design	to move from concepts (or low-fidelity prototypes) to high-fidelity prototypes with a focus on users identified needs	*What is the overall purpose of the innovation to be designed?*	Discuss the user requirements that have been identified and presented in the former process. Clearly express the underlying values important to consider in the design
		Which hardware should the innovation be designed for? (e.g. mobile phone, PC, surf pads, or other gadgets)	Document and design the prototypes. Decide on what level the prototypes must be described to express the feeling you want to mediate.
	to look beyond the immediate vision that comes to mind	*How are the Key Principles adressed in this phase?*	Constantly go through the design to make sure that the user needs, values and requirements have been considered. Iterate in the process to make the design more and more focused and detailed.
Usability Evaluation	to encourage users to express their thoughts and attitudes towards the innovation being developed	*What is the purpose of the evaluation? (e.g. Navigation issues, user satisfaction, graphical design, efficiency, utility, learnability?)*	
		Which evaluation method should be used? (e.g. think aloud, usability evaluation, field study, logging, cognitive walkthrough, focus-groups)	
		Who is the typical user?	The analysis of the data from the evaluation should emphasis what went wrong as well as what needs to be changed and modified in the next iteration.

		Does the design answer to user needs, values and requirements which the prototype has been designed for?	
		How can it be redesigned to better fulfil the needs?	
		How are the Key Principles adressed in this phase?	Present the findings from the evaluation in an evaluation report including users' comments and design suggestions.

3- INNOVATION CAMP Innovation Design Cycle

This step is managed **with the support of qualified personnel to guide and assist the innovation process and to engage quadruple elix actors.**

An innovation-camp will be organized following these suggestions:

- ✓ The cycle starts by analysing the results from the usability evaluation in order to generate changes in the needs of and in the innovation.
- ✓ Small changes and adjustments in the needs are quite common, especially in relation to the needs in the innovation, as it develops and users' understanding of structure, content, workflow, and interface deepens.
- ✓ Based on these, changes in the design of the innovation also take place, as well as general development work to finalise the innovation as a whole.

During this process it is important to keep in mind:

- how value can be created for the users,
- how the users can influence the process and the innovation, considering that the succesful of innovation and technology is mould by reality
- how sustainability take form in this cycle,
- how openness should take form
- how the process should be designed to capture as realistic situation as possible.

ACTIONS	OBJECTS	QUESTIONS	METHODOLOGY
Appreciating opportunities	to gain insights into what needs users might have both of and in the innovation.	*How does the innovation answer to user needs, values and requirements* *which the innovation has been designed for?* *Which improvements* *are needed to better fulfil the needs?*	Questions regarding both utility and usability issues needs to be formulated and asked to the users
Innovation design	to move from a high-fidelity prototype with a focus on users identified needs to a innovation		to include both business model aspects as well as designing a fully functioning innovation.
	to re-design the innovation according to feedback gained in earlier phases.		
User Experience Evaluation	to encourage users to express their thoughts and attitudes towards the design.	*What is the purpose of the evaluation? What to you want to achieve?* *How can we encourage and stimulate users to use the innovation during the test period?*	Develop a "test-storyline" to support the users in their test showing what is expected from them: ✓ Activities they must do, for example, number of surveys, typical tasks, ✓ use of certain functionality, etc.

			✓ Activities they can expect from us ✓ Frequency of use ✓ Test-period, for how long will the test pro-long. Time required from them
		Create questions or other material for the evaluation focusing on what should be.	The analysis of the data from the evaluation should emphasis what went wrong as well as what needs to (or must) be changed and modified in the next iteration.
		Develop questions on the basis of the users identified user needs, values and *requirements in the system and relate them to experiences.*	

Present the findings in an evaluation report including users' comments and design suggestions. The challenge is to evaluate users' actual experience of the final version of the innovation.

USE EXPERIENCE MODEL
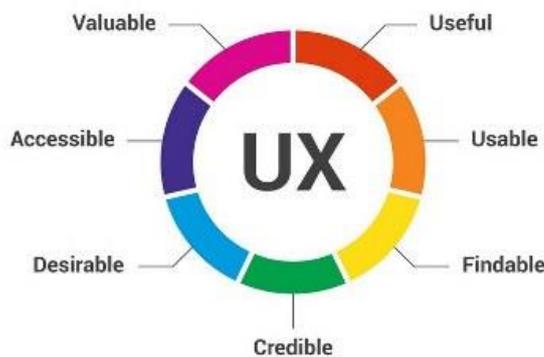
At the end of the process, **a call for a contest of idea** to select an external service for the application of the developed innovation model and the launch of the new product or service with the purpose to make it useable, **could be published**.

4 – FINAL PHASE Memorandum of understanding

A memorandum of understanding will be undersigned among the stakeholders engaged into the community of Living Lab to continue and to strengthen the process of innovation founded on the principles and the methodology of the living lab with the purpose of **developing creative-digital-inclusive communities and CCI clusters promoting the reciprocal interaction in an open innovation environment.**

Virtual community of living labs established by P1/P2 to share innovation projects development inside the network, to open the cooperation

- a virtual community of the Living Lab implemented by each partner will be established through digital tools:

- the web site of ChIMERA project,
- Linkedin, Facebbok and goggle group

- ✓ The partners will share all the results, reached in every phase of implementation of the living lab, with the virtual community
- ✓ All the stakeholder involved in Living Lab by each partners will be invited to partecipate at the virtual community to open cooperation and promote reciprocal interaction
- ✓ A Lead of the virtual community will be choosen, he will liven up the community:
  - proposing topic to discuss,
  - making analysis and comparisons among the results reached by each partner,
  - promoting interaction and exchange of idea, model, skills ecc.