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LIVERUR

Living Lab Research Concept in Rural Areas

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EXECUTIVE SUMMARY

The first “Knowledge Transfer Session” of the LIVERUR project was celebrated the 12.02.2020 in Brussels in the facilities of the Research Executive Agency while the second was divided in a series of 3 online webinars, celebrated on the 21.07.2021, the 23.07.2021 and the 08.09.2021.

The main objective of the “Knowledge Transfer Sessions” in addition to the dissemination and exploitation specific actions, was to share the knowledge, experience and best practices obtained during the implementation of the project between the partners of the LIVERUR project and selected key stakeholders from the European Commission and the projects’ own piloting zones.

Therefore, LIVERUR organised a total of two “Knowledge Transfer Sessions”, consisting of roundtable presentations and discussions; one before and one after implementing the LIVERUR RAIN concept (Regional circular living lab business model) in the project’s piloting regions in order to collect and analyse partners’ and rural Living Lab-users’ feedback and share it with the stakeholders and policymakers at EU level.

As methodology of the first meeting the form of structured roundtables with an introductory keynote speech to three selected topics was chosen. The moderator of each roundtable was appointed due to his/her experience and role within the LIVERUR project’s framework. The moderator made sure that an open discussion was achieved and that the participants could exchange their point of view about the topics most relevant for implementing the RAIN concept in their pilot region. The topics of the roundtables were:

- 1. CIRCULARITY AND RURAL LIVING LAB CONCEPT**
- 2. RURAL DEVELOPMENT AND BUSINESS MODELLING**
- 3. SOCIAL, ENVIRONMENTAL AND ECONOMIC IMPACT PATHWAYS OF LIVERUR**

As methodology of the second meeting the form of structured roundtables was maintained with a three different themes. However, due to the nature of it being online, there was no keynote speech to introduce the topics but rather more space for discussion of the participants. The moderator of each roundtable was appointed due to his/her experience and role within the LIVERUR project's framework. The topics of the second "Knowledge Transfer Session" roundtables were:

1. EXPERIENCE OF THE LIVERUR PILOT REGIONS

https://www.youtube.com/watch?v=jkLE2GZL4L0&ab_channel=CommunicationLIVERUR

2. DIGITALISATION OF RURAL AREAS

https://www.youtube.com/watch?v=rhvbg5_pxlQ&t=2901s&ab_channel=CommunicationLIVERUR

3. PRESENTATION OF THE MAIN OUTPUTS OF LIVERUR

https://www.youtube.com/watch?v=hOkIa92IEEU&t=3422s&ab_channel=CommunicationLIVERUR

RESULTS, FINDINGS AND CONCLUSIONS

The first "Knowledge Transfer Session" within the LIVERUR project has reached its objectives thanks to the involvement of partners of the consortium, especially the piloting partners by giving the opportunity to the pilots to present their Living Labs to relevant stakeholders and express the key issues of social impact regarding their "real life settings" as well as by including a range of stakeholders who brought an external vision of the main thematic of the project. The inclusion of the pilot region representatives has turned the event into a workspace which was highly appreciated.

Furthermore, by disseminating the methodology and the first outcomes of LIVERUR project to policy makers and getting their feedback to keep on working in views of transferring the knowledge acquired on a territorial basis followed a bottom-up approach which is essential in the Living Lab Methodology. Close interconnection between the pilots and EC policies should be pursued during and after LIVERUR project, supporting pilots in the key partnerships and answers to their specific challenges that will guarantee the sustainability of the rural LL business model and its impact on a larger scale.

The second part of the "Knowledge Transfer Sessions", has reached its objective in transferring its outputs and best practice cases to our stakeholders through practical examples and showcasing the work done within the project. This was also achieved thanks to the involvement of other EU funded projects and external initiatives who work as well with Living Labs, rural business models or digitalisation of rural areas and showed on the one hand the real-life replicability of the LIVERUR RAIN concept and its tools as well as the complementarity with existing research and innovation concepts and the long-term vision for rural areas of the European Commission.



INTRODUCTION

In order to increase the impact of the LIVERUR project, it is crucial to test the feasibility and replicate the mechanism into other rural and non-rural contexts and therefore, it is essential to share LIVERUR's knowledge and best practices.

The format chosen to transfer its experiences, in addition to the dissemination and exploitation specific actions, was to organise two “Knowledge Transfer Sessions” of roundtables; one before and one after implementing the LIVERUR RAIN concept in the projects’ piloting regions in order to collect and analyse partners’ and rural Living Lab-users’ feedback and share it with the stakeholders and policymakers at EU level.

Following the timeline of the outcomes of the project, the first knowledge session was organised in Brussels on the 12th of February 2020 and the second one between July and September 2021. The events, organised by the consortium of LIVERUR, counted with the participation of the 12 of the pilot regions from the project and with the support of the European Commission (principally the Directorate of Agriculture) and the Research Executive Agency (REA).

This report presents the methodology used during both sessions as well as the main outcomes and conclusions collected.

OBJECTIVES

For the first roundtable the objective was to have an open dialogue on the LIVERUR project about the New Rural Businesses Models and a critical review on the operational capacity of the Living Labs and of the piloting implementation in order to make improvements in the second half of the project. For the preparation of the event preliminary insights for modernising small – medium rural businesses through the creation of public-private-people partnerships have been collected and disseminated among all participants.

For the second roundtable the impact assessment report results and the feasibility of the model to other contexts were discussed and showcased by the experience exchange from LIVERUR pilots and external Living Lab initiative already exploiting the main outcomes of the project. Furthermore, policy advice such as the need for better digitalisation and capacity building in rural areas have been discussed between LIVERUR and relevant stakeholders including the EC services.

For the preparation of the event preliminary insights for modernising small – medium rural businesses through the creation of public-private-people partnerships have been collected and disseminated among all participants.

Preliminary key insights:

- Combining Living Lab and Circular Economy approaches in rural regions unlocks regional development potentials and goes beyond traditional business model conceptualisation.
- Public-private people partnerships can contribute to a socio-technical regime change towards a green economy.
- The RAIN concept provides a tool to exploit regional development potentials in a viable, integrative, inclusive and sustainable manner.
- Challenges for socially inclusive and economically viable rural businesses include not only the production of goods and services but also the creation of integrated approaches for coordination of services across different sectors (e.g. digital platforms), alternative models to deliver services (e-health, e-mobility) and organisational rearrangements (e.g. empowering intermediaries).

Landscape of existing rural business models and what can be learned from them

In the framework of the rural business landscape, LIVERUR identified diverse innovative trends, answering to rural issues and opening the way to new business models:

- 1) Quality of food is the dominant trend, driven by brand value, regulations and expectations of customers.
- 2) Developing excellence including product and service design as well as understanding user value are key issues to be competitive.
- 3) Services, both as social and business support, are gaining importance and show the great dynamic of rural areas in development of services.
- 4) Local energy production and use are on the agenda, especially in connection with transition to circular economy.
- 5) Agrifood value chains are increasingly supported by digital technologies, including automated machinery and e-services. Nevertheless, it seems that big challenges still have to be faced to move towards new business models that are both socially inclusive and economically viable.

The potential of Living Labs for regional development of rural businesses

Living Labs in rural areas (RLL) can contribute to creating a springboard for the diversification of local economies and to create spaces for new innovative services and products. However, the role that RLL, especially in rural areas, can play in transformative change processes of different regions,



which aims at establishing circular approaches or increasing the sustainability of existing processes, remains underdeveloped.

LIVERUR analysis in the first half of the project cycle has shown that RLL have a potential for bottom-up experimentation, the establishment of temporary innovation systems as well as construction of transformative change pathways. In connection with regional development approaches focused on circular economy, digital technologies and sustainability, Rural Living Labs will be able to establish public-private people partnerships that contribute to achieving the goals set out in the Green New Deal by the EC.

Developing a Regional Circular Living Lab business model (RAIN)

The LIVERUR project has shown that taking the approach of Circular Rural Living Labs seriously meant transcending traditional perceptions of SME business models and integrating them into a more holistic perspective. Therefore, the RAIN Concept supported an integrative, holistic and inclusive way of thinking in the course of developing a project or an activity, adding regional development, sustainability and open innovation perspectives to standard business model concepts. It assists in developing a business that integrates all concepts promoted by LIVERUR: business models, rural Circular Economy and Living Lab approach.

The RAIN concept provides a crucial instrument to link small-medium businesses with public-private-people partnerships, creating social, economic and environmental impacts through embedding them in an open-innovation framework that works towards green transition.

ID cards have been edited and distributed during the knowledge session to the participants to give an overview on the implementation of the RAIN model - the main task for the remaining part of the project – in the 12 pilot regions of LIVERUR¹.

1 See annex 2

1 METHODOLOGY

Overall objectives of the first knowledge transfer session:

- Provide the pilot zones representatives with a deeper understanding of the circular economy concept and model, in order to be able to identify the main stakeholders in their region and successfully design / develop the Circular Living Labs.
- Provide the pilot zones representatives with practical knowledge and case studies on new and innovative business models in rural areas.
- Highlight the importance of the social aspect in rural areas and come up with a common pathway for its promotion and enhancement.

The methodology of this knowledge transfer session was decided to be open to discussions between the stakeholders and the partners from LIVERUR, especially the piloting partners.

Three roundtables were organised based on the main pillars of LIVERUR project:

- 1. Roundtable 1: Circularity and rural living Lab concept**
- 2. Roundtable 2. Rural development and business modelling**
- 3. Roundtable 3. Social, environmental and economic impact pathways of LIVERUR**

The basic structure of the roundtables was composed by a keynote speech (2 external speakers and one LIVERUR partner) introducing the topic from an EU point of view. These introductory speeches were followed by a structured discussion between the members of the roundtable, previously structured between the participants and the moderator of each roundtable.

The participants of the roundtables were chosen based on their expertise on the topic and in case of the pilot partners, according to the progress of the development and good practices of their areas in terms of rural Living Lab.

The stakeholders invited to this event were both:

- Stakeholders from EU institutions, mostly from the European Commission
- Stakeholders from the LIVERUR Piloting regions

Finally, a questionnaire to collect the feedback from the participants of the consortium was distributed in order to get the participants' inputs on the session and their main conclusions.

The following sections will present in detail the composition of each roundtable and the main outcomes are highlighted.

I. 1 Circularity and rural Living Lab concept (Roundtable 1)

I.1.1 Composition and objectives of the Roundtable 1

a) Composition

KEYNOTE SPEECH: Pavel Misiga, Head of Unit Circular and bio-based systems at DG Research & Innovation, European Commission

ROUNDTABLE:

- Eric Seulliet, La Fabrique du Futur, Member of The European Network of Living Labs (ENoLL) and LIVERUR Advisory Board - France
- Association Dar Margoum Ouedhref LIVERUR Pilot – Tunisia, represented by Tunde Kallai
- Paolo Burini, Unione dei Comuni del Trasimeno (UCT) LIVERUR Pilot – Italy

MODERATOR:

Tunde Kallai, TR Associates (TRA) – Malta

b) Objectives

The main objectives of this roundtable were:

- to point out the importance of circularity in future rural business models,
- to identify the stakeholders in the main circular circles such as materials, technologies and social circles as “Cradle to Cradle” model,
- to share vision and assess the coherence of the “Circular rural living lab concept” between European policy and LIVERUR stakeholders,
- to the clarification of the concepts related to our project,
- to the implementation of the ideas on the pilot area,
- to understand how much pilot zones issues and challenge match with EU policies and perspectives,
- to create links and crosscutting issues among the different pilots’ areas,
- to share common/European perspectives and challenges for rural areas

I.1.2 Main outcomes in terms of knowledge transferred

KEYNOTE SPEECH: Circular Economy, Pavel Misiga, Circular Economy and Bio-based Systems Unit, Healthy planet Directorate, Directorate General of Research and Innovation, European Commission

Pavel Misiga led teams working on Sustainable Production and Consumption, Resource Efficiency, Circular Economy and Water policies for a decade. Before joining the European Commission, he gained environmental policy experience in various subject areas.

In his presentation Mr Misiga focused on the detailed presentation of the Circular Economy Conceptual model, which was developed and published by Ellen MacArthur Foundation (2012). He analysed the Biological and Technical cycles.

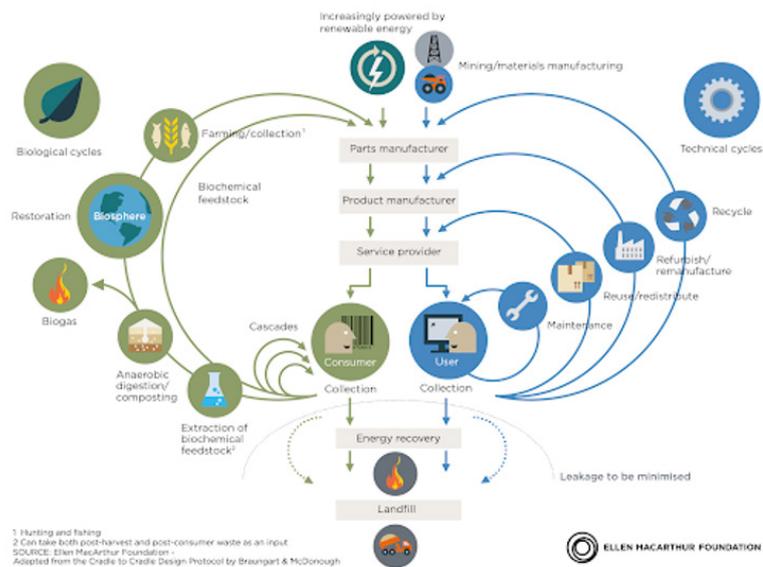


Figure 1 - CE Conceptual model by Ellen MacArthur Foundation

In his presentation showcased examples from traditional industries as well as from rural economies.

Mr Misiga stated that at first the European Commission recognized the circular economy as a key transition pathway to carbon neutrality and sustainability through the Circular Economy Action Plan, Circular Economy Stakeholders Platform and also the new EC initiative, since November 2019, the European Green Deal. The relevance of the circular economy within the European Commission in the last five years has increased by the mentioned initiatives and policies. The European Commission has decided to work on this topic horizontally, from not only an environmental point of view, but also economic and social ones. Mr. Misiga pointed out that the circular economy must deliver on both economic and environmental premises and reduce environmental impacts from production and consumption processes.

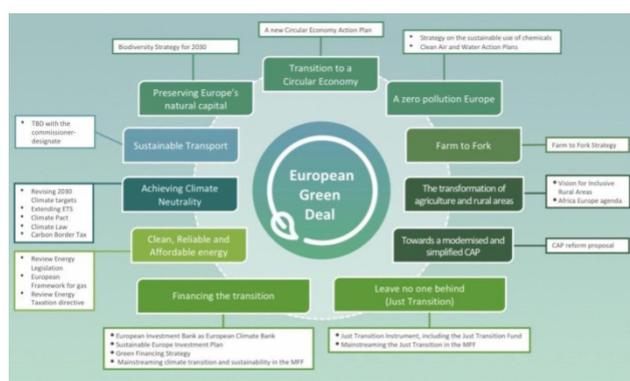


Figure 2 - The European Green Deal Model (Source: COM, 2019)

Taking into account the EC conceptual model and the new European Green Deal Model, Mr. Misiga described the appropriateness of the regional and rural scale for the circular economy for certain products or sectors, and used few examples about the biomass production and biodegradable packaging materials.

The transformation process presents a challenge to all actors in the rural areas and LIVERUR could play an important role in the acceleration of the need and the transition from linear to circular rural economies through systemic solutions. This implies relying not only on technological innovations, but combining them with new business models, governance, and social innovation. That would be the space and main roles for Circular Rural Living Labs through the LIVERUR project as well, as he pointed out.

The keynote speech enhanced also different aspects of the circular economy:

- Circular Bio economy and bio based systems limit,
- Global environmental changes: Green Deal,
- The fact that our economy is highly intensive and geometrical,
- The benefits of the circular economy for all the stakeholders and the importance to communicate on its benefits

In the future Horizon Europe Programme, some specific measures will target:

- the support R&D on circular economy,
- the contribution to the Green Deal,
- the urban and rural regions: invite innovation actors together with industry and authorities to develop projects that will demonstrate value chain at value chain,
- the promotion of the circular economy industrial hubs,
- the innovation projects in new governance projects in social innovation

ROUNDTABLE

Key concepts in terms of circular economy and rural Living Labs:

a) Circular economy models and life cycle assessment for value chain

The original concept of the Ellen MacArthur Foundation, 2012/2013 gave the first approach about the Circular Economy model.

This model is used today as a reference model by researchers, policymakers, and industrial players from any level of the industry. In the last 7/8 years the concept became a revolutionary solution in the radical transformation of societies and industries worldwide. We realized through our LIVERUR project partners & experts in social innovation and social enterprise models, that a crucial element is missing from the interlinked Material & Technology (Cradle to Cradle) Circles in the mentioned Circular Economy model. This is the Social Circle as a significant context of LIVERUR project in the targeted peri-urban and rural areas. The Socio-Economic and Technology aspects complete the Environmental and Nature-based complex shift to circularity from the linear practices.

Circular economy models of profit based work only for a few sectors and businesses.

- social threats through the circular economy concept, what consumers want,
- Absolut need for collaboration. Need to have a research project, not only about technology,
- Social aspect is present from the beginning,
- Transversal concern about co-creation, collective intelligence, open innovation. Bring together. Communicate together, the mindset of LL,
- Potential to change from linear to circular who are the actors,
- Biomass based on certain types of products,

- Potential element about the packaging, reused many times and going back. True circular economy elements in those projects and promote them.

Lack of the social cycle in the CE Conceptual Model. Do we have to add it to the purely biological and technological approach, where the customers play a crucial role in the definition of market, demand and many other impacts?

The lack of sustainable life cycle assessment in rural areas is an issue that has to be tackled. The EU is promoting product and environmental footprint. Even if it seems hard to calculate, it could help that everybody in the value chain adds only his contribution. Information on life cycle will be built in the value chain. The life cycle would be easier for every actor, rural SMEs, how we can help them to build these competencies they need to help these value chains.

Regarding the lack of social circle in the EC reference model, Mr. Misiga highlighted that we must add the social circle as a 3rd layer to the CE model. At same time we must also note that the lack of economic benefits prevents the circular economy from happening. As such, there is no coordinated supply and demand yet for secondary materials and circular products. A key point consists in enhancing collaboration along a value chain, upstream and downstream. However, in reality, these actors either compete or they do not interact on the market.

Necessity of Life Cycle Sustainable Assessment in rural context as well and the strong interactions among the stakeholders.

This collaboration can be best established at regional or local scale because local and regional authorities can play a very important role in launching new market interactions, like through the European Green Deal.

Main messages of the Circular Economy Action Plan and European Green Deal for the regional governments and authorities, intermediary organisations and for rural communities

- Value chain as a key factor: once the value is created, how this value can be shared among the variety of actors and in an equitable manner,
- Importance of the intra-value chain collaborations and the quality of the value,
- Changing social norms are not easy and cannot be the main objective,
- There are many levels of circularity. What is important to keep in mind: how do we provide economic opportunity. It is not about painting the economic activity in green. The value has to be kept into the economy, reducing the needs for primary material.

Keywords related to the aforementioned discussions: Reference model of Circular Economy, Programming, allocated budget for the bio-economy etc. based innovation, motivation for the more sustainable production

b) Involving the stakeholders

Key questions:

- How the thematic networks, alliances and intermediary organizations (such as France Living Lab Network & EnoLL) can bring the main actors closer together (governments, private sector and research/ HES and citizen to build replicable circular rural models in terms of innovative production, platform based consumption and shared economy -type business models?
- What are the main social aspects of the more sustainable circular rural economies?
- How the key technologies (like IoT, Big Data, Blockchain, etc.) can improve the rural economies?

Mr Seulliet, as LAB member, is informed deeply about the progress and the user driven Living Lab approach of LIVERUR. Also about the regular interaction with stakeholders in each WPs. His main intervention was about the difficulty to mobilize co-creating users over time: due to a lack of motivation to contribute, difficulty in capitalizing on contributions. The outcomes of traditional co-creation processes are therefore often limited in scope. The key technologies (IoT, Big Data, AR/VR, robotics, Blockchain) could help the complexity and economic benefit of smart applications in rural economies. The use of blockchain for example is one way to overcome these limitations and scale up. By allowing contributors to be recognized or even remunerated, the blockchain produces a “nudge” effect thanks to the climate of trust it creates. Thanks to the traceability and capitalization of contributions, the blockchain also makes it possible to make the most of them by promoting their recombination. Finally, blockchain allows new approaches to intellectual property to be unleashed and new types of organizations (DAO) based on sharing to emerge, that would help the Circular Rural Living Labs to interact locally and to create cross-border alliances or clusters.

Keywords related to the aforementioned discussions: Blockchain, Nudge, Trust, DAO, Collective Intelligence Motivation, Engagement, social dialogues, social responsibilities, Consumer interactions. Potential of the ICT technologies: big data, to use the internet of things, following the traceability of the food chain,

- There is a need for a platform to exchange the data but also some physical spaces so the people get to know each other, on a face-to-face basis. The interoperability has to be a focus point in this LL aspect,
- Once you have this platform you have to make traceability of data, in this sense blockchain methodology can be useful,
- Big barrier the data space. Build this platform and link it to other platforms to get to this operability

c) Synergies of LIVERUR with the European Green Deal

- LIVERUR project shows strong synergy to the European Green Deal initiative through interlinked dialogues between actors & intermediaries & stakeholders, how to shift linear to circular economy into the rural economies through the adaptation of the circular rural living labs, how Open Innovation can improve the market-ready products and processes to be more competitive by taking into account all environmental, socio-economic negative impacts in the targeted regions?

- What will be the positive impacts of LIVERUR to the pilot regions: to local craft women in Pilot region in Tunisia and farmers/ entrepreneurs in fisheries & eco-tourism in Pilot in Trasimeno, in Italy? In regards to one of the pilots from Italy, Mr Burini, representing UCL and SOGESCA from from “Unione dei Comuni Trasimeno” (UCT) talked about two joint actions were chosen in the pilot territory of Trasimeno, Umbria Region, in Italy: the rural slow tourism/agrifood and energy efficiency through the recovery of wood biomass from waste.

He spoke about their first joint action with agricultural and agritourism entrepreneurs, who joined a new association with the common interest: to promote in the territory an ever wider model of integration between farms, associations, trade organizations, etc. for the production and associated management of goods and services around Lake Trasimeno, which is the 4th biggest lake in Italy. In support of these initiatives there are new regulatory instruments, that allow supply chain contracts to reach the technical and economic requirements necessary for the realization of agro-tourism activities The EUTROPIA Association includes over 40 small and medium-sized farms that, for over a year, have jointly decided to undertake a common path.

There is a pilot project under construction for a small heating network in Magione (Molino New Srl and municipal sports facilities) and the construction of a logistics site in Corciano (Migiana) where wood biomass can flow from waste of the territory neighbouring (circular economy) to build nearby



a heating system of an industrial shed for the production of parquet wood. This would have several positive effects in terms of energy savings, land maintenance and youth employment.

In regards to the pilot in Tunisia, Mrs Kallai gave short answers to the same questions about Dar Margoum Association, based in the berber village, in Oudhref in Tunisia. Oudhref is a village at the gates of the Tunisian Sahara, the village is made up of an Oasis. It is located in the South of North Africa, in Gabes Governorate. The local economy is based on the handmade production and exploitation of regional natural products like pomegranate, henna and the berber carpet (called: Dar Margoum) for centuries. The production of the handmade Berber Wool Kilim Handwoven Rugs/ Carpets represents the circular economy also in the aspect of redesigning the used wool waste into new fashion models (bags, coats). In this aspect the “Circular Hand Woven Craft” or “Circular Sustainable Handicraft ” represent the ecological value chain is covered by all steps of CE in this local action.

The Dar Margoum Association organized several actions, taking direct contacts with their consumers as well, underlining that they are excited to be involved in the first Tunisian Circular Rural Living Lab. The Association members want to be better informed from the novelties in their activity fields of the handmade live wool and weaving craft. The ecological supply chain is required for better development because all the members can benefit from the development.

Main difficulties identified by the pilot partners to make a circular rural living lab alive in mid/ long term?

In Tunisia, due to the limited sources and skilled people, large projects cannot be implemented easily in the region. There is also environmental pollution that affects nature due to some other industrial chemical factories. The entrepreneurial attitude must be encouraged better, due to the lack of the necessary skills and spirit how to become individual entrepreneurs, to know better the market, the sales etc.

To find the appropriate actors to work together is not an easy task. There is still a resistance to work in cooperation.

For example, the Umbria Region decided upon a new regular model of regional law that fixes the task of every actor.

It is important to explain to a single actor what they must do on a singular basis in order to have this work done.

I.1.3 Outcomes linked to LIVERUR results

LIVERUR could have a significant impact to complete the already known Circular Economy referential model by Social Circle.

1. LIVERUR has significant impact to complete the already known Circular Economy referential model by Social Circle: Reuse/remake offers new and challenging social value as well in the circular economy.

- We need to build a buy-in control for the producers and retailers (in the whole scale of target groups) who supply consumers with goods and services.
- We need to support the consumers to be able to deal with this major evolution of supply and demand.
- Change and leadership is coming from industry (technological circle in the circular economy model), so now the industrial players with the network of suppliers need to look at whether the consumer can handle such a major change in the consumption in the shared economy.
- Therefore in the new circle in the circular rural economies we must identify the social benefits as well as purely technical and financial ones.

2. The future of the rural communities is depending on the top-down and bottom-up approaches.

3. In the circular and shared economies the main processes of the material/technology/social circles are not ending with the waste, in opposite the main goal is the extension of the product lifecycle by the new collaboration among the suppliers. Their collaboration will depend on the market demand and the real/future needs of the customers. The waste would be redesigned, re-processed, re-cycled, re-used, re-distributed, re-marketing. How LIVERUR Circular Rural Living Labs could meet these goals? That is our present and next tasks in the remaining project period and to share again our results in the next “Knowledge Transfer Session” for much higher number of external attendants.

Specific outputs of LIVERUR linked to circularity and rural Living Lab concept

Article: Living Labs for Rural Areas: Contextualization of Living Lab Frameworks, Concepts and Practices. Veronika Zavratnik, Argene Superina and Emilija Stojmenova Duh Faculty of Electrical Engineering, University of Ljubljana. <https://liverur.eu/wp-content/uploads/2019/09/sustainability-11-03797.pdf>

D3.1. Report of Case studies on rural living lab’s definitions. <https://liverur.eu/wp-content/uploads/2018/12/D-3.1-Report-of-Case-studies-on-rural-living-labs-definitions.pdf>

D3.2. Report of “Mapping the living lab technique”. <https://liverur.eu/wp-content/uploads/2019/04/D-3.2-Report-of-Mapping-the-living-lab-technique.pdf>

D3.3. Report of analysis of the implementation challenges. <https://liverur.eu/wp-content/uploads/2019/04/LIVERUR-D3.3-Report-of-analysis-of-the-implementation-challenges.pdf>

D3.4. Benchmarking of traditional value vs platform based living lab concept. <https://liverur.eu/wp-content/uploads/2019/04/LIVERUR-D3.4.-Benchmarking-of-traditional-value-vs-platform-based-living-lab-concept.pdf>

D3.6. Feasibility assessment report on LCA & LCC. <https://liverur.eu/wp-content/uploads/2020/01/LIVERUR-D3.6.-Feasibility-assessment-report-on-LCA-LCC.pdf>

D4.2. Report on the multi-model approach. <https://liverur.eu/wp-content/uploads/2019/10/D-4.2-Report-on-the-multi-model-approach-for-including-circular-approaches-utilizing-system-dynamics.pdf>

D4.3. Report on the generation of the concept of Regional Circular Living Lab Approach in rural areas. https://liverur.eu/wp-content/uploads/2020/01/2020_01_28_LIVERUR-Deliverable-BAB_D_4_3_final.pdf

D5.1. Circular Rural Business hub: database for piloting and stakeholders' involvement.
<https://liverur.eu/wp-content/uploads/2019/07/D-5.1-Circular-Rural-Business-Hub-database-for-piloting-and-stakeholders-involvement.pdf>

I. 2 Rural development and business modelling (Roundtable 2)

In the framework of the rural business landscape, LIVERUR identified regional dominant business models, mainly related to agriculture and farming activities (food and drink industry, conventional and diversified farming), as well as a set of diverse innovative trends, answering to rural issues and crossing together sectors that may often be “historically” split (social and cultural services, business services, energy, tourism).

These innovative trends (such as quality of food, excellence in product and service design, services, local energy production and use, digital technologies supporting agrifood value chain and crossed data platform) open the way to new regional circular business models, targeted for the Living Lab pilot projects.

LIVERUR also highlights key challenges, based on the regional historical business models and “real life setting” analysis, related to the environmental, social, technological, economic and policy changes that rural territories have to face, at both local and global scale: moving towards business models that are both socially inclusive and economically viable, and addressing the climate change as a major threat are two of these issues shared by the whole LIVERUR community.

I.2.1 Composition and objectives of the Roundtable 2

a) Composition

KEYNOTE SPEECH: Alexia Rouby, European Commission, Directorate-General for Agriculture and Rural Development, Research and Innovation Unit. Rural development and Business modelling. Why is it important to think in terms of business models to build the rural areas of the future?

ROUNDTABLE:

- Bénédicte Julliard, Greenovate! Europe EEIG, RUBIZMO Project - Belgium
- Emilija Stojmenova, University of Ljubljana LIVERUR pilot - Slovenia
- Radana Saskova, UHLAVA LIVERUR pilot - Czech Republic
- Klaus Wagner, Bundesanstalt für Agrarwirtschaft und Bergbauernfragen (BAB) – Austria

MODERATOR:

Françoise Cadiou, Commissariat à l’Energie Atomique et aux énergies alternatives (CEA) – France

b) Objectives

The main objective of this roundtable was to share visions and experiences from LIVERUR pilot zone as well as from the European Commission point of view, with other projects such as RUBIZMO to discover the vital ingredients for developing entrepreneurship and successful business models in rural areas.

The specific objectives of this roundtable were focused on:

- providing the pilot zones representatives with practical knowledge and case studies on new and innovative business models in rural areas,
- having a clear perspective about recent EU policy developments and their influence on rural businesses,

- enhancing some practical examples about new business models from the targeted regions,
- identifying how to ensure sustainable business model at regional level through connecting pilot projects and European policy,
- understanding the approach of business modelling for the format that we want to form in our pilot area,
- getting insights and suggestions on innovative practices and tool to better develop business mode,
- creating links and crosscutting issues among the different pilots areas to share common/Euro-pean perspectives and challenges

1.2.2 Main outcomes in terms of knowledge transferred

KEYNOTE SPEECH: Rural development and Business modelling. Why is it important to think in terms of business models to build the rural areas of the future? Alexia Rouby, Directorate-General for Agriculture and Rural Development, Research and Innovation Unit, European Commission.

Presentation of the general trends of the rural areas based on the premise that rural people and businesses have changed and that economy of scale matters less. Therefore, new challenges and new opportunities have arisen which pose open questions to the rural communities and the policy makers:

- **Future of food:** shorter chains with more value?
- **Future of education/health:** digital bridging the gap?
- **Decentralised production and consumption:** will economies of scale matter less?
- **The “end of work”:** why live in urban centres if it is not to work there?
- **Resources:** are rural business models resource-efficient and climate-friendly?
- **Social foundation:** are rural business models providing well-being to rural people?
- **Rural innovation:** What type of innovation do we need for rural businesses? The need for a long-term vision of the rural areas.

6 overall policy priorities can be identified: A European green deal, an economy that works for the people, a Europe fit for the digital age, protecting our European way of life, a stronger Europe in the world, a new push for European Democracy. The need to find solutions to make rural areas fit for future include topics such as: climate & environmental resilience, social progress & well-being, both for high-density urbanised and for low-density rural economies and sustainable development goals can only be achieved with vibrant rural areas.

Key features:

- need for technical, technological but also social innovation. Collective action as a driver of social change,
- co-creation, user oriented, people at the center,
- innovation that adds and retains value for rural communities

What is needed to support rural business innovation?

General:

- support local partnerships/cooperation,
- invests in knowledge exchange and learning,
- targets individuals as much as businesses

For small businesses:

- Improve ICT skills and infrastructure,
- Skills upgrade, links with high-education institutes,
- Help develop networks & cooperation,

- Place-making and spatial planning

Presentation of the EU policy landscape, programs and tools: CAP, Horizon Europe and Regional policy.

ROUNDTABLE

Expected impacts for the rural development

Among the expected impacts are more sustainable and resilient regional products, services and subsequently creation of jobs. Upstream and downstream activities as well as the possibility for more people to live and work in rural regions creating less dependencies on, more or less far away, heavier populated areas. This development will stop the downwards spiral effect and turn it into an upward one.

Key success factors to implement such a concept

As key success factors, Klaus Wagner (BAB) sees the consequent trials to bring people and various regional players, stakeholders together, the creation of regional awareness and to overcome of maybe traditional structures of skepticism among various stakeholders. There should be a place where “lone fighters” can meet and the various existing innovative ideas can be discussed and brought forward, where also the creation process of innovative ideas is supported.

Opportunities and challenges to start or improve circular sustainable businesses in the regions

In Slovenia there is an existing Roadmap towards the circular economy, which defines the potential in 4 priority areas: food system, forest-based value chains, manufacturing industry and mobility. However, this roadmap is written on a national level and in many cases unsuitable for rural areas, as villages and rural areas cannot be understood as smaller cities. So one of the first challenges is to adapt the existing strategies and documents to fit for rural areas.

Circular economy is not a new concept, however, because of the modern digital technologies can be fully utilized. Digital technologies are enablers for circular economy. However, according to a recent report from Eurostat (<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20200207-1?fbclid=IwAR0XIC46xEZmbcTFCIglearF7XdIXQQVkrCKqzPVBh6jOxxpYTDqCXuAD0s>), there is a large gap in digital skills in rural and urban areas. So, what it needs to be done is to make sure, people in rural areas and their digital skills don't lack behind people in urban areas.

In West Bohemian region rural areas there is a strong tendency to depopulation and also the region is ageing. Circularity within the region mostly counts on well-developed networks of local, often small businesses that together can reach much better results than single entities. On the other hand, the bureaucratic load often prevents them from developing and supporting collaborative solutions, just because they do not have enough time to do so. The challenge is to make the local cooperation work and thus increase numbers of innovative ideas. Good practices exchange and help of new technologies (and helping people understand and use new technologies and IT supported solutions) seem to be a way to improve sustainability of business and social activities in the area.

How the Living Lab project you are piloting should contribute?

Raise the awareness about circular economy, and how digital technologies can support circular businesses; adapt existing or develop new circular business models; develop programs to raise

digital and entrepreneurial skills for rural people. Help rural people by introducing ways they can get funding for circular businesses.

Putting together niche food production, local small arts & craft production and tourism issues is a very complex topic. In a geographically small area, we aim to pilot possible added value creation through combining these three areas of business activities which seem to be a chance for establishing new businesses (or keeping up or improving the already existing ones). It makes much more sense to use an IT platform for a better marketing of the area, concentrating information on issues of these depicted topics such extended info will help the businesses to save time (at least part of the marketing will be done for them). The IT solution should cover joining the diverse sources of information and include the local SPOIs (Smart points of interest) as well. An electronic market place should also become an integral part of the solution. All this needs a well-developed, trustworthy and bottom-up established network of stakeholders which now is the biggest issue for us.

Key resources needed to implement such a Living Lab, and to guarantee its sustainability
Funding is of course always an issue, however, what has to be seen is that the most important resource are people – local coordinators, who serve as promoters and ambassadors of circular business models. Moreover, active engagement from both local and national politicians is very important.

A possible solution are human resources from the area as well as the involvement of stakeholders even on regional or national level (extended networking, international project partner as well). Furthermore, the niche products sales and involvement of the business partners should hopefully guarantee the sustainability along with the increased knowledge from the updated datasets of the pilot region gathered with LIVERUR.

RUBIZMO and LIVERUR European H2020 projects seem to have close links regarding rural development: how they may be correlated to strengthen the transition to regional circular business models and interaction between stakeholders.

RUBIZMO and LIVERUR have complementary approaches towards rural development. While LIVERUR is very much focused on the practice with its Living Labs, RUBIZMO followed a more theoretical approach, with a top-down analysis of business cases across Europe. Based on the knowledge collected, the project is currently developing several business tools that could also be used to integrate findings from LIVERUR. RUBIZMO partners will also launch a dedicated training campaign in the coming months, where input from LIVERUR partners would also be welcome.

The RUBIZMO training campaign will address different kind of audiences thanks to three dedicated training tools: a MOOC (Massive Open Online Course) opened to all stakeholders and in particular students and aspiring rural entrepreneurs, coaching and training sessions, dedicated to rural entrepreneurs, as well as a train-the-trainer scheme, for networks and support actors. On top of this, study visits will be organized within the RUBIZMO Rural Development Academy to inspire rural entrepreneurs.

From the “Living Lab scale” to a regional one, the key success factors to make the new business models economically and socially viable consist in:

- integrating different models and ideas in one simple model but it might be still not simple enough,
- considering all chapters of circularity business models (organization, financing, etc.),
- taking into account “real life settings” are important in order to examine the external factors to assess the viability of a project before it starts,

- establishing co-creation processes that bring people together, low density in population is based on this roadmap to circularity from a national perspective/level. Rural areas are seen wrongly as small cities which do not address their real problems,
- enhancing digital technologies that are allowing the projects to become reality but there is a lack of digital competences in rural areas that should be tackled,
- soft skills for user engagement are also necessary and training has to be provided,
- addressing first business models as living labs but it has to be addressed which is the most sustainable model (public private partnership in 1/3 financing in Slovenia). This increases sustainability because people are already involved,
- finding support from technical partners to implement the tools,
- combining areas of food and tourism from different geographical regions (copying existing concepts and combining them),
- anticipating how the model will be carried on once the project is over. In that case, the SMEs are the most probable options (e-market concept). Nevertheless, also large companies have a role to play in value chain and sustainable business model and have to be taken into account in case the piloting regions settings include such players. However, integrating larger companies (such as the global ones) into the local value chain poses a big challenge for rural Living Labs.

National roadmaps are not perfect for rural communities; some new policies have to arise. Pressure on resources are bringing back rural areas on the map.

About the dialogue with your stakeholders/policymakers

In Slovenia, due to the changes in the government, there is a lack of continuity in rural policy. The constant factor however is the middle management level which stays the same and serves as an appropriate access point.

In the Czech Republic the pilot partner shared the experience of this development and they concur that they maintain good contact with middle-management agencies and regional authorities. Another way is the creation of new rural networks which takes to set up but creates trust in the long run. There is also a need to work on bases on existing projects and results. Taking advantage of the past leader results and feeding them into the new RLL as well as integrating funding opportunities. Industry circular hubs could work as a new concept but it has to be also taken into consideration that there are many concepts available but in reality there exist little practical initiatives for the increasing the quality of life of rural areas. One conclusion could be to stop paying so much attention to the name of a concept – either smart villages, living labs, digital innovation hubs, etc. since the most important factor is the goal – rural development, for which many different concepts and measures can be used as well as integrating financial resources from different funds to make sure the goal is sustainable.

Key success factors:

- Co-creation: bring the people together. Not many people, not many producers and consumers, bring people to be beyond this critical point,
- Rural areas, what is suitable for rural areas. Digital technologies are the neighbours of the circular economy,
- Digital skills, huge gap in rural and urban areas. To be addressed,
- User engagement, we need the people to motivate the people to take part to this approach,
- Sustainability of the LL: business model for sustainable, public private people funding and partnership. 1/3 project, 1/3 authorities, 1/3 local entrepreneurs.

Finding some local stakeholder to keep on with the results of the piloting area, to address the other stakeholders.

I.2.3 Outcomes linked to LIVERUR results

RAIN concept

How the RAIN concept you developed in LIVERUR may contribute to more circular sustainable business models?

The fundamental and not changeable challenges for businesses in rural regions are low densities and long distances in manifold aspects - if you think on potentials of resources, producers, manpower, markets, consumers, markets, potential of knowledge, creative ideas and innovation, potential of sustainable long-term operations, - often below critical masses. The RAIN concept tries to overcome these challenges by integrating considerations of circularity, open innovation, stakeholder engagement and social, ecological and economic sustainability in every element of a business plan and trying to make use of most recent and innovative and especially adapted ICT developments. It intends to give incentives to use the potentials of rural regions on every level and by co-creation and cooperation get a better result than only to sum up single potentials.

It is important to base the RAIN concept upon the real life settings of each area in order to first be clear about the region, and understand which kind of synergies exist with the environment.

Specific outputs of LIVERUR linked to circularity and rural Living Lab concept

D 2.1. Report of existing business model. <https://liverur.eu/wp-content/uploads/2018/12/D-2.1-Report-of-existing-business-model-in-EU-countries-and-regions.pdf>

D2.2. Report on benchmarking criteria creation. <https://liverur.eu/wp-content/uploads/2018/12/D-2.2-Reporting-on-benchmarking-criteria-creation.pdf>

D2.3. Report on identified weaknesses and challenges. https://liverur.eu/wp-content/uploads/2019/05/LIVERUR_D2.3_Report-on-identified-weaknesses-and-challenges.pdf

D2.4. Report on the creation of the benchmarking study. https://liverur.eu/wp-content/uploads/2019/04/LIVERUR_D2.4_Report-on-the-creation-of-the-benchmark-study.pdf

D3.5. Report on Development of innovative models https://liverur.eu/wp-content/uploads/2019/07/LIVERUR_D3.5.-Report-on-development-of-innovative-models.pdf

D4.1. Report on the suitable business models identified for each piloting territory. <https://liverur.eu/wp-content/uploads/2019/07/D4.1-Report-on-the-suitable-business-modelsin-EU-countries-and-regions.pdf>

D4.3. Report on the generation of the concept of Regional Circular Living Lab Approach in rural areas. https://liverur.eu/wp-content/uploads/2020/01/2020_01_28_LIVERUR-Deliverable-BAB_D_4_3_final.pdf

I. 3 Social, Environmental and Economic Impact pathways of LIVERUR (Roundtable 3)

The main focuses of this roundtable and the presentations:

- (i) In LIVERUR setting, societal impact means creating resilient rural communities through introducing open innovation and circularity as key concept in the pilot regions,
- (ii) new services and products created in course of the LIVERUR project contribute to creating this long-term societal impact,
- (iii) approaches developed in LIVERUR (e.g. RAIN business model) can be a complementary bottom-up (respectively bottom-linked) governance instrument to the top-down oriented Green New Deal strategy.

- “Resilient communities” is an attractive term, sometimes however abstract: which peculiar traits should have a resilient community in rural areas?
- LIVERUR business model aims at being bottom-up and the many piloting partners confirm that intentions are often followed by successful actions; however, engagement of rural communities is still a challenge. What societal impact would you, as DG AGRI representative, see as the most welcome in order to diminish the reluctance of rural communities to engage in policy discussions?
- Social, environmental and economic impact pathways are really moving at the same speed in terms of importance? Challenges are multiple (climate change, commercial warfare, low-skilled flows of migrants), is there a priority code to give? Is one the key to solve the others?

I.3.1 Composition of the Roundtable 3

a) Composition

KEYNOTE SPEECH: Wolfgang Haider, Zentrum für Soziale Innovation GMBH (ZSI) - Austria

ROUNDTABLE:

- Orsolya Frizon Somogyi, European Commission, DG AGRI, Leader of Agriculture’s task force on social inclusion
- Natalia Silva, Fundo Regional para a Ciência e Tecnologia do Governo Regional dos Açores (FRCT) – Portugal
- Sabrina Rosati, E35 Fondazione per la progettazione internazionale LIVERUR Pilot – Italy
- Mathieu Merlhe, The Brittany Chambers of Agriculture (CRAB) LIVERUR Pilot – France
- Jean-Noel Chaussesse, Chambre d’Agriculture Régionale Pays de la Loire (CAPdL) LIVERUR Pilot – France

Moderator:

Martina Occelli, CLEOPA GmbH - Germany

I.3.2 Main outcomes in terms of knowledge transferred

KEYNOTE SPEECH: Social impact pathways to of LIVERUR, Wolfgang Haider, ZSI- Centre for Social Innovation

What does social impact mean?

- Impact is not certain, not under our control, hard to influence and steer, unpredictable and surprising, often depending on external factors and rarely linear,
- Impact can be positive or negative, intended/expected or not intended/unexpected/unwanted,
- Impact takes time to appear and might change or become diffused over time and is often difficult to attribute,
- Impact does not show itself automatically, to be demonstrated it needs to be tracked, measured and recorded, identifying and quantifying impact may vary widely between different projects,
- Scientific, economic and social impacts. The social issues you want to address, what steps will you take, how will you measure them?

Social impact in LIVERUR:

Projects need to have a good knowledge on how they impact society. Therefore, LIVERUR applies various co-creative, user-oriented methods in the design and implementation of its pilot actions. Hereby, LIVERUR has identified various impact dimensions where long-term change should be sparked:

- Strengthened resilience of rural communities,
- Open innovation processes in stakeholder ecosystem,
- Social innovation as key component of rural ecosystems,
- Regionally grounded, circular economy oriented development models

What is the social component of the RLL concept in LIVERUR?

- The top of the pyramid collects factors which are not easily influenced (societal behavior). LIVERUR has several dimensions of social impact,
- Social innovation is a crucial part to change social behavior in the long run (holistic approach),
- Impact model: fundament of every project to produce outputs and impacts.

In LIVERUR, there are various dimensions of social impact: the strengthened resilience of rural communities, the open innovation processes in stakeholder ecosystem. Social innovation is a relevant factor in the co-creation that helps to support the change in social patterns and social behaviors.

Expected Impact	LIVERUR objectives
<p>Increase the potential for rural economic diversification, added value and job creation in a variety of rural areas thanks to the dissemination of promising business cases; Make rural economies and societies more resilient to global changes;</p>	<ul style="list-style-type: none"> • New services, related to green infrastructures services; • new products and services related to the “agriculture - environment – tourism as well as environment- culture – tourism” value chains; • cooperation with the educational system; • cooperation with the regional rural development authorities. • Job creation and innovation in rural areas; • Utilization of RAIN business model concept; • Promoting short food chains and regional energy solutions.
<p>Improve the delivery of ecosystem services resulting from innovative forms of valorisation.</p>	<ul style="list-style-type: none"> • Support and strengthen local ecosystems; • Develop new services embedded in rural pilot region contexts; • Create cooperation and knowledge platform.

Table 1 - Expected Social impacts of LIVERUR (Source: ZSI, Centre for Social Innovation)

How does LIVERUR can contribute to a Green New Deal?

LIVERUR can contribute to policy strategy addressing five specific topics of the EU green deal.

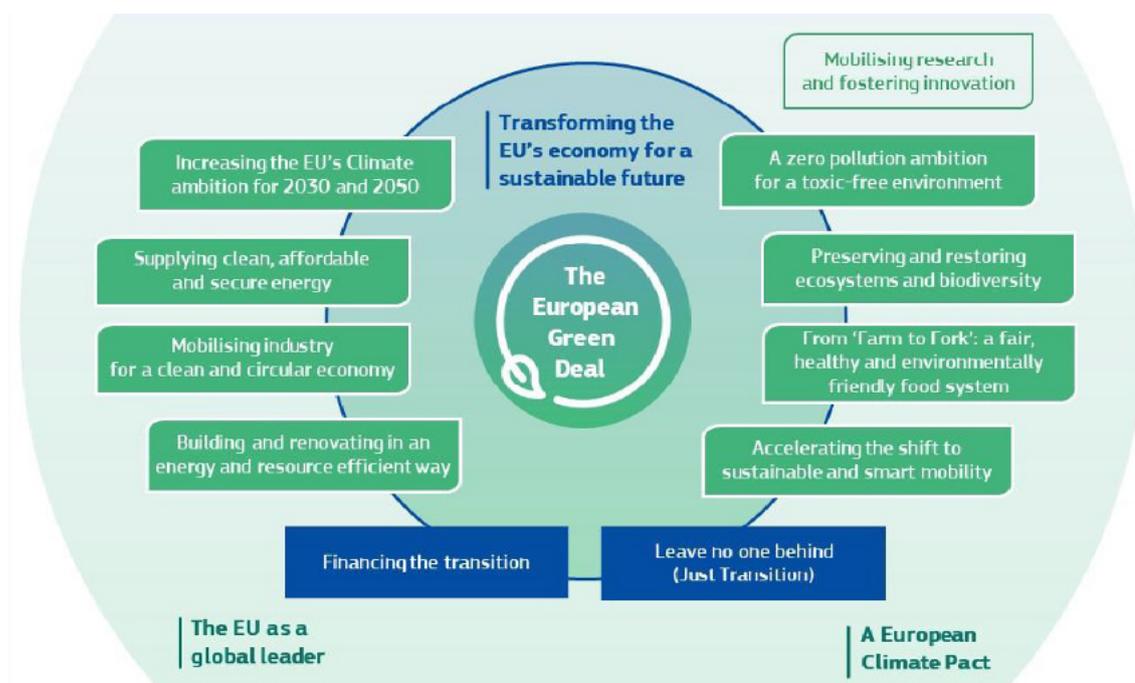


Figure 3 - Transforming the EU's economy for a sustainable future (EC) (see above)

**Increasing the EU's climate ambition for 2030 and 2050:**

- Promoting waste reduction
- Increasing re-use of materials
- Connecting local businesses
- Creating awareness for climate change

Mobilizing industry for a clean and circular economy

- Getting SMEs on board
- Transforming business models
- Introducing Open Innovation and circularity as key principle in rural economies

Preserving and restoring ecosystems and biodiversity

- Supporting biological farming
- Implement sustainable and smart tourism concepts
- Promote regional goods and services

From Farm to Fork: a fair, healthy and environmentally friendly food system

- Establishing new regional Bio-competence hubs
- Transforming linear food-value chains
- Connecting farmers, consumers and researchers

Leave no one behind (just transition)

- LIVERUR supports the creation of integrated approaches for coordination of services across different sectors (e.g. digital platforms), alternative models to deliver services (one-stop-shops, digitalised farming) and organisational rearrangements (e.g. empowering intermediaries).
- Combining Living Lab, Circular Economy and Social Innovation approaches in rural regions unlocks regional development potentials and goes beyond traditional business model conceptualisation.
- Public-private people partnerships contribute to a socio-technical regime change towards a green economy.
- The RAIN concept provides a tool to exploit regional development potentials in a viable, integrative, inclusive and sustainable manner.
- LIVERUR provides a useful, bottom-up oriented and inclusive governance approach to support just transition mechanisms in rural regions across the EU and beyond.
- Circularity can increase the social impact due to its sustainability.
- LIVERUR allows confrontation of unusual groups.
- Facilitation is necessary between rural, urban, policy and a problem of financing after public funding stops.

a) Societal impacts implies the creation of resilient communities**In an isolated context as the one of Azores, what means resilience and consequently, which societal impacts are needed?**

Natalia Silva, Fundo Regional para a Ciência e Tecnologia do Governo Regional dos Açores (FRCT)
LIVERUR Pilot – Portugal

The Azores have a double isolation context: Islands Dispersion (we are nine islands extended over more than 600 km) and Outermost Region of Europe (1500 km from Portugal and 2500 from Canada). Historically, the Azoreans have been able to surpass several situations - tropical storms, volcanic incidents, agriculture plagues; and have shown their resilience towards the adversities and ability to reborn from them. The main difference was they were punctual incidents.

Nowadays, we are all facing new challenges - such as climate change - and all the ambiguity and uncertainty that arises from it and, as “islanders”, it became necessary to rethink systems and make them sustainable for everyone.

However, this adaptation (or resilience) is not sustainable if it serves only us and only now, it needs to work for other communities, for future generations, and to the ecosystems on which we depend. Answering directly to your question on what does it mean resilience in this context, it means working all together on a knowledge basis.

In Italy, and especially in an economic hotspot of diversity such as Reggio Emilia, what means resilience and consequently, which societal impacts are needed?

Sabrina Rosati, E35 Fondazione per la progettazione internazionale LIVERUR Pilot – Italy
Resilience means the capacity to address the big challenges coming from demography, (migration and increasing of elderly people), urban sprawls and links between urban and rural areas needed (soil consumption, mobility, connections), sustainability issues, preserving and enhancing traditional and social values (solidarity, community, high entrepreneurship), welfare and education excellences, and quality life.

Societal impacts needed: community linkages enforce, social inclusion increased, social innovation promoted in terms of services and communities’ empowerment and engagement, bottom up governance.

In Brittany where agricultural activities are still occupying a major role on the economic scene, what does it mean resilience and consequently, which societal impacts are needed?

Mathieu Merlhe, The Brittany Chambers of Agriculture (CRAB) LIVERUR Pilot – France

Three issues for resilience in Brittany:

- Economic Resilience:
 - Try to increase the added value of the main regional trends: develop new systems, new trends, and labels: organic, Protected Geographical Indications (PGI), develop good marketing,
 - Improve the farmer skills in farm management: volatility, low cost production
- Environmental resilience:
 - Deal with and adapt our farming system to the climate change impact
 - Preserve our natural resources: water, soil, air, biodiversity, landscape which is a highly attractive factor for people: retiring, active (1h30 from Paris), tourism
- Societal resilience:
 - Attract young people in our farms => employee and young farmers,
 - Deal with consumers and citizens’ expectations, doubts (...) and preserve agricultural surface

Societal impact includes the number of direct and indirect jobs, farmers and consumers mindset, the acceptability of the “live together”, and attractiveness of our region.

b) What output of the LIVERUR project is contributing or will contribute the most to reach the objective of resilient communities

The Azores case

The Azores Pilot is about quality and sustainable production.

It identified several strengths and several weaknesses within the analysis done under the LIVERUR project. In summary, the Azores have generally environmental neutral holdings, and a high quality production, but it could be even better with the use of ICT for precision farming or food tracking with storytelling for products added value.

In the last years, the Regional Government has been working with some stakeholders in strategies to promote agricultural and environmental sustainability (as examples: Strategy for Organic Production; crops diversification strategy; incentives for young farmers and women; incentives to the digitalization in agriculture, among other), but there is a need for more stakeholder involvement to scale the strategies.

The physical space of the Azores Pilot on Quality and Sustainable Production is TERINOV – the Science and Technology Park dedicated to agri-business. TERINOV provides a multidisciplinary ecosystem, offering a set of services and infrastructures (e.g. biotech labs, dairy labs, experimental parcels) to promote innovative products and services, and facilitating through its network of stakeholders the involvement of all societal stakeholders.

From the LIVERUR project, we expect the creation of an Azorean Rural Development Ecosystem in order to reduce rural poverty and to create socially inclusiveness, gender-equality and sustainable development in the Azores.

The Reggio Emilia case

- The idea of giving new role and new acknowledgment (in terms of innovation and circular impact) to rural communities and rural activities through the RLL (engagement of rural communities together with other stakeholders, the leverage of circularity considered not just as environmental issues but an approach to have a return for the local community).
- The idea to enhance multifunctional business with integrated services able to “regenerate” challenges areas such as mountains areas or peri-urban ones.
- The opportunity to create a European network among rural communities.

The Brittany case

LIVERUR pushes and motivates us to:

- Build territorial communities on several issues,
- Work with all the local stakeholders: farmers, citizens, local authority,
- Use new methodology (e.g. RAIN Concept...) to co-create innovative solutions,
- Think “business”

Our Living Lab deals with the main resilience issues (economic, societal, and environmental) on a local approach. The main outputs should ensure sustainability for the projects: positive for the farmers, accepted by the citizens, supported by the local authority and industry.

The Pays de La Loire case

Jean-Noel Chausse, Chambre d’Agriculture Régionale Pays de la Loire (CAPdL) LIVERUR Pilot –France

The attraction of urban territories: First of all, Pays de Loire is a hub of beauty and excellence boosted by urban territories like the urban communities of Nantes, Angers, Le Mans, and by urban areas representing economies, employees and culture. A good example for the importance of the region is, that half of the increase of the population of Pays de Loire during the last 20 years has been concentrated in the 24 communities around the town of Nantes.

It is essential to gather some resources of engineering to rural territories, in which we are working with the rural inhabitants, on rural economies, to develop rural employees or to solve problems of rural or peri-urban areas (such as Pornic about water quality). Our two pilot zones are chosen far from the big town of Nantes, far from the urban system of development (60 km), but both are important zones for the well-being of the society, and of course important for the farmers if they want to play a role in in the future economic system.

c) Societal impacts call for resilient communities on a social, environmental and economic level

How these multi-layer perspective in LIVERUR bottom-up approach is reflected for the Azores?

Being an island the ecosystem is very important and interesting but in fact very fragile; knowing the interconnection between tourism, environment, use of the soils, and use of marine space is key. We can say that there is a regional conscience of the economic potential of the Azores endogenous assets that the RAIN – Rural Living Lab multilayer concept will help capitalize through the involvement of all stakeholders.

How these multi-layer perspective in LIVERUR bottom-up approach is reflected for Reggio Emilia?

The Edible Park developed in the peri-urban area is an experimental project aiming at demonstrating effectiveness of multifunctional services for: creating a park to preserve the landscape, producing quality and sustainable food (respecting circular economy conditions) to be sold in the local retailers, integrating asylum seeker in the activities, and offering schools, citizens and other environmental educational activities (multi stakeholder partnerships). The Pilot in LIVERUR will aim to guarantee/ promote the economical sustainability of the experience.

The community coops originated with the idea to preserve local communities (keep inhabitants living in challenging areas), promoting activities linked to maintenance of the local landscape and environments and offering basic social services. Tourism activities are the leverage to integrate and make all the better activities sustainable. The pilot experimented with LIVERUR will allow to enhance tourist activities in order to keep and enforce all the other coops business activities (circularity of the model).

How these multi-layer perspective in LIVERUR bottom-up approach is reflected for Brittany?

The 3 RLL in Brittany use the same methodology but have an overall different scope. Each RLL focus one main issues:

- o “RLL Territorial milk”: try to develop a local brand based on the promotion of the farming system => grassland, non GMO,
- o “RLL Metha Bourg Des Comptes”: collective biogas plant with societal acceptability,
- o “RLL Air and Energy”: find solutions in farming system to improve the carbon

How these multi-layer perspective in LIVERUR bottom-up approach is reflected for Pays de La Loire?

Open approaches: On those rural territories a limiting factor of development are segmented approaches. Groups of farmers are not used to working with retailers, with industrials or with school. That is one of the limiting factors hindering efforts to improve and transform the food system. In the past farmers had to produce to feed the population. Nowadays a large scale of needs is materialized by society and farmers have to pay attention to those new needs.

1/ Environmental needs for water quality in Pornic. In a coastal area the lack of water during summer is a limiting factor for the life of the city. But farmers also need water for their crops of maize for irrigation. Is it possible to produce on farms with less pesticides to increase the water quality? If environmental problems are surmounted, if actors are able to build a deal on those very strong problems, the economic and social problems will be easy to surmount in the future.

2/ Energies for Derval: Derval is engaging in a plan about how to share problems of energy savings on the commune. How a mechanization process built in the past five years by the farmers, the commune, and the school constitute the first step to a new range of innovations for the inhabitants?

A process in which stakeholders are largely associated. It allows very unusual confrontations of point of views. Co-construction processes are possible with open meetings; the possibilities are larger because the reality is based on a “cold analysis” disconnected from politics point of views for the first time. It is particularly true in the pilot zone of Pornic about the work about water quality, but true also for the commune of Derval.

2 main outputs:

1.- Social inclusion and economic viability are intrinsically linked, and depends on stakeholders' integration/engagement/expectations,

2.- Highlighting the key issue to address in the following steps of LIVERUR: How to experiment RAIN concept in each pilot as a crucial instrument to link SMEs with PPP partnerships in a social inclusive and open innovation manner, and to guide the social transformative change, which is a required condition to ensure the sustainability of the business model?

Policy challenges for rural areas:

1- Lots of instruments exist already, but there is a need for a political message to go and use these instruments. Rural communities are part of our challenges. Policy makers can miss some rural communities, since no clear vision of the communities is shared between them. Making rural communities, there is a need to know about the policy and have to be convinced about it. Main difficulty in policymaking is how to reach the rural territory directly. People are concentrated in cities; often urban thinking is applied for rural territories. Urban areas are proactive and know about policy processes and policy makers.

2- 2nd step: Co-creation measures have to be applied, not everybody goes for it and with a limited budget. Social innovation is a key factor, need for governance level. The instruments can be used as much as it could be nevertheless on the territories some specific stakeholder should launch the process. It is highly positive that somebody trusts the strategy and identifies the solutions to be built up but there is a risk in each step that it can be lost.

Stakeholders' involvement and politics engagement:

- Important of the awareness campaigns, and training programs. Some people do not know about the initiatives, some people think that their opinion is not valuable.
- A large scale of stakeholders has to be involved.
- Need to work on the demonstration of real solutions and confront the solutions with the reality together with the local stakeholders.
- Support from politics is very important and we are always trying to establish dialog with them. However, due to frequent changes in local and national politics, we have a lot of challenges.

Key factors of conclusions:

- Attract people in rural areas,
- Actions real life oriented to increase the quality of life on the territories,
- Taking into account the social components, needs, responsibilities,
- Finding pushing factors: once we have all the actors, what shall we prioritize and how should these factors be prioritized?
- Give the floor to the people in the rural communities, and set up follow up actions to keep the stakeholders involved and engaged in the whole process,
- Deal with the segmented approach: group of farmers are not used to working with schools, retailers,
- Improve the organization of the system, paying attention to the emergent needs,
- Co-creation process has to be based on a cold analysis, not to passionate,
- LIVERUR is an opportunity to give resource of engineering for rural territory

1.3.3 Outcomes linked to LIVERUR results

In the circular and shared economies the main processes of the material/technology/social circles are not ending with the waste, in opposite the main goal is the extension of the product lifecycle by the new collaboration among the suppliers. Their collaboration will depend on the market demand and the real /future needs of the customers. The waste would be re-designed, re-processed, recycled, re-used, re-distributed, re-marketing. How LIVERUR Circular Rural Living Labs could meet these goals? That is our present and next tasks in the remaining project period and to share again our results in the next “Knowledge Transfer Session” for much higher number of external attendants.

Specific outputs of LIVERUR linked to social environmental and economic impact:

Article: Living Labs for Rural Areas: Contextualization of Living Lab Frameworks, Concepts and Practices. Veronika Zavratnik, Argene Superina and Emilija Stojmenova Duh Faculty of Electrical Engineering, University of Ljubljana. <https://liverur.eu/wp-content/uploads/2019/09/sustainability-11-03797.pdf>

Deliverable 3.3: Report of analysis of the implementation challenges. <https://liverur.eu/wp-content/uploads/2019/04/LIVERUR-D3.3-Report-of-analysis-of-the-implementation-challenges.pdf>

Deliverable 5.1: Circular Rural Business hub: database for piloting and stakeholders' involvement. <https://liverur.eu/wp-content/uploads/2019/07/D-5.1-Circular-Rural-Business-Hub-database-for-piloting-and-stakeholders-involvement.pdf>

2 METHODOLOGY

Overall objectives of the second knowledge transfer session:

- Provide the pilot zones representatives with a deeper understanding of the circular economy concept and model, in order to be able to identify the main stakeholders in their region and successfully design / develop the Circular Living Labs
- Provide the pilot zones representatives with practical knowledge and case studies on new and innovative business models in rural areas
- Highlight the importance of the social aspect in rural areas and come up with a common pathway for its promotion and enhancement
- Highlight the importance of digitilisation of rural areas and the related capacity building activities
- Establish the compatibility and complementarity of the LIVERUR results and tools with other EU funded projects and the overall vision of the European Commission's rural policies

The methodology of this knowledge transfer session was decided to be open to discussions between the stakeholders and the partners from LIVERUR, especially the piloting partners.

Three sessions were organised based on the main pillars of LIVERUR project:

- 4. Session 1: EXPERIENCE OF THE LIVERUR PILOT REGIONS**
- 5. Session 2. DIGITILISATION OF RURAL AREAS**
- 6. Session 3. PRESENTATION OF THE MAIN OUTPUTS OF LIVERUR**

The basic structure of the roundtables was composed by an introduction delivered by the moderator of each of the sessions, a member of the LIVERUR consortium selected because of his/her expertise in thematic area. These introductory speeches were followed by a structured discussion between the members of the roundtable, previously organised between the participants and the moderator of each roundtable.

The participants of the roundtables were chosen based on their expertise on the topic and in case of the pilot partners, according to the progress of the development and good practices of their areas in terms of Rural Living Lab.

The stakeholders invited to this event were both:

- Stakeholders from EU institutions, mostly from the European Commission, other H2020 projects or public and private entities implementing external Living Labs
- Stakeholders from the LIVERUR Piloting regions and technical partners from the project

The following sections will present in detail the composition of each session and the main outcomes are highlighted.

II. 1 Experience of the LIVERUR Pilot Regions (Session 1)

II.1.1 Composition and objectives of the first session, roundtable 1

a) Composition

ROUNDTABLE:

- Rose Ortolani, SOGESCA – Italy
- Paolo Mantovi, Centro Ricerche Produzioni Animali (CRPA) – Italy
- Sabina Cantarelli, La Strada del Vino – Italy
- Michael Wolf, DG AGRI – European Commission

MODERATOR:

Sabrina Rosati, Fondazione E35 – Italy

b) Objectives

The main objectives of this session were:

- Sharing the experience in the LIVERUR pilot regions after the implementation of the RAIN concept
- Pointing out the importance of stakeholder engagement
- Discuss the experience with the new business models and the ways to sustainability
- Explore the relevance of multifunctionality in the implementation of Rural Living Labs

I.1.2 Main outcomes in terms of knowledge transferred

c) Innovation and sustainability in rural businesses

Key question:

How much multifunctionality around food production could be an asset to innovate and make rural businesses more sustainable?

Mr Mantovi: The testbed of all facets of the multifunctionality was the Edible Part initiative. It works as a sustainable food production model to serve local consumers and stimulate societal involvement in the farming activity. In their experience multifunctionality is the key of making an inclusive experiment such as the edible park work (work creation, local community builder, citizen science, educational activities for children as well as the use of branding for the community products).

The challenge was to make the initiative sustainable once the public funding of the municipality ended. In order overcome the transition phase to a more participatory funding model, the edible park adapted the RAIN concept and transformed it into a Rural Living Lab, which renewed the interest of the relevant stakeholders in the initiative. As a tangible result, the municipality launched a public tender procedure and a 4-year management contract for the park was achieved.

Ms Cantarelli: Our business structure consists mostly of small rural family businesses in the catering sector. Our key issues therefore have been to deal with networking and closing gaps in order to achieve circular economy. One of the solutions found was to offer more local products, which with the correct marketing and branding will be recognized as high quality products.

Initially a lack of collaboration between the stakeholders was identified due to ancestral individualism and lack of knowledge. Regarding this stakeholder engagement, a need for a tool was expressed to find a way to combine new or additional service providers to close gaps hindering a successful implementation for circular economy.

Key question:**How does LIVERUR and specifically the RAIN concept enable the multifunctionality?**

Mr Mantovi: At the time, with the end of the public contribution, the edible park found itself in the valley of death of innovation and need new impulses. During the workshops, the RAIN core elements and the RAIN principles have been explained and implemented in 3 separate workshops with the relevant stakeholders. During the sessions, almost automatically the most important aspects of multifunctionality have been identified as relevant to the transformation of the initiative towards being a Living Lab.

Ms Ortolani: 5 workshops have been organized in total, starting from the regional context of the rural businesses (economic, social, environmental and institutional). With the support of the invited stakeholders and using the co-creation methodology, the business models identified were analyzed following the RAIN concept and specifically the RAIN principles to maximize the existing strength and identify weaknesses to close gaps whenever necessary. In order to have this stakeholder engagement working, an active cooperation is absolutely necessary as well as a well-coordinated communication structure which in case of LIVERUR was provided by the workshops and the RAIN platform.

II.1.3 Composition and objectives of the first session, roundtable 2

a) Composition

ROUNDTABLE:

Sara Manfredi, Legacoop Emilia Ovest – Italy
Giulio Cherubini, Unione dei Comuni del Trasimeno – Italy
Sabina Cantarelli, La Strada del Vino – Italy
Michael Wolf, DG AGRI – European Commission

MODERATOR:

Rose Ortolano, SOGESCA – Italy

b) Objectives

The main objectives of this roundtable were:

- Share the experience of the LIVERUR new business models in the touristic sector
- Pointing out the need for innovation in the Pilot Regions
- Highlighting the challenges of involving relevant stakeholders in a co-creation process in order to create a common vision within the Living Lab

II.1.4 Main outcomes in terms of knowledge transferred

c) Introducing Innovation into Touristic Businesses

Key question:**How was the touristic model developed with the help of the LIVERUR RAIN concept?**

Ms Manfredini: Social and innovative actions in the mountain regions of Reggio Emilia. Problems had been depopulation and loss of jobs.

Especially the new stakeholder engagement approach allowed the local businesses to connect with other businesses in the same sector from other regions as well as to include local and regional government bodies.

Due to the RAIN concept and the Living Lab approach, the touristic business models could be enriched and consolidate with additional service products and more attractive offers to the end-users. Ms Cantarelli: The strong seasonality of the business model is one of the big challenges. With the LIVERUR approach, new aspects have been introduced such as experiential and slow tourism to the existing business model in sectors such as gastronomy, agriculture and hospitality. The association “La Strada del Vino” works as a centrally managed contact and organization body connecting hundreds of cultural operators on behalf of the municipalities. Within the LIVERUR pilot actions, ICT booking services have been implemented that allows the tourist to easily find activities in the region. However, the most impactful benefit of the RAIN concept was the act of engaging all relevant stakeholders in workshops and meetings and helping them to prepare an offer coherent with the comprehensive vision of the overall business model in the region.

Another aspect of the touristic model was the so called “south living”, related to the high number of foreign residents, often from northern European countries who have chosen to live in a southern rural area. Some municipalities have chosen to offer special facilities to these new residents with the goal of (1) fight against depopulation and (2) bring economic growth to the community (sales of local products, refurbishing abandoned homes, etc.).

Mr Cherubini: The Trasimeno area consists of many individual smaller and sometimes isolated municipalities. There have been several past initiatives to gather and structure the diverse touristic operators but many of the businesses have been concentrating on their own service offers. Only four years ago the Unione di Comuni de Trasimeno was established which advanced a more unified and comprehensive touristic vision and approach. Within this institutional framework development projects can be implemented to further develop the global vision of the region.

Also thanks to the RAIN concept and the stakeholder engagement strategy of LIVERUR, the challenge of the decentralization of the stakeholders in the region, was improved through the horizontal, participatory co-creation methodology which goal it is to create a common vision with the corresponding touristic offers and inclusion of new or additional services. Specifically, in the brainstorming sessions within the workshops and thanks to the multi-actor approach issues have been discussed and added to the touristic business model, such as:

- Rediscovery and promotion of landscape itineraries
- Environmental policies and wildlife conservation
- Social inclusion actions
- Cultural events

II.1.5 Composition and objectives of the first session, roundtable 3

a) Composition

ROUNDTABLE:

Brendan Murly, Rubizmo H2020 Project – Ireland
Antonio Oliva, Polirural H2020 Project – Portugal
Michelle Perello, Ruralization H2020 Project – Spain
Michael Wolf, DG AGRI – European Commission

MODERATOR:

Patricia Sánchez, UCAM – Spain

b) Objectives

The main objectives of this roundtable were:

- Share experience of different EU funded projects regarding their project results
- Display the cooperation of different projects all related to rural development
- Showcase the similarities and differences in the approaches of how support rural enterprises and create networks to facilitate the co-creation process

II.1.6 Main outcomes in terms of knowledge transferred

c) Joint Summer School (Rubizmo, Polirural, Ruralization, Ruritage, LIVERUR)

Key question:

What was the purpose of the Summer School organised between the H2020 projects and what are the main tools have the different projects developed?

Mr Murly: Our projects are very much working in similar areas, dealing with rural developments and rural enterprises. Therefore, there are many overlaps with the target group and end-users which have become clear during the summer school as well as the complementarity of the tools developed in each of the projects. In order to continue networking and stakeholder engagement, the summer school brought together over 60 rural entrepreneurs and representatives from associations and cooperatives which in smaller break-out sessions to exchange experiences in using the solutions and tools provided by each of the projects.

Rubizmo's main objectives are the development of tools for supporting existing businesses such as the (1) virtual library displaying best practices of rural innovation to give inspiration to other rural businesses, the (2) business model canvas that allows the interested enterprises or entrepreneurs to put in practice their newly designed or modified business model as well as the (3) network creation tool in order to facilitate contacts and initiatives.

Mr Oliva: Polirural is very focused on creating knowledge resources and a learning environment, where rural population, researchers and policymakers come together to solve common problems using tools like text-mining to assess perceived effectiveness of past or planned policy interventions. Furthermore, a foresight study is going to collect the development trajectory of agriculture and its allied sectors until 2040 using several scenarios in which the evolution of rural population occupies a central place. The main goal is to provide tools to policy and decision makers to tackle existing and emerging rural challenges, to empower the rural population and to increase the resilience of rural areas.

Compared to Rubizmo and Liverur which focus primarily on business models and rural entrepreneurs, Polirural and its results focus mostly on the rural ecosystem as a whole through a system dynamic model and foresight analysis. Currently the model is tested and adapted for the 12 pilot regions in the project situated in Europe and the Middle East.

Ms Perello: Ruralization also work close with the topic of the foresight analysis using trend cards describing trends that might affect rural across Europe along with the "inventory of dreams", collecting the rural vision and demands of young people between 18-30 years old.

II.1.6 Main outcomes in terms of knowledge transferred

- It was shown how important the sustainability is for developing the rural businesses as well as the overall local/regional development following a comprehensive idea in terms of social, economic, environmental and institutional sustainability with the support of the relevant stakeholders involved in creating and implementing this common idea.
- The multifunctional approach promoted by the RAIN concept is the leverage to innovate touristic activities in rural areas. The networking between the relevant stakeholders is the key for developing a strong territorial cohesion and exploiting the full potential of the rural community.
- The joint summer school and the overall interaction between projects have proven that all deal with a very similar set of challenges in terms of actually reaching people on the ground, especially in rural areas and particularly with the need to turn complicated ideas into usable tools.

Specific outputs of LIVERUR linked to the experience of the RAIN concept in the LIVERUR pilot regions

D5.2 Testing Pilot Regions Orientations For The Toolbox, <https://liverur.eu/wp-content/uploads/2021/04/D-5.2.pdf>

D5.3 Pilot Impact Assessment, <https://liverur.eu/wp-content/uploads/2021/09/D5.3-.pdf>

D5.5 New Rural Business Model Catalogue

II. 2. Digitalisation of Rural Areas (Session 2)

II.2.1 Composition and objectives of the second session

a) Composition

ROUNDTABLE:

- Clive Peckham, CARPE DIGEM Interreg Project - France
- Dolores Ordoñez, Digital Innovation Hub Balears Island (DIHBAI-TUR) - Spain
- Colm Mc Colgan, European Regions Networks for the Application of Communications Technology (ERNACT) - Ireland
- Giuanluca Brunori, DESIRA H2020 Project – Italy
- Alexia Rouby, DG AGRI – European Commission

MODERATOR:

Emilija Stojmenova, University of Ljubljana – Slovenia

b) Objectives

The main objectives of this roundtable were:

- Point out the importance of digitalization in rural areas
- Highlight the actual situation of digital infrastructure and capacity available to rural businesses and their population
- Discuss best practices done in various projects related to digitalisation and digitisation of rural areas
- Confirming the coherence of the project's results with the long-term vision of the European Commission

II.2.2 Main outcomes in terms of knowledge transferred

c) Digital Services, Skills, Infrastructure and Capacities

Key question:

What are the key aspects of the Digital Innovation Hubs like the DIHBAI?

Ms Ordoñez: Digital Innovation Hubs are primarily tools put into place by the European Commission in order to innovation and digital transformation of the territories and companies. The DIHBAI-TUR is the hub on the Balearic Islands related to the artificial intelligence tourism and agri-food and is thematically synergetic to the LIVERUR RAIN concept in so far as basing most of the interaction of the Hub on the involvement of the relevant stakeholders in the decision making process. Since the touristic sector is so dominant in the region, the hub, at the moment, provides knowledge transfer, technological solutions and development in order to support the tourism operators and the agricultural businesses. Full members of the innovation hub are institutions like food cooperatives, chamber of commerce, university clusters as well as other public and private entities.

The services include concrete examples such as:

- Networking and Synergies
- Business analysis and exchange of best practices
- Capacity Building (for example the use of drones in agricultural businesses)
- Involving stakeholders in funding schemes like EU funded projects
- Connection with infrastructures like Fab Labs or field trips in which digital innovation is displayed and explained

The main challenge to further digitilisation, especially in rural areas is the lack of knowledge and a certain resistance to change for example in the traditional farming business structure. Also there is a gap related to communicating digital progress in a terminology that is translatable and understandable by the end-users. Lastly, some of the existing solutions (for example advanced robotics or bigger sensors) do not fit the needs of smaller farmers and one of the objectives of the DIHBAI-TUR is to adapt the solutions to serve the real needs and demands of the end-users.

Key question:

What is the European Commission or the DG AGRI doing to support service delivery in rural areas?

Ms Rouby: The needs and demands identified in LIVERUR are indeed in line with the information that the EC has gathered. Regarding the digitalization, the EC is favoring the development of the digital innovation hubs across Europe. From the point of view of the EC, more work has to be done in transmitting the benefits of ICT solutions to the rural businesses and convince them of their advantages in cost analysis. A concrete example of the support from the EC are the funded calls and actions such as the RIA framework of H2020 directed at the creation and development of digital innovation hubs, the digital Europe programme or the joint declaration of the ministers of agriculture of the EU member states manifesting the commitment to the support of rural digital innovation hubs as well as digital platforms and interoperability mechanisms coherent with the main outputs of the LIVERUR project.

<https://digital-strategy.ec.europa.eu/en/news/eu-member-states-join-forces-digitalisation-european-agriculture-and-rural-areas>

Key question:**How does a Network like ERNACT can support the digitilisation and digitisation of rural areas?**

Mr Mc Colgan: ERNACT, or European Regions Network for the Application of Communications Technology, was founded in 1991. We are an international network of European regional and city public authorities that work together to access European Union digital technology programmes and funding for the benefit of our areas, companies and universities. The ERNACT network of regions currently has 18 live Digital Transformation projects, involving 50 regions and 60 organisations. We have developed an approach for optimising cooperation in European projects and regions' smart specialisation and digital transformation needs. We share knowledge by implementing international innovative projects related to: Digital Innovation Hubs, artificial intelligence, virtual reality, IoT, public services, energy efficiency, open innovation, eHealth, SMEs, tourism, aquaculture, sustainable communities, rural development.

Regarding the development of ICT infrastructure, ERNACT was able to help bring broadband connection to Donegal, in the Irish countryside. This was achieved by active mediation between the local and regional government, the ICT providers and the stakeholders in the pilot areas promoting public and private funding opportunities and forcing competition on the market to enable more attractive options to the areas.

Key question:**Where are the known gaps in Europe in the digital infrastructure?**

Ms Rouby: This information was gathered and published within the communication on the long-term vision for rural areas. One of the results is that although about 90% of the rural household has access to a broadband connection in 2020 of which only 40% can be considered high quality connectivity broadband internet which are important factors in business activities as well as for overall quality of life.

Key question:**How does the CARPE DIGEM project support regarding digital skills?**

Mr Peckham: 10 partners from 7 countries in peripheral, rural and emerging European regions are collaborating to help each partner develop inclusive digital innovation ecosystems and services that meet the current and future needs of their economies and society to become dynamic players in local and global development. The project will improve its 7 selected policy instruments to help them to become better enablers and deliverers of digital innovation.

CARPE DIGEM will examine how the partners in close collaboration with their regional public, private and community stakeholders, can better communicate and engage their regions in improving strategies for digital transformation, predicting and developing new skills and competencies for the future.

CARPE DIGEM is primarily about how to create functioning and sustainable Digital Innovation Ecosystems (DIGEMs) in regions considered to be outside the digital, economic and social core of Europe, traditional 'receivers' of innovation and change.

CARPE DIGEM will show how we can collectively catalyse, lever, network and expand inter-regional digital eco-systems outside metropolitan Europe, to help provide universal access to the integrated digital solutions and eco-systems our citizens, public administrations and businesses need.

By designing a learning and application 'Loop' at regional and inter-regional levels CARPE DIGEM partners will better achieve their global objective of improving regional economic and social growth trajectories through 'permanent digital evolution and innovation'.

The project will ensure:

- Accessible and wide-ranging knowledge of responsible policy makers and key stakeholders to support and establish sustainable DIGEMS. DIGEMS will ensure that innovative digital products and services that lead to Improvements in Growth, employment and investment and in the quality of life will be delivered.
- Significant improvement to staff, expert and stakeholder skills who integrate territorial needs and models within the wider European digital innovation networks
- Well skilled and equipped digital mediators to enable rural youth, entrepreneurs and the socially/economically excluded to fully benefit from and contribute to digital innovation
- 6 regional DIH working in network under the CARPE DIGEM approach
- 15 new companies exploiting digital tools and services in the area of: Digital education; Healthcare; Creative industry; Tourism; Energy Industrial design and Media
- 50 SMEs supported through Digital Innovation Hubs enhanced or established through projects resulting from CARPE DIGEM
- Digital Innovation projects resulting from CARPE DIGEM

Key question:**Are they enough training programs available for fostering digital skills in rural areas and do they have the same quality compared to the programs offered to people in urban areas?**

Mr Pickham: Rural areas are not generally behind urban areas in regard to availability and quality of training related to digital skills. However, since most rural areas are often covering large physical space as well as consisting of economically poorer area as well there are still gaps. Therefore, some initiatives, even on a governmental level try to support the interconnectivity between the existing digital innovation hubs which are largely responsible and prepare to provide the necessary training while aiming on bring together peripheral urban and rural areas. One key aspect that we detected was the need for bring the training programs directly to the people on the ground, rather than just offering programs in regional capitals or large urban centers. Another recommendation is the inclusion of mediators who work in their day to day business with digital tools in order to facilitate the understanding and the real life use of digital skills for the trainees which in turn tries to create enough digital capacity so that new more mediators will come out of the training sessions so a certain “digital emancipation” is the result.

Ms Rouby: The term and the idea behind “digital emancipation” is very interesting and we will study this in the Commission to see if we can include it within the strategy of digitalisation is something like the upcoming flagship of rural digital futures.

Key question:**How does the DESIRA project deal with the impact of digitalisation in rural areas?**

Mr Brunori: DESIRA aims to improve the capacity of society to respond to the challenges and opportunities of digitalisation in rural areas.

Through a network of 20 Living Labs in the European rural areas, the project will assess the past, current and future socio-economic impacts of ICT-related innovation.

DESIRA will also facilitate a Rural Digitisation Forum to discuss how policies could address the opportunities and challenges of digitalisation.

The project approaches all activities considering digitalisation as a process of social transformation driven by digital technologies. It acknowledges the transformative nature of digitalisation and the impacts it can have in shaping the way rural communities and actors learn, work, travel, interact, etc., acting as a ‘game changer’ for rural territories and sectors.

An important aspect is the difference between digitilisation and digitisation, with the former dealing with the socio-technical process while the latter focuses on the technical process of transforming processes from analog to digital.

During the study, the project found a direct link between the connectivity to broadband internet access and economic growth in rural areas which shows the importance of both the digitilisation and digitisation.

It must be mentioned that digitilisation on the one hand brings more opportunities, better cost-effectiveness and more access to new services, it can also bring the replacement of services and a higher administrative burden and therefore a shift within the structure of the business. This can be observed for example on the farm level where women have been observed to take on more administrative burden due to their gained digital capacity in training programs which on the other side might bring more need for family conciliation or management.

Key question:

What are the next steps in EU policy towards digitilisation in rural areas?

Ms Rouby: One of the major priorities in the long-term vision for rural areas which is meant to structure the process until 2040 by 4 main dimensions:

Stronger rural areas

Rural areas should be home to empowered and vibrant local communities. Enabling both women and men to take active part in policy and decision-making processes, involving a broad range of stakeholders and networks as well as all levels of governance, is key to developing tailor-made, place-based and integrated policy solutions and investments.

Innovative solutions for the provisions of services should be developed, making the most of the possibilities offered by digital tools and encouraging strongly social innovation.

Connected rural areas

The further development of rural areas is dependent on them being well connected between each other and to peri-urban and urban areas. This makes them easier to reach while improving access to a wider range of services for local communities.

Maintaining or improving public transport services and connections, as well as deepening digital infrastructures, are essential to ensure better-connected EU rural areas.

More resilient rural areas that foster well-being

The preservation of natural resources, the restoration of landscapes, including cultural ones, the greening of farming activities and shortening supply chains will make rural areas more resilient to climate change, natural hazards and economic crises.

As providers of services that protect ecosystems and solutions for carbon neutrality, rural areas have a key role to play in the sustainable bio- and circular economy.

Prosperous rural areas

Rural areas can become more prosperous by diversifying economic activities to new sectors with positive effects on employment, and improving the value added of farming and agri-food activities. The diversification of economic activities should be based on sustainable local economic strategies including measures that make their environment attractive to companies and extend digital literacy. This will contribute to retaining a fair share of the value generated by agriculture in rural areas.

https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/long-term-vision-rural-areas_en

The commission invites all projects and initiatives and their policy recommendations to take part in this process and find proper and centralised channels to reach their target groups.

Those channels will be:

The Rural Pact – strengthened governance for EU rural areas. A Rural Pact will be developed with all levels of governance and stakeholders supporting the shared goals of the vision which are proposed in this Communication. The Pact will provide a common framework for the engagement and cooperation of a wide range of actors at the EU, national, regional and local level.

EU Rural Action Plan. Testifying to the Commission's renewed commitment to rural communities and the development of rural areas, this communication proposes a Rural Action Plan articulated around flagship initiatives. Each one of them will bring different EU policy areas together to deliver on the vision, and its shared goals such as the flagships for a rural revitalisation platform, rural digital futures or entrepreneurship and social economy in rural areas.

II.2.3 Outcomes linked to LIVERUR results

- Having revised and studied the plans and strategies of the European Commission towards digitisation in rural areas, now it is up to projects like LIVERUR as well as all the projects described by our participants to be the ones to contribute to the implementation of the long-term vision for rural areas since the experience gathered and the best practices showcased within the projects have brought invaluable input for shaping future policy strategies for all of rural areas in Europe.

Specific outputs of LIVERUR linked to digitisation and building of digital skills and capacity

Article: LIVING LABS FOR RURAL AREAS: CONTEXTUALIZATION OF LIVING LAB FRAMEWORKS, CONCEPTS AND PRACTICES (2019-07-11) Veronika Zavratnik, Argene Superina and Emilija Stojmenova Duh. Faculty of Electrical Engineering, University of Ljubljana., <https://liverur.eu/wp-content/uploads/2019/09/sustainability-11-03797.pdf>

D5.2 Testing piloting areas orientations for the Toolbox, <https://liverur.eu/wp-content/uploads/2021/04/D-5.2.pdf>

D6.1 Report on the roundtables, <https://liverur.eu/wp-content/uploads/2020/05/D6.1-Report-on-the-roundtable-UNIDO.pdf>

D6.3 Report on the training activities, <https://liverur.eu/wp-content/uploads/2021/10/D6.3-Report-on-the-activities.pdf>

II. 3 Presentation of the main outputs of LIVERUR (Session 3)

II.3.1 Composition and objectives of the third session

a) Composition

ROUNDTABLE:

- Karin Heinschink, Federal Institute of Agricultural Economics (BAB) – Austria
- Thomas Böhm, Regionalmanagement Burgenland (RMB) – Austria
- Jelena Mazaj, Centro studi e iniziative europeo (CESIE) – Italy
- Daniel Capitán, Wellness Telecom – Spain
- Martina Occelli, University of Pisa / CLEOPA – Italy/Spain
- Montse Guerrero and Jesús Cia, JOSENEA BIO – Spain
- Kevin Collins, Open University UK – United Kingdom

MODERATOR:

Wolfgang Haider, Centre for Social Innovation (ZSI) – Austria

b) Objectives

The main objectives of this roundtable were:

- Present and explain in detail the most relevant project outputs of LIVERUR
- Provide practical examples of the use of the LIVERUR tools, their benefits and their relevant target groups
- Discuss the LIVERUR outputs regarding the policy relevance and formulate policy briefs on the basis on the experience gathered
- Highlight how the stakeholder involvement was accomplished and how capacity building was addressed within LIVERUR
- Give best practice examples of the successful exploitation of the RAIN concept by external initiatives

II.3.2 Main outcomes in terms of knowledge transferred

c) Innovation and sustainability in rural businesses

Key question:

What is the LIVERUR RAIN concept and how can it help rural businesses in Europe?

Ms Heinschink: RAIN stands for Regional Circular Living Lab. Circular as in circular economy and Living Lab as in the methodology centered in the stakeholder involvement and user centered approach. Its goal is it to provide a structure to develop a new business model or even to improve existing business models. It serves in the creative phases as well as a support to formulate concrete action plans. As a general target group, RAIN is designed to be of service for all rural businesses or entrepreneurs.

More concretely it works by identifying a problem and a solution but having to recognise that the solution is influenced by many different factors, many times of external nature. Those factors can be positive or negative for the individual business models, as well as have strong or weak influence. However, in order to reduce the complexity of the factors and their influence, LIVERUR has studied and structured them in the RAIN concept which gathers most of the elements found in our initial business model analysis in rural Europe and has combined them in the follow way.

The RAIN concept integrates three layers:

RAIN Core Elements capture the essential parts of a business model.

RAIN Principles to consider in each of the RAIN elements, developed in the course of the research project LIVERUR.

RAIN Real Life Setting, a structure to get clear about the project environment which enables or limits the project scope.

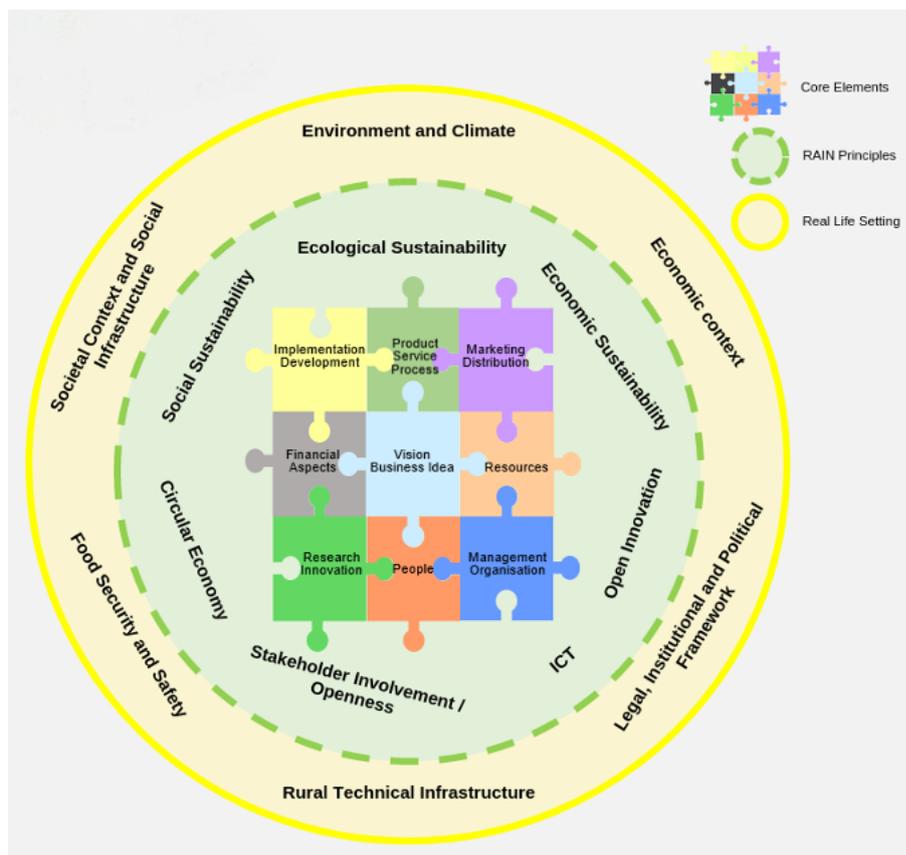


Figure 4 - D4.3 LIVERUR System of the RAIN Concept with three layers and their elements

In order to make this theoretical concept useful for the target group, and more specifically make it useful for the diverse business landscape between the European rural areas, LIVERUR created the Real-Life Settings which in practice work in this way:

- Workshops with relevant stakeholders are organised in which through brainstorming sheets it is decided in which of the settings the existing or future business model is to be embedded.
- The relevance of the factors and settings are determined by the assessment report
- Concrete measures are detailed in the action plan, dealing with questions like: What is unchangeable? What is manageable? How to deal with them? Who is going to achieve which action and by when?

Each of the actions should in itself answer the question on how it contributes to the RAIN principles, for example how something supports the transition to circular economy, how something makes the business more economically or ecologically sustainable, etc.

One of the examples found within the LIVERUR project was from the Italian Pilot Region in the Valle del Cavaliere which identified the lack of public transportation and therefore the limited access of the rural population to basic services. Based on this identified problem, the project was built centered around the creation of a shared voluntary public transport system. Starting the exercise using the RAIN principles, their worksheets look like the following:

RAIN Principle	What? Goals	How? Measures	When? Timeline	Who? Responsible
Social sustainability	Keep the system up for as long as needed	Foster commitment of voluntary drivers. Find a large enough crowd of voluntary drivers so that the service is not too strenuous. Sort out insurance for drivers so that they are covered when something goes wrong.	15 Sep 2021	Name
Circular economy	No empty runs	Coordinate pickups and deliveries.	ongoing	Name
	Repair	Replace only what cannot be repaired.	ongoing	Name
	Recycle, reuse	Find an alternative use for empty cardboard boxes.	15 Aug	Name
Stakeholder involvement	Understand the actual needs of villagers	Workshop in which all villagers can share their ideas, observations etc. regarding the problem at hand.	31 Aug 2021	Name
ICT-enabled environment	Team of drivers is well coordinated.	Start a chat group for the drivers to sort out availability for service, short-term replacement, observed problems and possible solutions etc.	31 July 2021	Name

Table 2 - Real Life Settings implemented in the Valle del Cavaliere (Source: Federal Institute of Agricultural Economics – BAB)

In order to lay the foundation of a functioning RAIN concept, several steps should be considered:

- Appoint a “Living Lab Coordinator”
- Weigh between complexity and limited resources/effort
- Keep it simple or more detailed
- Implement the RAIN principles eventually in all RAIN core elements or just in some?
- Keep in mind the diversity within Living Labs, even with different perspectives you need common understanding
- Be aware that the worksheets and templates are “incomplete snapshots” which might require further work to fill in the gaps

Key question:

So how does the RAIN concept work in practice, for example in the Austrian LIVERUR Pilot Region in the Südburgenland?

Mr Böhm: Our Pilot was centered around a protected nature park, which orchards, meadows and vineyards. The main business concept was created about the “Kellerstöckl”, which are old wine production infrastructure which serve as the gastronomic and hospitality part of the touristic offer. The aim of our living lab is to set the structures for continuous learning and improving an initiative for nature tourism and sustainable tourism, based in this protected area with the small and micro enterprises, and to use and to secure these historical buildings in this landscape, and to set a cooperation among the owners of wine cellars cooperate with our different regional producers with the tourism operators, and the service providers for integrated sustainable regional development.

The major challenges in this region, this is a region on the border as well as an extremely poor transport connection. There is problem with migration as well as with few job opportunities, and the untapped tourist potential. We found in this protected area more than one thousand of this historical wine production buildings, and only a few of them are used for tourism or even used anymore for any other thing. And now this initiative is to reach in a kind of resort, which means bringing together all the treasures of the region that means work with all the SMEAs, small farms and with the owners of this old vine cellars to develop this idea of a more sustainable tourism in in this region.

As a first step to using the RAIN model, the region organised a training of trainers workshop in order to increase the number of stakeholders familiar with the methodology and to increase the impact on the ground. Further workshops followed, introducing step-by-step the RAIN elements bringing together selected stakeholders for each of the session to foster the joint collaboration:



Figure 5 - Organization map of the Living Lab "Südburgenland" (Source: Regionalmanagement Burgenland)

An association has been established for the restoration and preservation of the vine cellars and it is planned to create and incentivise further businesses to manage the touristic offer of the region.

The activities during the LIVERUR pilot implementation can be summarised in the following list:

- Funding for the renovation of the old wine cellars
- Implementation of Train the Trainers workshops for organization development, marketing/sales, addressing building blocks of RAIN model in general
- Management of workshops with regional/municipal stakeholders
- Creation of a new agricultural business through the Nature park of the vineyard conservation
- Development of new products: nature park apple juice, grape juice
- Development of a sponsorship model to secure the management of the areas

Key question:**What are the benefits of the RAIN platform, who is it for and how can it be used?**

Mr Capitán: During this project, partners are implementing pilot Living Labs and, for that reason, several tools were put together.

RAIN Platform brings here different tools that will help to enhance your business model in rural areas based on evaluation, design and comparison.

These tools, in combination with the RAIN Community, have been designed to help entrepreneurs, policy makers and other stakeholders work together to develop a viable and sustainable business model in the rural areas so as to achieve win-win results.

The RAIN platform gathers three of the most useful tools and outputs of the LIVERUR project:

- RAIN Concept - Design innovative business models in rural areas!
- Business model selection: Evaluate your business model!
- Toolbox: Explore, select and co-create!

LIVERUR created also some audiovisual aids in order to facilitate the use of the platform and to increase its usability for the users. The most important video might be the tutorial on HOW TO USE the platform itself and which explains its main purpose and target groups:

<https://www.youtube.com/watch?v=66WI7i4kTkk&t=8s>

As the RAIN concept was explained in the roundtable before we can go directly to the **Business model analysis**:

The business model is the basis of profitability. The best way to improve your business performance is to improve your business model. But first of all, this begins with analysis. This tool can help you evaluate your business model. We bring here the LIVERUR Project Selection Methodology that will help you to self-assess the main areas connected to the Living Lab business model applied in rural areas. When you complete the questionnaire, you will receive feedback and some hints and resources about the area you should focus on, in order to design a successful business model.

Business model analysis questionnaire

Criteria LIVING LAB APPROACH:

1. User-centered: Are the users engaged in the process of innovation? *

- No users involved
- Users partly involved
- Users involved during the whole process

2. Multi-actor approach: Are relevant stakeholders (e.g. from government, academia, citizens, business) involved in the process? *

- Only operator(s) involved
- Various stakeholder groups involved
- All relevant stakeholder groups involved

3. Level of engagement and participation: In which form does the co-creation with stakeholders (included users and policymakers) take place? *

- Information and consultation
- On/off participation (co-creation only in particular stage or stages)
- Partnership, shared decision-making power through the whole process

4. Openness: Are the activities open for new partners, users, investors, etc. during the whole process? *

- Openness for new actors is very limited
- Openness only for certain actors
- Openness during the whole process to everyone

5. Real-life setting: Do the activities take place in the real-life use context? *

- No real-life context, only virtual
- Partly real-life context
- Full real-life context

6. Technological integration: Do the activities foster new technological developments? *

- Application of standard technologies
- External development of adapted technologies
- Internal development of adapted technologies

Criteria ECONOMIC SUSTAINABILITY:

7. Innovation or type of innovation: Which type of innovation follow the activities? *

Figure 6 - Business Model Analysis Questionnaire RAIN Platform

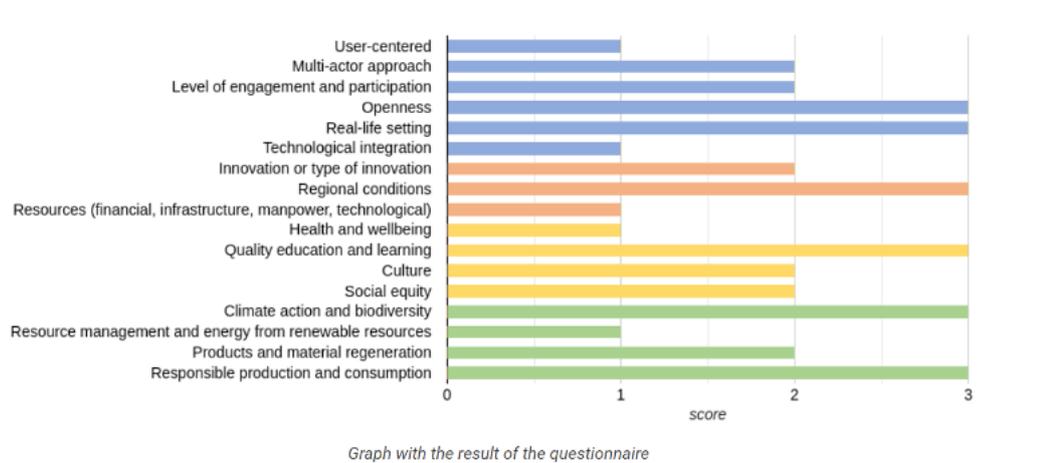


Figure 7 - Results Graph of the Questionnaire RAIN Platform

LIVING LAB APPROACH

ECONOMIC SUSTAINABILITY

SOCIAL SUSTAINABILITY

ECOLOGICAL SUSTAINABILITY

No unique definition is present for this terminology. LIVERUR will adopt the most recent and flexible. Living Labs are user-centred, open-innovation ICT enabled ecosystems often operating in a territorial context integrating concurrent research and innovation processes within a quadruple X (Government, Industry/Agriculture, People, Academia) public-private-people partnership.

The strategic development of a rural living lab is based on establishing a sustainable stakeholder partnership where users, policy-makers, companies, consumers and researchers enter into agreements on the basis of which they may engage in longer term collaboration (LIVERUR Grand Agreement 2018).

The essence of the user-driven approach is the direct involvement of users in the development processes of products and services. This human-centric approach considers humans as the source of innovation, not just as an object for testing and feedback.

You can find resources to improve this area in your business model here:

- [Living Lab: an open and citizen-centric approach for innovation](#)
- [Urban Living Labs, A Living Lab Way of Working.](#)
- [Open Innovation: Researching a New Paradigm.](#)
- [LIVING LAB: user-driven innovation for sustainability.](#)

Figure 8 - Recommendations following the results of the questionnaire RAIN Platform

The LIVERUR **toolbox** is a 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. You can choose which tool or tools to use according to your needs and goals.

The toolbox was inspired by good practices from other contexts. It comprises ready to use tools that you can easily put into practice. The vast majority of these tools are not original and have been imported from other toolboxes. They have all been widely tried and tested, proving their usefulness and simplicity.

This toolbox was created specifically for LIVERUR. Therefore, it is guided by the project’s philosophy and it is based on the main theoretical principles of Living Labs, namely the Harmonization Cube.

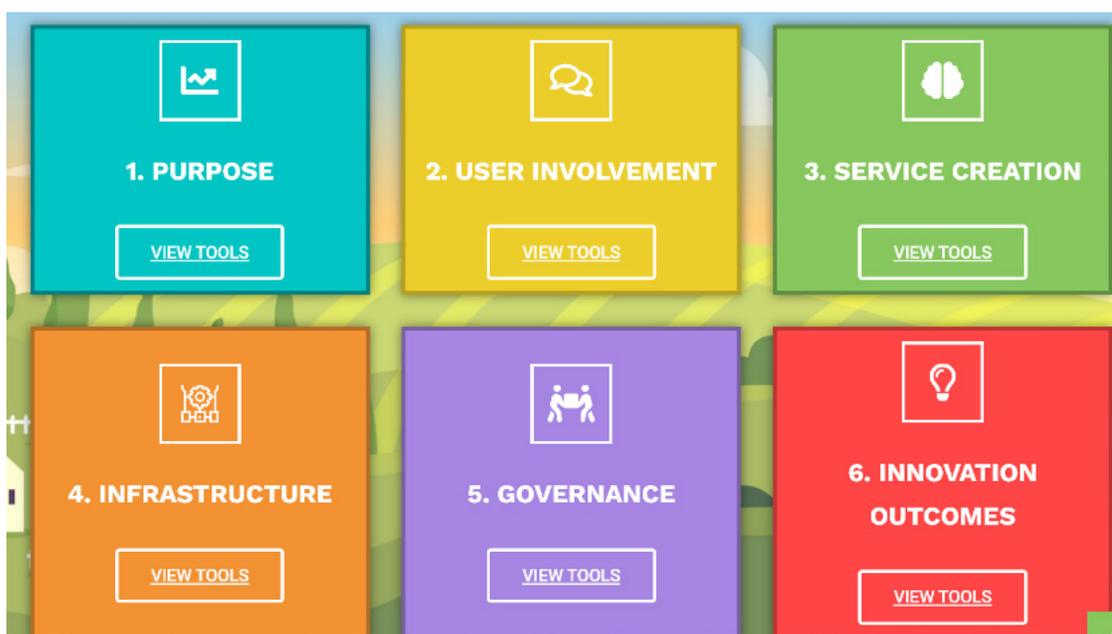


Figure 9 - The 6 main phases of the LIVERUR Toolbox RAIN Platform

Purpose

- [1. Purpose](#)
- [2. User Involvement](#)
- [3. Service Creation](#)
- [4. Infrastructure](#)
- [5. Governance](#)
- [6. Innovation Outcomes](#)

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.

Figure 10 - Guidance on the purpose of the Tools RAIN Platform

Mind Map

.....
This is a very simple way of mapping out your ideas, based on themes or key-words. It will result in...

[Learn more](#)

Problem-Solution Fit

.....
The Problem-Fit Solution is a practical tool to translate a complex problem into a solution that fits patterns...

[Learn more](#)

SWOT Analysis

.....
SWOT Analysis is used to evaluate an organization's or project's competitive position...

[Learn more](#)

Theory of Change

.....
Using the Theory of Change tool is like designing a roadmap, with a very strong focus on the ...

[Learn more](#)

Living Lab Worksheet

.....
It is an adaptation of the start-up accelerator worksheet, prepared by Nesta, to the Living Labs' context...

[Learn more](#)

Figure 11 - Templates for Tools of the Toolbox RAIN Platform

Furthermore, the LIVERUR project has developed several helpful materials, in the MOOC (Massive Open Online Courses) which aims to build capacity regarding key elements of the project, which together with external open learning material can be found freely accessible on the RAIN platform: The MOOCs itself deal with: Communication and the setting up of the LIVERUR workshops, the RAIN platform and its usability and the use and benefits of the LIVERUR Toolbox:
<https://rainplatform.wtelecom.es/liverur-moocs/>

Conclusion:

The RAIN platform really shows the different aspects and the richness of the services that can be accessed by the RAIN concept and the extensive knowledge pool, which is accessible to people working on entrepreneurial ideas or rural development projects, or any type of innovation in an ecosystem setting. We think it provides a good overview as well as a link between the practice and theory and how we put it together on the RAIN platform. As we have looked now a bit more of the practice part and theory part we have generated a fair amount of insight on how we want to share and bring out knowledge that we have created in the project to the stakeholders and end-users in rural Europe.

Key question:

What are the policy aspects of LIVERUR and what are the recommendations based on the results of the project?

Ms Occelli: It is not that easy to try to combine all the complexity and the many information that you have heard before, when it comes to the RAIN model, as well as to the RAIN platform to the trajectory of the sustainable transition of rural areas, which is ultimately a policy trajectory at the European level.

Related to innovation it is an interesting aspect, because most of the people think that innovation is happening in dense and populated area when instead, they happen as well in rural area. Quite marginalized, often they are the heart of a new type of innovation, which is more circular and more connected to the Living Labs. There is actually no position between urban areas and rural areas and some of our pilots will show that clearly. So there is actually no need to underestimate the potentiality of rural innovation, also in marginalized area, rural innovation policy as it is intended at the moment that by the policymakers in the practitioner is involved in three main aspects:

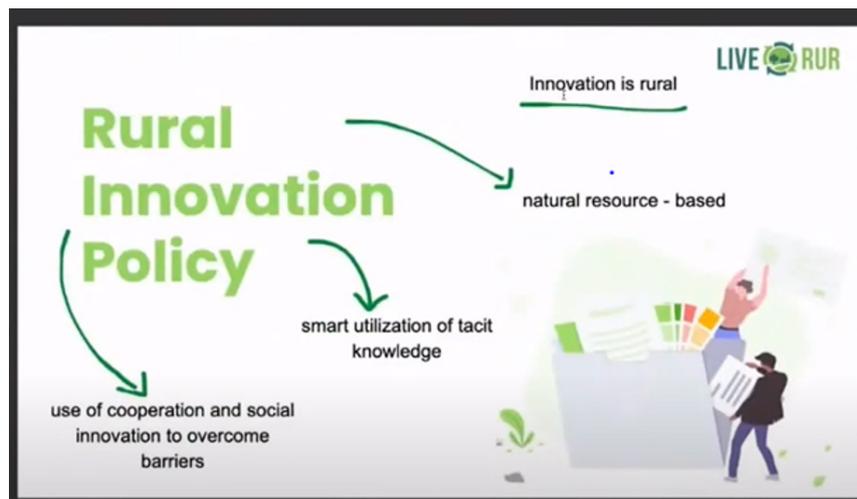


Figure 12 - Rural Innovation Policy Maps (Source: Cleopa GmbH – Martina Occelli)

So, in fact cooperation and social innovation, which is intrinsically in the nature of rural societies can be used to boost and nurture solutions to barriers that are identified.

What have we learned regarding the sustainable transition of rural areas during LIVERUR. Well, we have learnt a few lessons, and the first one that really strikes me is that rural entrepreneurs are often facing a double disconnection. The first one is that a disconnection given by the marginality of the area, it can be a geographical disconnection, but it can also be an ICT related disconnection a technological gap or a knowledge gap, a lack of interaction with local universities, rather than lack of inputs in general is disconnection, which result into a physical marginalization, or a financial one. However, when it comes to the disconnection, we have seen another one, which is the one with the local actors in the territory, developing the Living Labs that we, as we have done it in the past few years, we realise that sometimes the local actors that do not communicate with each other. Living Labs were quite an interesting exercise, because sometimes people were in the physical places or not disconnected physically, but disconnected, in terms of in terms of the mutual opportunities that one actor can generate for the other actors.

The second lessons that we have learned was quite a shock initially. I mean we always intended to address something more related to climate. But then we had quite a strong shock, which is actually health related and it was the pandemic, so it actually emerged that some lessons also from that event to the first one is that rural areas showed the strength during the pandemic and one of them was that our LIVERUR pilot partners actually reported that some of the products were valued during the pandemic because they could sell them directly.

However, with there also were weaknesses of course, and one of that was deeply related to the fact that that people in the rural areas and business entrepreneurs were not so easy for example but not so easy to switch from a physical business to an online, kind of business to for example, online selling. So also, in that shock we learned that sustainable transition could mean that you need to also move towards a higher digitalization.

Then we learned the value of networking and co-creation towards sustainable transition, none of our pilot actors could have made the transition that we are evaluating in our policy brief at the moment, without the work, and the network, which is quite interested they are two words nested into one another.

The other interesting lessons that RAIN model underlines for the sustainable transition and in general what we have learned for a sustainable transition of our private area, is that it can be an environmental sustainability, and it is actually extremely welcome of course, but nothing can hold up without an economic sustainability as well. So LIVERUR was meant to create a business model set, and it was exactly in that direction that we needed to work, not simply to increase the environmental and social sustainability of the system, but also the competitiveness and economic sustainability, because if rural entrepreneurs don't see their business grow, they might just leave the rural areas, which is something we learn quite immediately. And finally, when it comes to sustainable transition, we have learned that that the value chain as it is at the moment is changing, so also finding actors, outside of the traditional value chain has become increasingly important. They can be new types of customers like the Nomad Digital entrepreneurs, rather than app-based business model, they can be utilised by rural entrepreneurs to boost their activities and transit towards a more sustainable system.

How LIVERUR can support all this different environment? LIVERUR is based on one key concept which is the Regional Circular Living Lab Business Model, which is quite complex to say, but it is quite easy to grasp. Rural innovation must be local to work, and all the RAIN model toolbox pieces, and the platform itself, are design to engage all the relevant actors at the local level. Then if you are interested, you can export or upscale your successful story for example in the RAIN community, but the first thing is to highlight, understand that, and co-create with the local people and local actors in your value chain. Then of course rural innovation must be green since we are facing tremendous climate challenges and we can't help ourselves to think that the first phase is the circular economy. So, all the RAIN models and all the RAIN principles work in a circular economy perspective, we invite you in every single step of our tools to use your resources in an efficient way. And as an intrapreneur in the rural area, sometimes, it is not that obvious. So, therefore sitting down in one of the LIVERUR workshops and co-create with the instruments have been proven quite powerful.

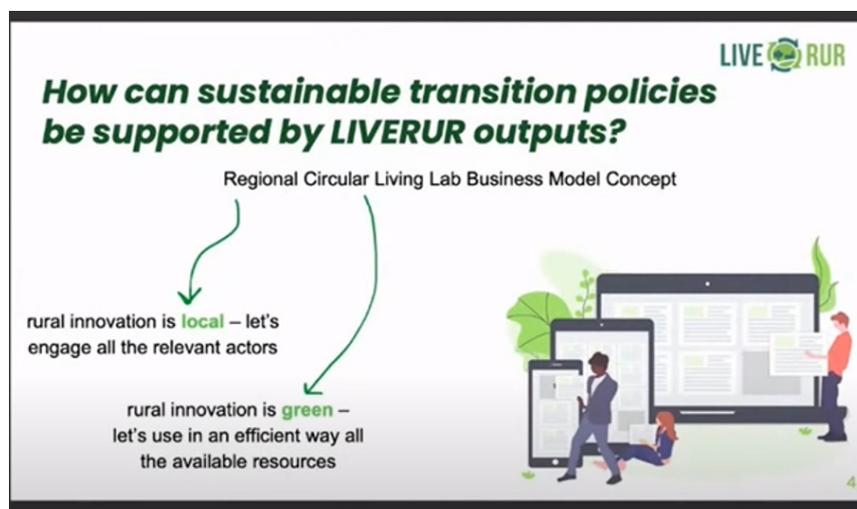


Figure 13 - Support of Sustainable Transition Policies by LIVERUR_1 (Source: Cleopa GmbH – Martina Occelli)

Rural innovation is also social we talked about that rural areas, which are an intrinsic knowledge fabric kind of have different notions. So, we do not want the sustainable transition to be just an environmental or an economic one. But we want that to be also just the transition, rural societies in our perspective, needed to retake the possibility of producing goods that are valuable, also because they have a cultural and it is undeniable the fact that rural areas have a specific culture which can be find nowhere else. In this perspective that the Living Lab approach putting out together the different actors is cultivating the cultural and social, and also integrating elements of our model. And finally, the business part. So, every step of a LIVERUR model as well as the RAIN platform and the overall RAIN concept, everything is also developing the perspective of making the business of rural entrepreneur competitive so at the end we want to sell a product, which is fine, but which is also well placed on the market and we have some very good examples in different pilot areas of our project.

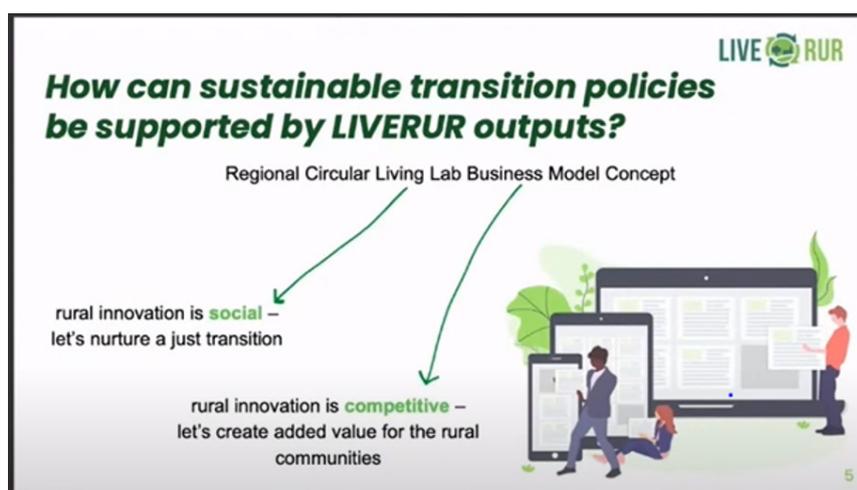


Figure 14 - Support of Sustainable Transition Policies by LIVERUR_2 (Source: Cleopa GmbH – Martina Occelli)

One of the examples for a transition of the business models during the pilot actions of the LIVERUR project we, the Living Lab in the Azores, Portugal:



Figure 15 - Case Study LIVERUR Living Lab Azores (Source: Cleopa GmbH – Martina Occelli)

Key question:

What role did capacity building play in LIVERUR and what were the related outputs of the project?

Ms Mazaj: I would like to concentrate my conversation on two main sections, which are dedicated to the representation of their capacities, which kind of rural innovation can manage, and at the same time to summarise again tools which LIVERUR offer to the community and to the researchers and to the practitioners in the in the field of rural development. So first of all I would like to say that, according to the statistics as you may know, rural areas are represented half of European territory, but at the same time only 20% of population. However, we know that this kind of territories, they are, the less favored regions, and at the same time represent very low GDP according and compared to other European average numbers. So, these underlines that there are a lot of challenges in this territory, but in the meantime rural areas are very essential for sustainable development of circular economy and thus innovative. A pathway should be found to support innovation potential in the nowadays more challenging environments. So according to us, we believe that global innovation should be focused on three main directions, they are linked to the fostering transmission and fostering well-being and prosperity in this territory. At the same time, we need to have capacities, and we need to build sustainable communities. And what is also very important is to underline that we need to create strong links between the real world, and over characters, that's based on our previous research and consultation with stakeholders, we concluded that we provide four main drivers for library innovation that will have innovation and growth characteristics:



Figure 16 - Capacity Building towards Rural Innovation (Source: CESIE)

The results support the territorial capacities development, and the capacities, which lead to organizational, personal skills and competencies. So, again, based on our research and the early phase of discussion with users we can define that innovation in rural areas is strongly linked to the debate about the circular economy, and dealing with the radical changes, particularly in the way how their sources are managed shared between the different knowledge actors, and thus inspiring, an open collaborative approach to innovation and technological development.

Therefore, LIVERUR detected the need for creating capacity and based on the following four subcomponents:

1) The four main pillars of LIVERUR to be addressed in rural innovation

Environment and Resilience	Resource efficiency efficacy and management	Competitiveness of SMAEs & rural value chains	Openness to new markets and technologies
The 4 pillars of LIVERUR			

2) The organisational, contextual and technological fundamentals of Rural Living Labs

User involvement	Infrastructure	Service creation	Methods&Tools	Innovation outcomes	Governance
Organisational, contextual and technological fundamentals of RLLs					

3) The main principles of the Circular Economy

Sustainability	Customer needs	Commercial viability	Applications	Scalability	TRL
The Circular Economy main principles					

4) The adaptation of the Open Innovation's four main headings

Finance	Process	Offering	Delivery
Open Innovation models in Circular Economy			

Figure 17 - Model and sub-components of the Circular Rural Living Lab (Source: CESIE)

I just would like to underline that there is the main product which we're offering to our stakeholders and to our external interest group is to test the RAIN platform, which represents their interest and can support different stakeholders such as entrepreneurs and policymakers in development of circular economy solutions and support or to foster supply and value chain development. Through the wide of tools collected on the RAIN platform we present a lot of different opportunities to evaluate your business model, or to become part of the RAIN community. At the same time, you will find best practices of different territories which propose different elaboration and collaboration tools for the creation and incorporation and establishment of between different stakeholders. To summarise, I would like to say that the project is really useful regarding their results, and I would like to invite you to look for two types of outputs of LIVERUR. The outputs which can be interesting of course for businesses for other projects for initiatives and for local stakeholders, how to create a Living Lab, how to force the innovative process in the rural areas, how to address your circularity and sustainability. In the process, but at the same time we provide different scientific outputs, and we invite research community to contribute to our debates about the LIVERUR project outcome, outputs, and to see how this topic can be developed in the future. <https://liverur.eu/results/>

Key question:

How did you as an external initiative make use of the LIVERUR results?

Mr Cía and Ms Guerrero: JOSENEA BIO is a socio-labor insertion company (Social Economy) that for more than 20 years he has worked to create a place where people at risk of social exclusion can prove their worth through your activity work in rural environment. The main characteristic if JOSENEA are:

- Organic farming or aromatic and medicinal plants
- Environmental services and organic gardening
- Agri-food industry of dietary supplements packed under the JOSENEA label for global market distribution
- Tour services of the cultivation fields and shops
- Industry of organic waste processing for the elaboration of "A" class compost suitable for organic agriculture

It is a physical space of reference in the experimentation in Bioeconomy and improvement of natural capital, which wants teach others what you have learned and want to continue learning.

Their strategic objectives are:

Social Innovation: bring the needs of the users and get content co-design, products and services, their testing and validation. The personal enrichment as a starting point.

Rural and Circular Innovation: ensure that all the processes, products and services developed provide a positive impact on the environment, the environment and the regeneration of the territory and people for a resilient rural development and with future.

Business Innovation: collaboration as basis for the creation of new companies and transformation of conventional companies towards more circular processes, both in the cycles biological or bioeconomy, as in the cycles differentiated technicians in a circular economy.

Their specific objectives are:

Specific objectives:

1. Offer a space for training, creation and business model testing based on the circular economy that ensure the resilience of the rural environment and the regeneration of resources through the Living Lab methodology: co-creation, exploration, experimentation and evaluation.

2. Boost the relationship between companies - university, especially start -ups, SMEs and large companies with the administration public and with the end users of the products and developed services.

3. Creation of local employment, especially oriented to the personal development of people at risk of social exclusion and of the enterprising people and leaders' business.

4. Implement innovation methodologies open at all levels (processes, products, people, networks and members' organization and business models).

5. Be a meeting point for all social, economic agents and environmentalists of Navarra for the exchange of experiences and knowledge.

6. Incubate and promote economic projects circular for the dispersion of practices in other territories

7. Raise awareness, inform and train on the results obtained in experimentation to through physical visits and virtual at installations and the development of experiences pilots.

8. Management of space under a 4P, agreement of public collaboration -private -persons following the principles of innovation since the user.

9. Create the infrastructure and contents didactics of the first Circular Economy Park in Europe that can be visited in rural areas.

10. Streamline group creation multidisciplinary promotion of the Economy Circular in Navarra.

JOSENEA BIO followed the RAIN concept and implemented the RAIN core elements and well as the RAIN principles in the actions:

During the following years, JOSENEA BIO in cooperation with the stakeholders from the region of Navarra and the LIVERUR project will continue implementation their Living Lab with the goal of creating a place of co-creation, idea generation and dissemination of circular economy to continuously create new content, products and services of all kinds to promote a change in their stakeholders' conscience, consumption and production, led by example.

Conclusion:

It is really positive to see how the RAIN concept approaches that the LIVERUR project developed is already being exploited and used by other pilot areas by other regions and actors that which different focus areas, showcasing on the one hand the diversity of the rural areas across Europe but on the other hand also proved the versatility of the developed methodology and tools within the LIVERUR project that allows different approaches to realise their own versions of functioning Living Labs.

Key question:

How did the Agri-Link project deal with the implementation of Living Labs and what are your outcomes and recommendations?

Mr Collins: The goal of AgriLink – Agricultural Knowledge: Linking farmers, advisors and researchers to boost innovation, is to stimulate transitions towards more sustainable European agriculture by furthering the understanding of the roles played by a wide range of advisory organisations in farmer decision-making and enhancing their contribution to learning and innovation. This will be achieved by a consortium of 16 partners from 13 countries working together to implement cutting edge research which develops a number of innovative approaches including ‘micro-AKIS’ analysis in 26 Focus Regions, analysis of the governance of farm advisory systems, socio-technical scenario development, and six ‘Living Laboratories’ (Living Labs) where farmers, advisors, and researchers develop and test together innovative advisory tools and methods.

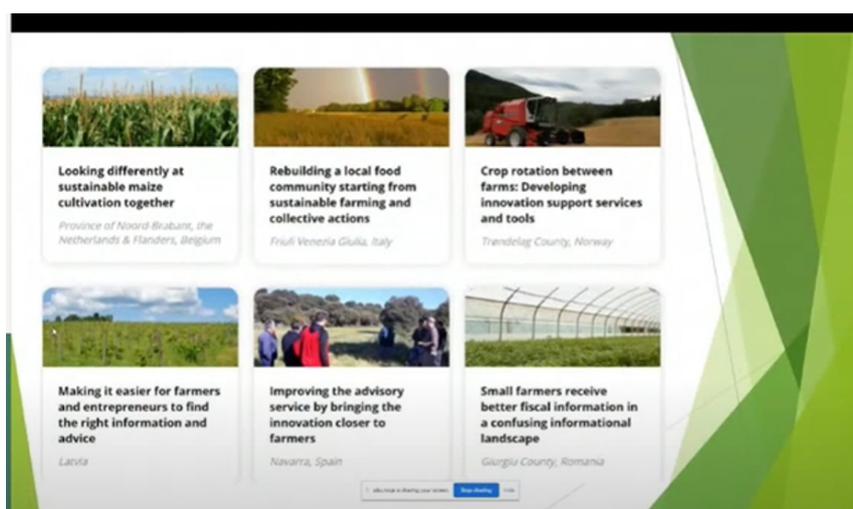


Figure 18 - Living Labs in the AgriLink Project (Source: AgriLink H2020 Project)

At the academic level, the specific objectives of AgriLink are to:

- Develop a theoretical framework utilising a multi-level perspective to integrate sociological and economic theories (with inputs from psychology and learning studies) and assess the functions played by advisory organisations in innovation dynamics at multiple levels
- Test how various models of (national and regional) governance and funding schemes of farm advice i) support (or not) farmers’ micro-AKIS; ii) sustain the relation between research, advice, farmers and facilitate knowledge assemblage, and; iii) enable evaluation of the (positive and negative) effects of innovation for sustainable development of agriculture
- Develop and utilise cutting-edge research methods to assess new advisory service models and their innovation potential
- Identify thoroughly the roles of the R-FAS (regional FAS) in innovation development, evaluation, adoption and dissemination in various EU rural and agricultural contexts
- Assess the diversity of farmers’ use of knowledge and services from both formal and informal sources (micro-AKIS), and how they translate this into changes on their own farms

- Assess the effectiveness of formal support to agricultural advisory organisations forming the R-FAS by combining quantitative and qualitative methods, with a focus on the EU-FAS regulation and by relating them to other findings of AgriLink

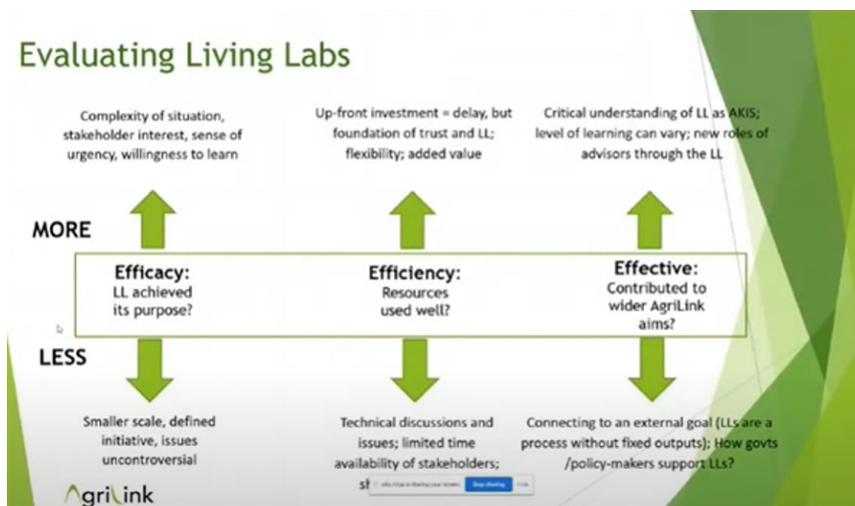


Figure 19 - Evaluation Matrix AgriLink (Source: AgriLink H2020 Project)

At the applied level, the specific objectives of AgriLink are to:

- Develop recommendations to enhance farm advisory systems from a multi-level perspective ranging from the viewpoint of farmers’ access to knowledge and services (micro-AKIS) up to the question of governance. This will include recommendations for measures to encourage advisors to utilise specific tools, methods to better link science and practice, encourage life-long learning and interactivity between advisors
- Guarantee the quality of practitioners’ involvement throughout the project to support the identification of best fit practices for various types of farm advisory services (use of new technologies, methods, tools) in different European contexts, and for the governance of their public supports
- Through interactive sessions with policy makers and advisory organisations build socio-technical transition scenarios for improving the performance of advisory systems and achieving more sustainable systems. This process will include exploring the practical relevance of AgriLink’s recommendations
- Test and validate innovative advisory tools and services to better connect research and practice
- Develop new learning and interaction methods for fruitful exchanges between farmers, researchers and advisors, with a focus on advisors’ needs for new skills and new roles

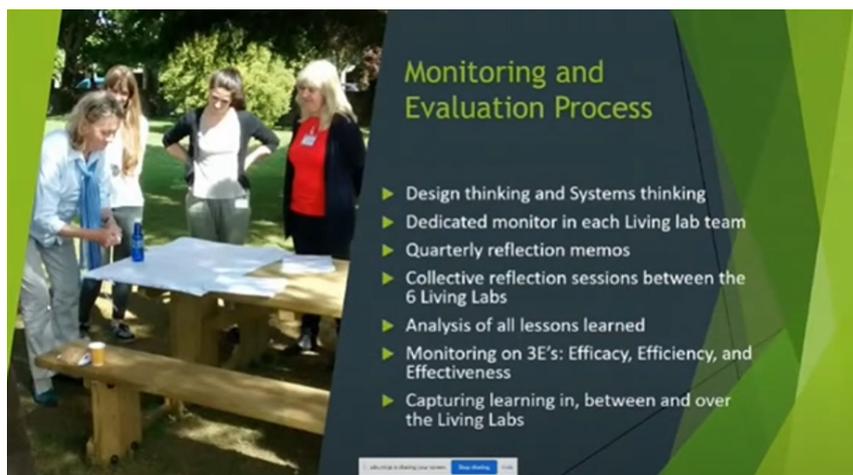


Figure 20 - Monitoring and Evaluation Process AgriLink (Source: AgriLink H2020 Project)

The AgriLink (Agricultural Knowledge: Linking farmers, advisors and researchers to boost innovation) project has high ambition to make a significant and meaningful contribution to enhancing the role of agricultural advice and associated advisory services/providers in farmer decision-making and the transition towards more sustainable European agriculture.

The following impacts can be expected from the AgriLink project:

- Improved understanding of farmers' decision-making processes across the EU and the impact of advice/advisory services on the sustainability of agricultural practices
- A set of good examples and best practices for well-connected and effective advisory systems, focusing on ways of preserving practical knowledge in the long-term and including identification of success elements and possible novel roles for advisors with a view to boosting innovation and improving networking
- Suggestions for governance models and public policy mechanisms, contractual arrangements and appropriate funding instruments providing effective support for improved interactivity of advisors, enhancing innovation-driven research and advisory services to support the transition to more sustainable and climate-smart agriculture
- Enhanced impact of advisory systems on the strengthening of knowledge flows between science and practice, including suggestions for efficient support and training systems for advisors
- Transition pathways and recommendations for improving the performance and effectiveness of advisory services, including interconnection and networking of advisory services and innovation support services at national / regional and EU level, supporting the implementation of the EIP AGRI
- Suggestions on how to deepen the networking capacity and impact of the CAP's horizontal Farm Advisory System, including a thorough understanding of the impact of and mechanisms under 2014-2020 rural development support for advisory services

The basic recommendations from the experience of AgriLink and therefore the "Dos and Don'ts" of a Living Lab are:



Figure 21 - Dos in AgriLink Living Labs (Source: AgriLink H2020 Project)



Figure 22 - Don'ts in AgriLink Living Labs (Source: AgriLink H2020 Project)

Conclusion:

Regarding the diversity and the different point of views within a single rural area we had many of those experiences, I think the most important element of that was acknowledging that there are differences and being absolutely upfront that those differences exist. You can only work with the people that are willing to work with you, or are willing to work with themselves, as a group to take on board, invitations from an outsider to say can we help you know if there are things that we can look at with you to help you develop those people who resist may come, may connect later, when they see that living level similar it's working. But equally, there was some people who were very resistant because the Living Lab, in some senses, challenged their roles and we come to some advisors that they saw the Living Lab as a challenge to their expertise and their role in relation to the farmer providing advice and one to one type of device, taking that role into a Living Lab, where there's more collected environment and information is being exchanged potentially undermined their role skills or skills but their role and their capacity, brand new to the farmer. So there was some resistance there that's absolutely true. All you can do there is, is hopefully build trusting relationships and setting up clearly what the Living Lab can do, and what the Living Lab can't do. But equally, allowing people to have the freedom to work in their own way in the Living Lab. A Living Lab should not be a constraint, it's an open innovation process. And it should be reasonably open enough to accommodate people's different interests. It provides a space for exploring solution as a co-creation space, so you can't take responsibility, people who

simply don't want to be in that space. It's important to have a clear picture of what Living Lab can provide. And that is something that we as project also struggled a bit internally at the beginning, it took some time to figure it out, in the regional context because not all regions are the same, and they might need different things from a Living Lab, different things from this cooperative kind of space. We have to see how it is implemented in each region we have to do this together with their stakeholders, we have to do it, targeted to their regional needs.

II.3.3 Outcomes linked to LIVERUR results

- The LIVERUR Recommendations, which represents the LIVERUR policy briefs, based on the experience of the Pilot Implementation on a EU level.
- The LIVERUR Out-reach plan, which represents the LIVERUR Policy framework, gathering information and indicators about the policy framework in each of the LIVERUR pilot regions and indicating the conclusions and advice from each of the implementation sites.
- LIVERUR created 3 different MOOCs (Massive Open Online Courses) which are freely available on the RAIN platform in order to help with the capacity building of the relevant target groups of LIVERUR.
- Summarising the key reflections of the respondents during the various co-creation activities, the RAIN platform has achieved its aims to a large extent. Following the consortium's guidelines and principles, the developers created a great structure that provides a meaningful context, is appealing to users, and appears to be able to spread the project's main goal. Participants' comments and ideas were direct and to the point, highlighting the platform's flaws when used in real life, as well as some good discoveries that, if implemented, may take the platform to the next level of perfection.
- The LIVERUR 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 which validated the RAIN business model.

Specific outputs of LIVERUR linked to the created tools, pilot showcases and policy recommendation

D4.3 The RAIN Concept – Generation of the Concept of Regional Circular Living Lab Approach in Rural Areas, <https://liverur.eu/wp-content/uploads/2020/05/D4.3-The-RAIN-Concept-Generation-of-the-Concept-of-Regional-Circular-Living-Lab-Approach-in-Rural-Areas.pdf>

D4.4 Rain Real Life Setting, <https://liverur.eu/wp-content/uploads/2020/05/D4.4-RAIN-REAL-LIFE-SETTING.pdf>

D5.2 TESTING PILOT REGIONS ORIENTATIONS FOR THE TOOLBOX, <https://liverur.eu/wp-content/uploads/2021/04/D-5.2.pdf>

D5.3 PILOT IMPACT ASSESSMENT, <https://liverur.eu/wp-content/uploads/2021/09/D5.3-.pdf>

D7.10 LIVERUR Recommendations (LIVERUR Policy Briefs), <https://liverur.eu/wp-content/uploads/2021/10/D7.10.pdf>

D7.11 LIVERUR Out-reach Plan (Policy Framework of the Pilot Regions), <https://liverur.eu/wp-content/uploads/2021/10/D7.11.pdf>

3 MAIN CONCLUSIONS: RELEVANCE OF LIVERUR RESULTS FOR POLICIES

The first “Knowledge Transfer Session” contributed to identify the results and outcomes of LIVERUR project that could be transferred and included into the future policies on local, regional, national and European levels while during the second round of “Knowledge Transfer Sessions” Studies, analysis, methodology and tools developed within the project were transferred and implemented in other areas counting on the experience and feedback of the pilot partners as well as external projects and initiatives in implementing this methodology.

III. 1. In terms of Rural Circular Economy, Business Models and Social Impact

a) Circular economy

- It is very important to include the social aspect in the circular economy model,
- Circularity will be more important in the future and will offer new perspectives. The circularity should also include social issues and sustainability, not only economic and ecologic dimensions,
- LIVERUR could contribute to adding the third circle (social) to the main conceptual model of circular economy,
- The practice of circularity and how to implement a sustainable model to solve the challenges in each piloting region is a key factor,
- Need to give a more “cultural, social and widespread” meaning to circular economy/circular rural living lab in order not to engage only SMEs,
- Underlining the importance of circularity in all dimensions in new business models (as elaborated in the RAIN concept),
- LIVERUR could have a significant impact to complete the already known Circular Economy referential model by Social Circle

b) Innovative Business models

- The business models are different and they are not same in case of the various new Circular Rural Living Labs,
- Wider partnerships and connections and need to address integrated issue for economic development (environment, social skills, etc.),
- The new CAP orientation needs new business model concepts, RAIN concept can meet these demands,
- Connecting European vision of new rural business model,
- Underlining of the importance of social issues in all dimensions in new business models (as foreseen in the RAIN concept),
- In the circular and shared economies the main processes of the material/technology/social circles are not ending with the waste, in opposite the main goal is the extension of the product lifecycle by the new collaboration among the suppliers. Their collaboration will depend on the market demand and the real /future needs of the customers. The waste would be re-designed, re-processed, re-cycled, re-used, re-distributed, re-marketing.

c) **Social impact**

- The social impact is a very important factor for promoting and developing the circular economy concept in the local societies / territories,
- Social issues in rural development should be an important equal topic to the others,
- Diversity of social impacts that complement their common underlying principles,
- Social issues as opportunities to leverage on to create innovative actions and activities in rural areas.

III. 2. In terms of Forthcoming Challenges in Rural Areas

III. 2.1 Challenge 1: Variability of rural contexts and flexibility/scalability of measures

Each rural area has different characteristics, needs and challenges; therefore, a customised approach is necessary in order to promote circular economy in an efficient way. For this, the RAIN concept proposes a methodology that can be adapted according to the characteristics of each territory.

III. 2.2 Challenge 2: Greenwashing of old concepts instead of developing new roadmaps

Rural development policy is in the phase of slightly new strategic orientation. It is the danger of “greenwashing” or earmarking old measures with the new categories and objectives. The implementation process of RAIN constitutes a roadmap to actively avoid this paradigm and to develop new sources of business modelling, which takes in consideration PPP partnerships and alternative models.

III. 2.3 Challenge 3: Give voice and hear what rural communities have to say

It is relevant to go on with concrete activities connected to circular living lab in rural area since the concept looks key for the new EU policies:

- rural areas represent not just economic and social challenges but also political ones,
- it is necessary to give a voice to all actors in rural areas because transformation is happening there, in particular in the links with urban & peri-urban areas,
- on these areas the EU union principle need to be enforced,
- rural areas challenges need to be tackled from an integrated point of view, calling for all the actors at local and not local level,
- good practices are needed to create different perspectives about,
- pilot actions able to make concrete innovations and success and create network for exchange practices, tools, common understandings and common/policies guidelines are needed,
- bottom-up approach is key to define innovative and sustainable policies and solutions

Recap: Circular Economy (CE) and its basic principles in rural context are based on the idea that all product and material flows which appears in the rural economies during their linear lifecycle, even after they have been used, they will become resources of new products and services.

They maintain the resources in the rural economy even after the product has reached the end of its useful life so that they can be productive again and again. To be re-used and serve the changing

needs and demands of the customers, to measure the social impacts, better stakeholder`s dialogues are required and a better innovation governance model – through open innovation and Rural Living Labs.

Within LIVERUR all parts of circular economy, biological, technological and social circles are represented in the LIVERUR Reference model for Circular Rural Economy (Fig.3.)

- a) How the products/services/energy is produced from raw materials?
- b) How we can use it in a responsible way and c) How can we reach zero waste as a cooperative, farm, eco-guest house, municipality, household, school or local society for a sustainable prosperity?

LIVERUR model for Circular Rural Economy

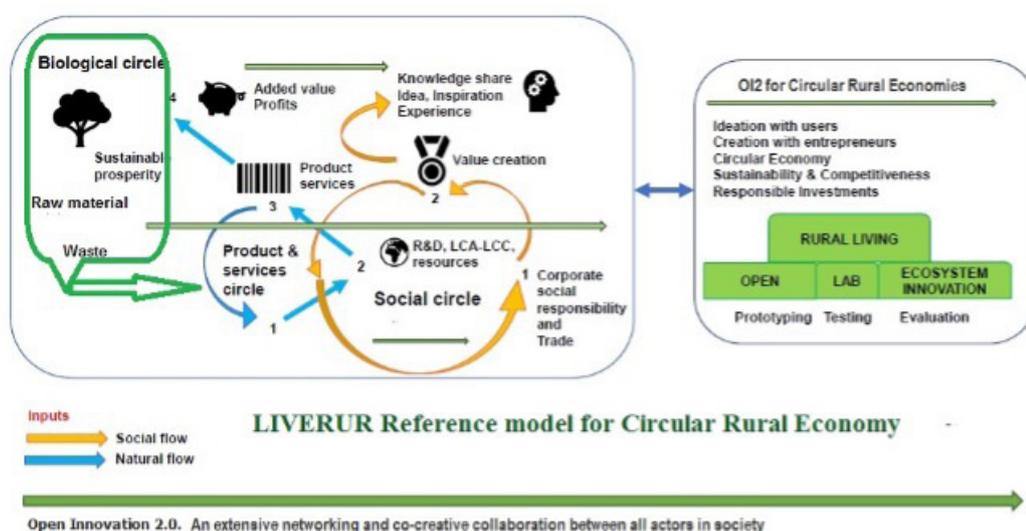


Figure - 23 LIVERUR reference model for Circular Rural Economy (Source: adapted from DoW)

The transition towards a circular rural economy calls for social innovation, social forms of entrepreneurship, social farming models, social cooperatives based on voluntary members etc. as much as (and perhaps even more than) technological innovation. The extensive networking and co-creative collaboration of all actors of the rural society could happen only by the adaptation of Open Innovation 2.0. and LIVERUR Circular Rural Living Labs. (More: D.3.5).



CONCLUSIONS

The various events and webinars within the frame work of the “Knowledge Transfer Session” within the LIVERUR project reached their objectives thanks to the involvement of partners of the consortium, especially the piloting partners and a range of stakeholders who brought an external vision of the main thematic of the project. Indeed, the challenges linked to the creation of rural activities have been well tackled providing a general framework to work with and also some common challenges at European level.

Beyond direct LIVERUR objectives which are to conceptualise and test new Living Lab business model, the event contributed to fulfill an “indirect” but key objective which is to make it sustainable, as business models to build the rural areas of the future, in connection with European, national and regional policies. The main outcomes of LIVERUR invite to work further on the LCSA (Life Cycle Sustainability Assessment) model, how to reduce the environmental, economic and social impacts at rural context (agriculture, food production, water management etc.). The question of the impact assessment especially for the social impact requests some specific tools and follow up of the new LL business models which should be address in the future steps of the project.

The events contributed also to reach the objectives of LIVERUR in 2 ways:

1. By giving the opportunity to the pilots to present their Living Labs to relevant stakeholders and express the key issues of social impact regarding their “real life settings”. The inclusion of selected pilot region representatives turned the event into a workspace, which was highly appreciated. This contributed to giving value to rural areas and activities.

2. By disseminating the methodology and the first outcomes of LIVERUR project to policy makers and get their feedback and at the same time to keep on working in views of transferring the knowledge acquired on a territorial basis following a bottom-up approach. Close interconnection between the pilots and European policies should be pursued during and after LIVERUR project, supporting pilots in the key PPP partnerships and answers to their specific issues/challenges that will guarantee the sustainability of the RLL business model, and its impact at larger scale.



Furthermore, the events have added different perspectives about circular economy outside “most traditional” ones and provided interesting connections about how much rural activities need to be enforced as key actors for the economic development of the territories, linked to local, national and EU level. Due to the LIVERUR stakeholder engagement strategy and the resulting common vision led indirectly as well to a positive development regarding several social issues thanks to LIVERUR.

In addition, these events contributed to define a shared, understandable and clear definition of “Circular Rural Living Lab”, to build a common language shared at European, regional, pilot level, and to avoid confusion in the projects’ communication efforts.

After the first “Knowledge Transfer Session” there was a need to go deeper into the debate about RLLs addressing not just circular economy issues but the general concept. This is why, as the EU stakeholders seemed extremely keen to acquire information from the pilots, and extra session with a sort of “speed dating policy exchange” between DG AGRI representatives and pilots which was one of the targets of the second “Knowledge Transfer Session” in which LIVERUR Pilots as well as external Living Labs and related H2020 projects shared their practice experience in the Living Lab implementation.

However, there is still a need to focus more on giving value to rural activities as economic actors and better know how in practice the rural activities can work as business actors together with the need to better integrate the several dimension in concrete pilot actions.

Finally, clustering the similar EC H2020 projects on Circular economies in peri-urban & rural areas represented a power and common roadmap where the social actors are finding their roles and perspectives in terms of social farming, social cooperatives, social enterprises.

ANNEXES

ANNEX 1. LIST OF PARTICIPANTS

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ANNEX 2. LIVERUR PILOTING REGIONS

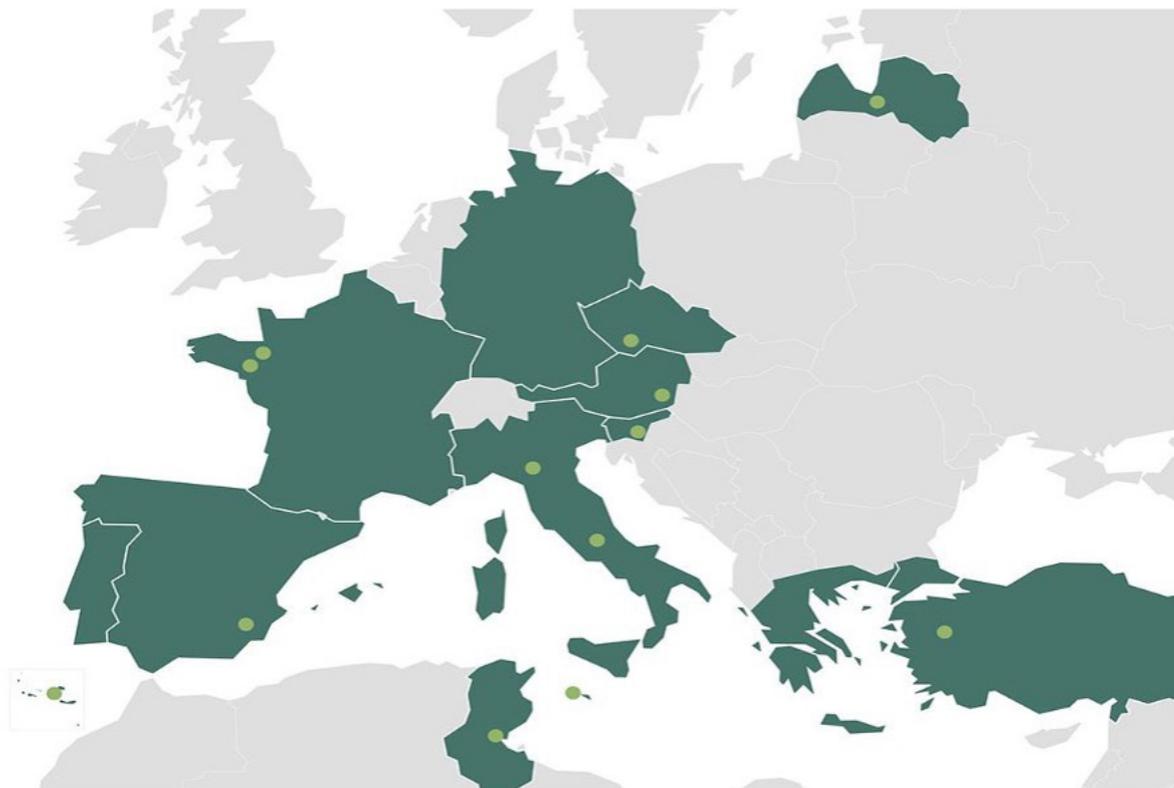


Figure 24 - LIVERUR Piloting Regions

ILHA TERCEIRA - PT

Partners involved in the development of the RLL: Fundo Regional para a Ciência e Tecnologia do Governo Regional dos Açores

The main sector is represented by the milk production chain. Here the effort will be based on creating the conditions to establish a rural entrepreneurial ecosystem in the Azores Archipelago that seeks for quality and sustainability in the production chain. The main challenges here to face are: difficulty in acquiring land and low payment in the primary sector. The archipelago has nine islands. Rural sector, including the associated processing industry is one of the most important dynamos in regional economy, being the main activity daily and meat production.

BRETAGNE - FR

Partner involved in the development of the RLL: Chambre Régionale d'agriculture de Bretagne

There will be three LIVERUR Living Labs in Brittany, which is France's first producing region of poultry (meat and egg), cow's milk, veal calves, pigs and vegetables crops (green-houses and open field). Agriculture is a major economic and employment sector for the region from upstream to downstream along the supply chain with a dense agro-food sector employing 141 000: 67 000 in agriculture and 74 000 in agro-alimentary sector.

Video: https://www.youtube.com/watch?v=NuWBhhM6wiU&ab_channel=CommunicationLIVERUR

REGJUN CENTRALI MALTA - MT

Partner involved in the development of the RLL: TR Associates

The Malta's Living Lab aims to generate new methodologies and technologies to approach rural and peri-urban territories weakness and strengths in Malta by a "model of social farming" and follow the entire short food supply chain for the sustainable eco-production. The main natural ingredients of functional food (spices and medical herbs) will be produced in the land of Church Home for the Elderly in Dar tal-Kleru in Birkirkara, which combine an used water recycling with rain water harvesting and already installed (but need to renovate) irrigation system.

SÜDBURGENLAND - AT

Partner involved in the development of the RLL: REGIONALMANAGEMENT BURGENLAND

The small-shaped structure of the agricultural companies in the pilot region requires the development of alternative sources of income and a strengthening of the image of farming production measures. An aim of the project is the development of new business models in order to reinforce the cooperation between the sectors agriculture, tourism and the regional enterprises to boost sales of regional agricultural products and to find possibilities for new, attractive areas of employment for the businesses in the pilot region.

Video: https://www.youtube.com/watch?v=tR760CRaZ3g&ab_channel=CommunicationLIVERUR

POSUMAVÍ - CZ

Partner involved in the development of the RLL: UHLAVA ops

The Úhlava o.p.s. non-profit organization acts for the regional development in the south-western part of Bohemia. It is a small enterprise area, with active and organized primary producers. The point of

strength and the problems rely intrinsically in the small entity of the actors. The usual arable crops grown are cereals, potato, maize for silage and fodder, clover.

Video:

https://www.youtube.com/watch?v=HalVPLqnHPw&ab_channel=CommunicationLIVERUR

COMPRESORIO DEL TRASIMENO - IT

Partner involved in the development of the RLL: Unione Dei Comuni del Trasimeno

This pilot area will be developed in a lake ecosystem, where the depth of the water is extremely reduced. Therefore, living lab concept will be implemented in order to solve water management issues and to boost tourism in the region. Living Lab in agro-tourism, agriculture and handcraft, for valorizing and selling the typical local products and services. The main problems are: the loss of competitiveness regarding the market, the SMAEs dimension and the low integration at territorial supply/value-chain levels, low attitude to cooperate with the Public bodies to share a common strategic development vision.

Video:

https://www.youtube.com/watch?v=le4flJZSeao&ab_channel=CommunicationLIVERUR

LATVIJA - LV

Partner involved in the development of the RLL: Zemnieku saeima

Fruit and vegetables growing have potential in Latvia, but challenges are mainly lack of cooperation between the growers and the food processors, as well as between the food chain members; cooperatives are slowly starting to develop, lack of knowledge and motivation for cooperation; improvement of knowledge about the production of high quality fruits and production of high value and innovative products.

Video:

https://www.youtube.com/watch?v=tyNd3qLivVo&ab_channel=ZemniekuSaeima

OUEDHREF - TN

Partner involved in the development of the RLL: Association DAR MARGOUM

Oudhref is a town and commune in the Gabès Governorate, Tunisia. The town is a center of production for the Margoum, the Tunisian Berber carpet. Dar Margoum is a non-profit organization, founded in 2012. Objective of the Association: preserve the authenticity of Margoum, encouraging innovation and renewal, and paving the way for graduates of higher institutes of arts and crafts. The living lab in this region will take care of establishing a circular approach to the production of Berber carpet, from production to waste recovery.

Video:

https://www.youtube.com/watch?v=WsUi_lkErnw&ab_channel=CommunicationLIVERUR

PAYS DE LA LOIRE - FR

Partner involved in the development of the RLL: Chambre Régional d'Agriculture des Pays de La Loire

It is a main region of agricultural production with a focus on animal husbandry (dairy products, pigs, poultry). In consequence, a lot of jobs are connected to agriculture and food industry which are the major economic forces in the region.

Good natural conditions and a modern structure of the enterprises are an asset of the region.

Video:

https://www.youtube.com/watch?v=nD8m4jEapw4&ab_channel=CommunicationLIVERUR

PROVINCIA DI REGGIO EMILIA - IT

Partner involved in the development of the RLL: Foundation E-35

In Reggio Emilia, rural activities are promoting innovative experiences related to social dimension, food production and sustainability, natural heritage and soil consumption. Reggio Emilia will develop two Living Labs. One in the peri-urban area to promote an “Edible Park” integrating food production, societal inclusion, landscape and ecosystem services. The other in the Apennines to support community coops for new business models attracting local inhabitants and visitors.

Video:

https://www.youtube.com/watch?v=lb2MWF4Y_ng&ab_channel=CommunicationLIVERUR

MANISA - TR

Partner involved in the development of the RLL: Zafer Development Agency

Trends in global markets suggest there are huge opportunities for the TR33 Region, which has sound basis both organic and branded food production capabilities, however the main obstacle appears to be the scale of the operations and a very slow transition from family-owned and operated business model to more institutionalized management practices, which will be one of the main training opportunities within this project. So, we would like create new business models for the transition and help companies to take place in this economic change.

Video:

https://www.youtube.com/watch?v=taP2XInirF0&ab_channel=CommunicationLIVERUR

VEGA DEL SEGURA - ES

Partner involved in the development of the RLL: Asociación para el desarrollo Rural Integrado de los municipios de la Vega del Segura

The region is a major producer of fruits, vegetables and flowers for the rest of Spain and Europe. Wineries and olive cultivation are developed as well. Even though the temperature makes Murcia very suitable for agriculture, but the low precipitation makes the water supply a sensible and problematic topic. Vega del Segura has a Local Action Group that concentrates the agents related to the economic and social development of the territory.

Video:

https://www.youtube.com/watch?v=hgVCt6WE1rA&ab_channel=CommunicationLIVERUR

SLOVENIJA – SI: Partner involved in the development of the RLL: University of Ljubljana



1. VZHODNA SLOVENIJA

For Slovenia, a small, predominantly hilly and mountainous country located in the middle of Europe, family farming has been a principal model of agriculture for centuries and it is certain to remain so in the future. Slovenia's agriculture is mainly comprised of small farms with 84% of holdings having land under 10ha. Slovenia's total utilized agricultural area equates to 24% of the total area of the country. The area which is dedicated to organic production is 8.69% which is quite high and is within the top ten EU countries.

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