



Building a partnership on agroecology living labs and research infrastructures

Webinars 3&4
Getting inspired from examples

4-5 June 2020, Brussels

Report, 24 July 2020



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More information

You can find more information on the European Commission's website on:

[European partnerships in Horizon Europe](#)
[European research and innovation on ecological approaches and organic farming](#)
[European research infrastructures](#)

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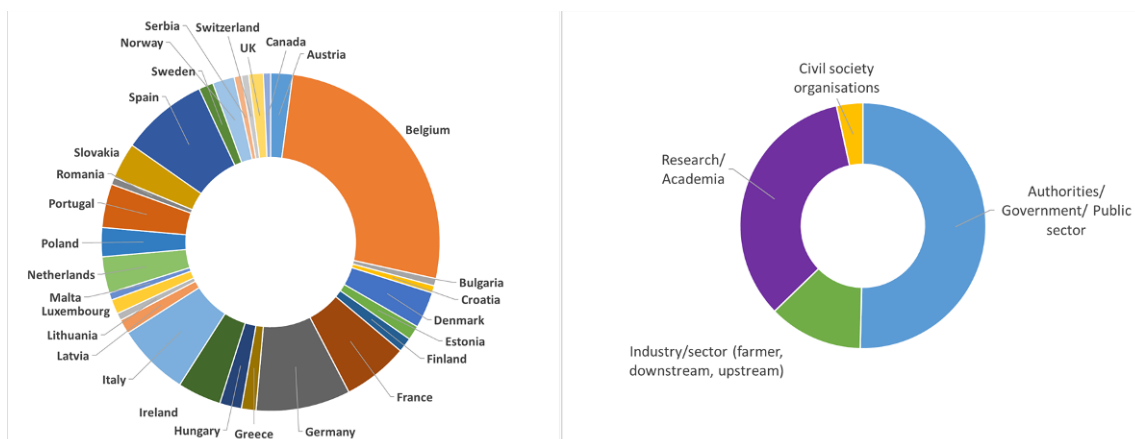
This report assembles the contributions made by participants in the context of webinars held on 4-5 June 2020. These contributions do not represent the views of the European Commission.

Introduction

The European Commission started on 6 May 2020 a series of webinars to discuss with stakeholders and potential partners **how to build the candidate European partnership on agroecology living labs and research infrastructures under Horizon Europe**. After two first webinars on 6-7 May that aimed to build a shared understanding of agroecology, living labs and research infrastructures, a second series was organised on 4 and 5 June to look at practical examples.



Its objectives were to **illustrate** what future agroecology living labs could look like in practice and to **trigger reflection** on the principles or **defining components** that should be retained for future living labs to be supported through the partnership. The examples put forward were existing initiatives in the farming domain which have some of the components of agroecology and/or living labs but not necessarily all of the components. The purpose was not to establish these examples as an ideal to reproduce, but to use them as a **source of insights and questions** on the type of initiatives that would be fit for purpose in the context of the European partnership.



Around 130 people joined. The audience included representatives from 29 countries (23 Member States and 6 non-EU countries including Canada). Public authorities' representatives (research, agriculture and environment, education ministries and agencies) who are key participants as potential main partners, made up half of the audience. The other half was distributed between one third of industry and farming sector representatives (including input industry and downstream food sector and retail as well as farm advisors) and civil society representatives and two thirds of research and academia, including research and innovation collaboration networks.

Main **presenters came from multiple backgrounds** including science, local government and industry and they were accompanied by farmers, food cooperative leaders or farm advisors who were able to explain the benefits they saw for end users in the initiatives presented. They were invited to tell the story of their initiative following a common structure. Participants were invited to ask questions after each presentation and to bring the insights and open questions that the various stories sparked within them and that could be useful for the future partnership.

Inspiring examples



Agroecology and Organic Farming Living Lab (Belgium)

Presenters: Fleur Marchand (ILVO – Research Institute for Agriculture, Fisheries and Food) and Tijs Boelens ([Groentelaar](#)) through video.

The context: the territory, its farming systems and its challenges

Farming in Flanders is characterised by a wide variety of crops and animals, but the most common is highly intensive livestock industry (average of 142 cows/farm; 2120 pigs/farm; 55.000 chickens/farm). Strengths are very good climate conditions and soil fertility; well-organised agrobusiness complex; advanced techniques, innovative power and technological uptake; and entries of young (often new) farmers with commitment towards the environment. Challenges include declining soil quality and agro-biodiversity, water availability, and availability and access to agricultural land. Ageing of farming population, farmers' position in the food-chain, connection with consumers and negative image of agriculture in society are among the socio-economic challenges.

The initiative: how did it start? What are the main activities? Who's involved and how?

It is a very young living lab (December 2019), but it required a long preparation phase (18 months). First activities with farmers and experts started in February 2020.

ILVO's Agroecology and Organic Farming Living Lab was set up following a request from the organic sector in the region for more participatory research. There was also societal demand for more sustainable agricultural practices. The regional government took the initiative up in its strategic plans and requested ILVO to set up the Living Lab (LL). It considers both agroecology and organic farming because they saw the relevance of the concept of agroecology to tackle Flanders' farming inter-connected challenges. Although the request was bottom up, the top down decision was necessary to get the LL started.

ILVO uses system thinking tools and follows the ENOLL approach and methodology to set the LL up and to run it. The first step was to look for **partners**, taking into account the local AKIS system and the farming context. The LL reaches out to all actors in and around the agro-food system: farmers (conventional and organic), farmers' networks, farm suppliers & buyers, food processing industry, organic farming organisation, consumers, researchers, extension researchers, advisors, education, government, NGOs. They all share a common denominator: they all believe in the need for open knowledge exchange and co-creation as a driver for agroecological innovations. ILVO coordinates the LL.



The partners then engaged in a discussion on the **vision and mission** of the LL. Key question they addressed in the process included how agroecology and organic sector co-exist and relate to each other, the kind of activities and the added value of the LL in the landscape of existing initiatives and networks. The history and culture of the different institutes, organisations and network played a major role. Even if all partners share common goals, there were different interpretations of concepts, and opinions on how to involve farmers and address their needs. This took time, but was essential for all partners to agree on a vision and mission document.

Clearly defining the **role of ILVO** as **leader or coordinator** was very important. ILVO sees itself as "facilitator" that coordinates through participation. Trust from other partners is essential. The

equilibrium between participatory approach and decision taking roles is difficult, and it is important to find the right balance among the two as the initiative goes.

They have set up small working groups per **activity**, which are open to everybody. They currently have four of such working groups: (i) Living Labyrinth, linking relevant actors, showcasing the expertise; (ii) Demonstration of agroecological practices, organising a round of visits to inspiring farms; (iii) Agroecology and current policies, organising debates between policy makers and farmers, and (iv) Communicating on the concept of agroecology. They use system thinking tools and try to get tacit knowledge of experts upfront.

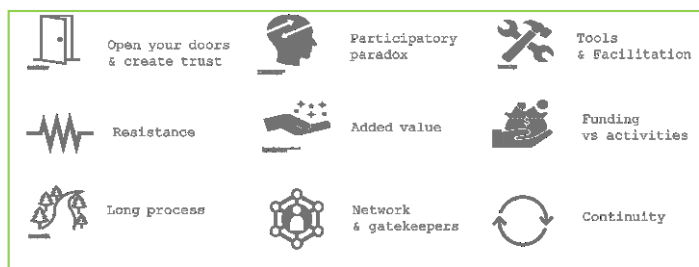
ILVO has contacts and close collaboration with short chain farms, agreements to use 40ha of agroecological farmland, and own research sites. Other partners involved, such as Inagro, has this type of facilities. These are infrastructures that the LL can use future for its activities. On research activities, ILVO tries to facilitate and support systemic research and innovation on agro-ecological practices in food systems. The objectives are to make existing expertise visible, ensure interactive knowledge sharing activities, provide a helpdesk to refer questions to partners, identifying knowledge gaps, education, initiating research with partners, facilitating project proposals and real life research on farms, and building up knowledge on systemic research.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

ILVO does not receive extra **funding** for coordinating the LL. Partners are not payed extra for the time they dedicate to the LL, their costs are covered by their own organisations. ILVO and other partners decided to allocate some funding to start up, with the idea that when the added value of the LL increases they could spend more on it. However, sufficient funding is necessary to get the LL started and carry out the activities, since without activities it is difficult to show the added value of the initiative. The value of the LL is now clear. They are part of the H2020 AgroEcoLLNet-PREP project, which they hope will contribute to boost their LL and similar type of initiatives accross Europe. However, it is essential to get more funding through existing channels for research to get it up and running. The LL should serve as a lever for more agroecological projects.

ILVO’s aim is to grow as a living lab and get more farmers on board, to boost co-creation between all actors, and to increase networking opportunities at EU level. Lessons learned and key messages:

- Keep an open doors policy, this will help build trust
- Resistance is normal in settings involving a variety of histories and cultures. Learn to cope with it and keep on going
- Discussion and agreement on the what, how and why takes time but is crucial
- Added value should be clear for all the actors. Scientists need to broaden their skills and be ready to change their roles
- Find a balance between being participatory and making decisions
- Farmers’ organisation and networks are crucial to get farmers on board.



Farmer testimony – De Groentelaar: *‘We want to make sure that the food we produce is sold at a fair price and that it makes it possible to beginners to start a new farm. This is very important from an agroecological perspective. Living Labs on agroecology are important in bringing these changes about. There are a lot of pioneer farmers who are innovating to counter climate change using low- cost techniques. They are already finding solutions for the problems ahead. These pioneer farmers should be taken out of their isolation so that they can share their experiences with other farmers. Science and society at large should support them. We are losing precious time. Believe in the small changes people are making in their own communities and think about scaling these up. We can do it’.*



More information
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FInAL – Facilitating insects in agricultural landscapes through integration of renewable resources into cultivation systems (Germany)

Presenters: Jens Dauber (Thünen Institute of Biodiversity, Braunschweig) and Burkhard Fromme, AEG Fromme/Altenbach in Scheppau

The context: the territory, its farming systems and its challenges

The project is covering three study regions in Germany: Brandenburg, Lower Saxony and Bavaria. Within each one, two agricultural landscapes of 3 x 3 km each have been set up per region: one landscape lab in which they work with farmers to introduce changes in the farming system, and one reference landscape that they use to do monitoring and compare with the landscape lab. The adoption of the landscape laboratory approach is justified because insects live and move in landscapes.

The typical farming systems in the different regions are characterised by different mixes of land use of average intensity; short crop rotation; bioenergy crops; intensive grassland; pork production (maize, soy). Environmental **challenges** in these regions are many, but the main issues are biodiversity decline, soil degradation, groundwater pollution (nitrogen), pesticide use and loss of species-rich grassland. Insects are threatened in particular in agricultural landscapes. The project values insects as a resource for food production based on the ecosystem services (ES) they provide for pollination, and soil functioning and fertility.

The initiative: how did it start? What are the main activities? Who's involved and how?

Germany faces a big problem with insects decline, and the agricultural sector is on the spot. Public opinion is very critical about this and is forcing policy to make changes in agriculture. At the same time, farmers are reluctant to implement the measures introduced to tackle these challenges, since these have negative impact in their activities. The need to find solutions for insect friendly agriculture working with farmers is therefore what sparked the initiative.

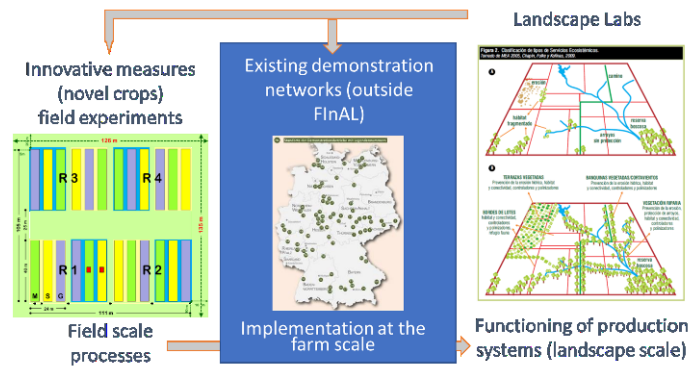
The **objective** of the initiative is to transform the farming systems by introducing renewable resources, such as energy crops, in the food and feed farming systems, using the characteristics of these crops to foster the insects and to prepare better habitats for them. Their focus is on farm systems of average land use intensity, so not conventional or organic specifically.

It started **two years ago**, and the landscape labs are still being established.

Concerning the **actors** involved, these are notably different research institutes representing research in ecology, economy, social sciences, crop protection, etc, chamber of agriculture responsible for farm advisory services, farmers, municipalities and other land users (hunters, beekeepers). Although it is not always easy to get all the farmers involved in the labs, they appreciate that many innovative farmers are willing to do so.

Final is an **Agroecosystem LL**, an approach to accelerate the development and adoption of beneficial management practices by farmers through a transdisciplinary approach. They undertake the monitoring, evaluation and research activities on working landscapes. Evaluation is done on the economic, social and environmental aspects. Co-design and co development of the activities is done with the lab's participants, including farmers, scientists, citizens and other interested partners.

The **activities** are based on the landscape labs. They undertake field experiments where they test the measures before they suggest them to the farmers. In between, they also engage with demonstration networks outside of the projects, such as legume cropping demo projects, and so the knowledge created at the farm scale is transferred to the landscape labs.



Their **vision** is to continue the project for a total of 12 years. Try to come from a business as usual to a more insect friendly farming, by progressively integrating the principles of IPM, integrating renewable resources, more flowering crops, more undisturbed soil, crop diversification and green infrastructure. They aim at achieving a fair comparison of the two farming systems (business as usual vs insect friendly) on all sustainability aspects. For this, they need to find indicators of sustainable farming that will also help them develop a landscape lab approach as a method for farming transition that focus on the needs of the landscape as a relevant scale in these approaches.

The project is young, but it already has impact. Innovative farmers willing to co-design the transition of their farming systems have been identified in three landscape labs, which is not a given in the current heated political situation in the country. The co-design process has started, with great interest from all participants. The State of Bavaria is supporting FiNAL with additional staff. They also appreciate a positive response from farmers not yet involved in the project who were interested to collaborate in replicating the labs in their regions.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

Concerning the **funding** aspects, FiNAL has a budget of 3.5 Mio Euro for three years, provided mostly by the agency for renewable resources through the Ministry of Agriculture, but also from the other partners. One of the main limiting factors they face is to get funding for the volunteer farmers. Farmers participating in the project face risks as a consequence of the transformation process they are involved in and they need to ensure their economic security. Much depends on the willingness of the funding agencies to fund the "unknown", since the output of the co-design process and the costs involved can not be estimated upfront in the proposal. This is a limiting factor.

In terms of the **benefits**, FiNAL is supporting farmers to move to another type of farming, more respectful with the environment and that at the same times guarantees the economic viability of their farms.

Farmer testimony – Buckhard Fromme (Landscape Lab Elm): Winter Wheat is the main crop in his region. Current agronomic practices are no tillage, intercropping, low use of pesticides and (rarely) insecticides. Soil conservation is a priority for him and in particular soil biodiversity. Participating in the Lab is giving him the possibility to move to another way of making agriculture. He designs the solutions together with scientists and policy-makers, and has the possibility to test new techniques such as introducing innovative crops, complex catch crop mixtures, or cultivation methods that protect insects without economic risk.

More information:
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Agriculture catchment programmes (Ireland)

Presenters: Frank O'Mara, Director of Research (Teagasc – Agriculture and Food Development Authority) and Kevin Murphy, farmer taking part in the programme

The context: the territory, its farming systems and its challenges

Most of Ireland's agricultural land is grassland (56% of Irish land is used for agriculture, of which 93% for grassland and 7% arable crops).

According to the 2019 report of the Irish Environmental Protection Agency (EPA) on water quality, covering the period 2013-2018, 53% of surface water bodies and 92% of groundwater bodies in the country were in good status. Although the overall picture is good, the report raised concerns about a **worrying increase in poor status surface water bodies**. The two sources of nutrient losses to water are agriculture and waste water. This fact has triggered high interest in agriculture and how to minimise its impact on water quality.

The initiative: how did it start? What are the main activities? Who's involved and how?

When the Nitrates Directive was introduced in Ireland, part was to establish the Agricultural Catchments Programme (ACP). The **challenge** was the need to find ways to reduce the impact of agriculture on water quality, while allowing farmers to make a living.

The programme was launched in 2008. It is hosted by Teagasc, the Agriculture and Food Development Authority of Ireland. Although it is not a LL officially, it has many of the elements and characteristics of a LL and is an interesting approach of working with farmers and scaling up to all farmers in Ireland.

The overall **objective** of the programme is to find ways to farm that improve water quality and are acceptable for farmers, and to provide the evidence to support this model of farming. The specific objectives are to (i) measure the effectiveness of the Good Agricultural Practice at catchment scale; (ii) evaluate the efficacy of the Nitrates Directive derogation (increased stocking rates), and (iii) provide scientific basis for policy reviews, with a view to adopt modifications where necessary.

A very important feature of the programme is its contribution to the periodic reviews of the Nitrates Directive action programmes, where the programme's findings have enabled sensible modifications to the regulation in collaboration with stakeholders that have made farming easier without having a negative impact on water quality.

Concerning the **actors** involved in the programme, the ACP involves more than 300 farmers across 6 catchments, four advisors and a team of researchers. The programme offers one to one and group advisory service, covering agricultural, financial and environmental aspects. There are also Knowledge Transfer Groups covering specific aspects. The programme also organises public events and farm walks and is active in social and traditional media with a view to increase understanding of the programme's benefits on society at large.

The **activities** combine biophysical, socio-economic research on the economic impacts and scaling up, behavioural aspects of the working area and knowledge transfer. The catchments are selected in different climatic and soil type conditions and different farming systems. The results are applicable for the farmers in the particular catchment, but by extension also to all farmers around the country. It has shown that it is possible to farm and respect water quality even during the derogation of the Nitrates Directive. Research and science dissemination is a big focus of the activities. The programme also collaborates and hosts research projects, e.g. H2020 project WaterProtect. There is an important training component, involving a few PhD and visiting students, as well as specialist advisors that work in the catchment for a few months. The one-to-one and group advisory services provided to farmers cover mostly water quality aspects, but the advise

provided is of a holistic nature, involving the whole farming system and covering agriculture, finance and environment aspects.

The experimental design activities cover advisory activities about farm management, soil sampling, monitor surface and belowground patterns of water flow, continuous monitoring of water quality and quantity and ecological survey. There is a detailed, rigorous science being undertaken at farm, field and catchment scale. Since the inception of the programme, 2 million water samples have been analysed.



The active involvement and ownership by the farmers is essential for the success of the programme. Some research activities have been driven by farmers. For example, in Ireland, one of the measures imposed by the Nitrates Directive concern Phosphorous (P) and the prohibition to use P fertilisers if soil has a high P content since generally, crops are unresponsive to P fertiliser when soil levels are high. Spring barley growers involved in the programme did not agree with this measure, and this triggered P fertiliser response trials on their farms. Results supported farmers' claims that there was indeed crop response to P fertiliser. This is a good example of farmers shaping the research agenda and mobilising the research infrastructure. Signpost Farms are 'Living Labs' under development to tackle greenhouse gas emissions and improve overall sustainability. 75 are selected to work out issues with implementation of GHG mitigation measures, and used as signposts to all farmers on how to move towards climate smart farming. These are real life setting involving co-creation, multiple stakeholders and active user involvement.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

Funding comes from the Department of Agriculture, Food and the Marine of Ireland. The fourth phase started in January 2020, with total funding for four years of 10 million euro.

Among the **findings** of the programme, efficient and targeted measures are needed, as well as good uptake by farmers. Continuous monitoring has given an understanding of when, where and how the pollutant is mobilised and transferred to water. This can be up-scaled to other areas using national data sets and to understand trends. There are no "one size fits all" solutions due to different catchment typologies based on e.g. soil/bedrock permeability and chemistry, as well as different dominating pressures: i) source; ii) mobilisation and iii) transport. The overriding climate pressure, long-term changes and short-term extremes have a big effect on water quality too.

The experience of Kevin Murphy (farmer): many benefits provide by the programme, but notably the availability of advisors on the ground, realise that the catchment area is viable form the economical point of view. What he is doing differently now to protect water quality that he was not doing in the past, is to use a nutrient management plan with the help of the advisors. The programme is also increasing awareness that farmers care about the impact of their activities on the environment and are ready to take any measures to ensure water quality.

More information:

Website: [Agricultural catchment programmes](#) – Contact: Frank O'Mara (TEAGASC) - frank.omara@teagasc.ie

A biocontrol success in La Albufera (Spain)

Presenters: Dr Owen Jones – Previous President of IBMA

Vicente Dalmau Sorlí – Head of Plant Health Service of Generalitat Valenciana

Alessandra Moccia – IBMA Professional Group Chairman

The context: the territory, its farming systems and its challenges



This project has been going on for almost 30 years in La Albufera (province of Valencia, Spain). This is an area characterised by rice production, with 15,300 ha of rice surrounding 3,000 ha of freshwater lagoon, which has a huge environmental importance in the region as it is important for migratory birds, and a National Park since 1986. In 1989 it became a wetland and since 1990 it is a special protection site for birds under Natura 2000. It is a site of EU importance

since 2006. 2,2 million people live in the areas surrounding the rice fields.

The initiative: how did it start? What are the main activities? Who's involved and how?

The problem that triggered the creation of the project was a pest: the rice stem borer, first detected in 1933, which became the most important pest for Valencia rice fields. Traditionally, this pest has been controlled through the use of conventional pesticides, in particular organophosphate pesticides sprayed by aerial application. However, this practice was banned in 2009 at EU level for its detrimental effect on birds, fish, insects and aquatic ecosystems. The solution was pest control by sex pheromone for rice stem borer integrated into farming practice. The switch to biocontrol started in the 1990s, when the pheromone of the pest was isolated, opening the door to the use of synthetic pheromones to control the pest. This is done with the use of dispensers that are placed in the field, creating a blanket of pheromones so that when the females release their own pheromones, males are not able to follow them so they do not mate and they do not produce the next generation of borers. The effectiveness of the technique increases in the long-term.



The project therefore started as an attempt to tackle the challenge of balancing the requirements of rice growers in La Albufera, with the environmental, touristic and wildlife aspects in the area. Rice is an important commodity in the region and in the whole country, as key ingredient of dishes such as paella. The project is a good example of a multi stakeholder approach involving growers, industry, university and government for coordination and financial support.

The **activities** are mainly the preparation of dispensers, which requires the cooperation of growers to prepare and place them in the fields. 15.000 ha in the area are now under this control method, so the number of dispensers that need to be placed in the field is very high. The government of Valencia coordinates these activities. Other important activities are monitoring during the season. There are 51 monitoring points for the monitoring, to measure how many catches there are in the traps. If no male is found it means he cannot find the females. In the 70's catches reached 60-70 Months/Traps/Day (MTD). Now there are less than 2 and often even 0. This shows the

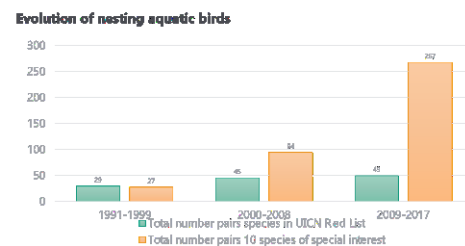
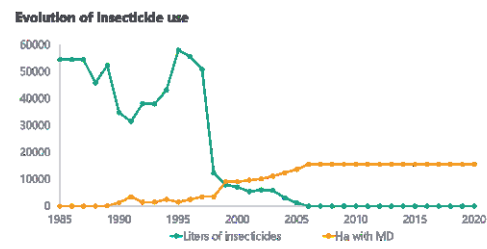
effectiveness of the technique. Field surveys for damage are also undertaken, more than 450 fields surveyed for damages every year. The University of Valencia is involved in the project, working on increasing the cost effectiveness and performance of the technique. Suterra is the company that produces the pheromones. They register the product, which is very expensive to register at EU level. This product is only effective for one pest and one crop. The company has reduced the amount of remaining pheromones in the dispenser. They also now make biodegradable dispensers. By using this technique, the application rate is reduced almost 40 times, from 296,4 g of insecticide per ha in chemical control to only 7,75 g of pheromone per ha.

The initiative complies with the Directive 2009/128/EC on the sustainable use of pesticides.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

Since 2002, the Spanish Plant Health Law allows to declare of ‘Public Interest’ the control of a specific pest, under certain conditions. Based on this, the regional department of agriculture declared the control of this pest as public interest in 2004. The costs involved in the supply, preparation and placing of dispensers is 450.000 €/year. In 2008-2010 the cost was 66 €/ha, 2,2 times higher than now (30€/ha), thanks to the collaboration of the University. The funding comes entirely from the regional department of agriculture, and the aid is compatible with State Aid rules.

The **impact** of the project has been very significant. Since 2006, the pest is fully controlled by mating disruption avoiding of the use of approximately 50,000 L of synthetic insecticides each year. The effectiveness is now close to 100%, damage is insignificant, definitely much lower than with conventional spraying. The technique also allows the presence of beneficial insects that take care of secondary pests in some cases. Economically, the costs are lower than those involved in conventional spraying. The use of mating disruption allows the coexistence of an important economic activity (such as the rice cultivation) in an area which has been declared a natural reserve and that is, additionally, a touristic site in the region. From the social point of view, the technique allows the production of insecticide-free rice, as well as a significant reduction of operators, workers and bystander exposure to hazardous substances and chemical pesticides. Last but not least, pollution and environmental exposure to chemical pesticides is significantly reduced, increasing biodiversity that enables resilient rice cropping systems.



For the **future**, the aim is to reduce even more the number of dispensers/ha (reduce the placing costs: 10 dispensers per ha), which will also reduce the labour costs. One of the remaining challenges for the biocontrol companies is that timelines to make changes and register products are unbearable for the companies, which are usually small and medium enterprises.

Farmer’s experience: Farmers explained that they have big savings in inputs thanks to this technique, which also allows them to contribute to a cleaner environment. Treatments are all done at the same time in the whole area, so the pest is controlled with more efficiency and effectiveness.

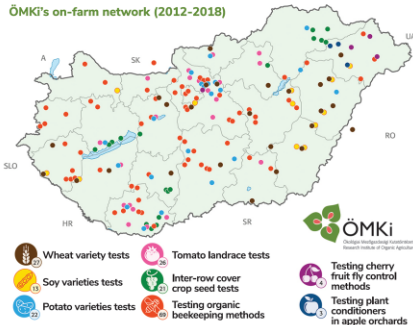
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Presenters: Dóra Drexler (ÖMKi) and Márton Ruppert (Martinus vineyard)

The context: the territory, its farming systems and its challenges

ÖMKi's on-farm network (2012-2018)



The initiative is not restricted to a specific territory but is a broader national network that supports various projects.

Participants are spread across the whole Hungarian territory and are involved in **various sectors** and productions that all have their specific challenges.

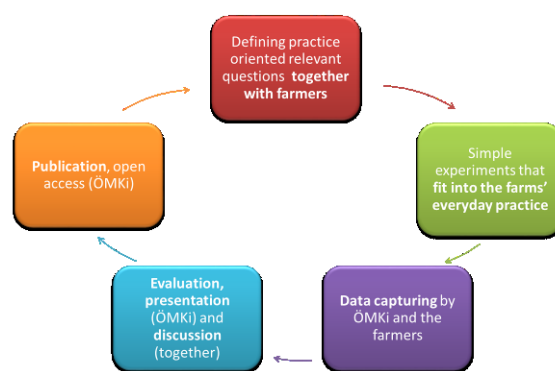
Over **100 farms** take part yearly in the activities of the network. These are **organic farmers** but **also conventional farmers** who want to implement some agroecological practices to improve their sustainability. 4.5% of Hungarian

agricultural land is under organic certification, representing 209 000 ha in 2018 (300 000 ha in 2019), 55% grasslands and 35% arable crops.

The initiative: how did it start? What are the main activities? Who's involved and how?

The initiative was launched by ÖMKi, the Hungarian research institute for organic agriculture, which was founded in 2011. The idea of the on-farm participatory research, which was created in 2012, emerged in the dialogue with another organic research institute in Switzerland: FiBL. The objectives were to **produce practice-oriented research results that could be implemented in everyday farming**, implement research activities that would **connect farmers, processors, advisors and consumers** and **connect with the international community** that included a number of role models applying participatory research methods.

To reach scientific results that are applicable in practice, the activities follow the cycle illustrated in the picture on the right. The questions are first defined with the farmers or other stakeholders. Then simple on-farm experiments are designed to answer these questions. Data is captured, mostly by researchers but also by farmers. Researchers evaluate results and discuss them with participants and publish them in open access. Every farmer gets a personalised feedback on the results of its farm. Results are used to redefine the question, sometimes after just one year, which is unusual.



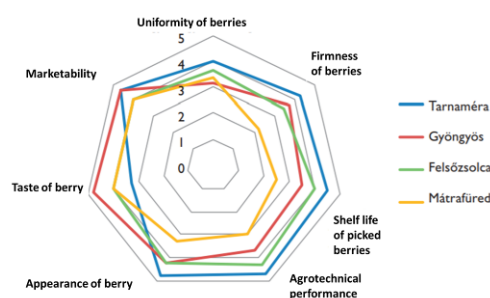
The research leads also to the development of specific products, also following a cycle starting from an idea (often coming from the farmers or field actor) and ending with product launch on the market, with on-farm research playing a key role in the development and testing of the product. Depending on the projects, scientists are involved alongside farmers or other actors. Actors take part on a voluntary basis. There is no formal contract or agreement signed at this stage, nor retribution provided in case the experiment leads to income losses (ÖMKi has a liability insurance for this but did not need to use it until now). The testing of a farming practice that would produce very bad results would have to be stopped immediately without finishing the trial. Every project is led by a coordinator, who has to benefit from or be able to build trust with the various actors involved. These coordinators are people who are known on the field and trusted for their expertise and their capacity to design and organise the experiment.

Dóra Drexler provided two specific examples or activities in two different sectors: tomatoes and vines.

Project example: reintroducing landrace tomatoes



The project consisted in propagating and testing landrace tomatoes who had been collected in various sites in Hungary in the 1960s and conserved in gene banks. 38 tomatoes landraces were propagated and tested on the field by farmers in various sites. They were evaluated for their agronomic traits but also from a quality, taste and nutrition point of view, involving consumer tastings, cooking trials and a lot of exchanges between producers and consumers. Six landraces were eventually selected for further diffusion.



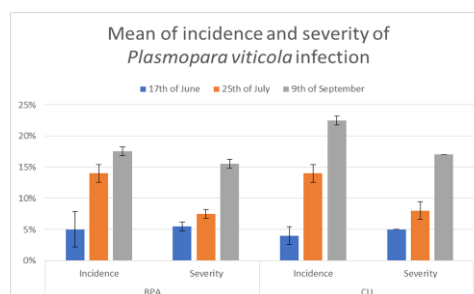
Farmers grew seedlings and proposed them initially for adoption and then for sale for home gardening at a big April campaign, gathering interest from retailers. The project benefited agrobiodiversity, nutrition and sustainable production, involved consumers in citizen science and contributed to developing a new value chain of landrace tomato seedlings.

Project example and farmer's experience: substituting copper with tagatose to fight the downy mildew in vineyards



Marton Ruppert, manager of the Martinus vineyard on the North shore of lake Balaton, shared his experience of being involved in this project, which is also part of the Horizon 2020 RELACS project. He started his 10 ha vineyard in 2008 and moved to organic from 2013 onwards, motivated by the decision to come and live in the middle of the vines with his family and children and the wish to avoid them being "poisoned with chemicals". He experimented with

various methods like cover vegetation or rethinking plant protection at the system level "because everything is connected to everything". He was happy to take part in the test on alternatives to copper in fighting the downy mildew, a fungus that can destroy the leaves or disturb ripening of the fruits. The test started in 2019, using tagatose, a rare sugar, mentioned as BPA in the graph. Only one year after, the results are very promising with lower incidence and severity with tagatose than with copper. He looks forward to continuing.



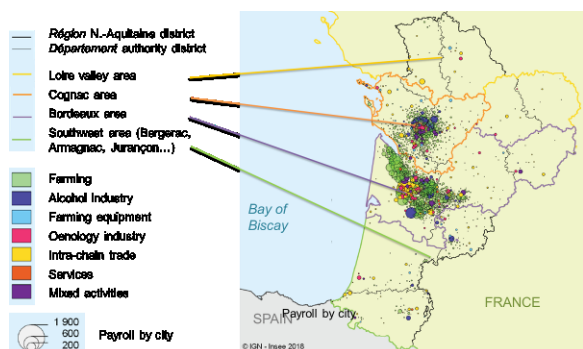
Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

The overall cost of setting up and operating the network (with all of its topics) between 2011-2019 amount to around EUR 3,2 mio. The use of participatory approaches puts the institute in a favourable position to take part in Horizon 2020 multi-actor projects (twelve at the moment). Among the benefits were the delivery of concrete products such as seed mixtures for wine interrows, re-introduction of landrace tomatoes as seedlings or of ancient cereals in arable cropping, improvement of organic bee health management, agrotechnical developments of various arable crops and more sustainable disease control in vineyards. The initiative has also enabled to build a good information network, trust among participants and has strengthened the argument on the big potential of practice change that such a network can sustain, within the organic sector and beyond, using organic as a model of sustainable practice development.

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Presenter: Yann Raineau (VitiREV)

The context: the territory, its farming systems and its challenges



Nouvelle-Aquitaine is a prominent winemaking region. Wine making territories spread between the Loire valley in the North to Bergerac and Gascony in the South through Cognac and Bordeaux in the middle, make winemaking a major regional economic driver. At the same time, the region and sector have found themselves in the centre of growing protests from citizens (as consumers or as local inhabitants in the wine area) and major media attacks on their use of pesticides. Although vines occupy only 3%

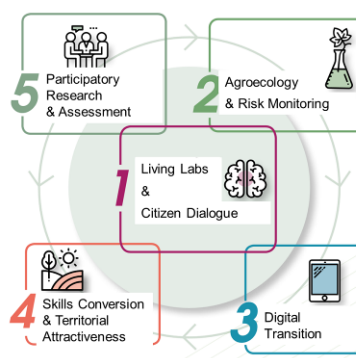
of the agricultural area in France, they are responsible for 15 to 20% of domestic pesticide use. These are mostly fungicides used to fight powdery and downy mildew that are used to secure yields rather than increase them. Most vineyards are under protected denominations of origin which already cap the yields. However, fungus can destroy up to 100% of the harvest if not properly controlled.

The initiative: how did it start? What are the main activities? Who's involved and how?

The growing protests around pesticide use have led the regional authority to take the lead in developing an initiative that would support a transition towards environmentally friendly winemaking and that would reconcile citizens and producers and gather them around a positive territorial project. It has also led the industry to move. The initiative, which was to be named VitiREV later, turned into a research and innovation project when research institutes came with the idea to test practices on the field, experimenting with farmers to test alternatives and break the old pesticide paradigm. The regional council was seduced by the living lab approach because it allowed the project to be a territorial project and not only a sectoral project. It gave it potential to contribute to collective goals such as **raising the economic attractiveness** of vineyard territories while **respecting the environment and biodiversity**, improving **product quality**, responding to **consumer demands** and **increasing the quality of life of both citizens and wine workers**. The project was further strengthened by its selection as one of the laureates of the "Territoires d'innovation" selection in September 2019, providing it with additional financial resources for the coming 8 years.

Governed by a steering committee, the project is very complex, with 9 areas of work, 70 actions and many local actors beyond the ones involved in the steering committee. It involves farmers unions and cooperatives, research and education, innovation and extension programmes and government services as well as agricultural technology and finance actors.

It is structured around five focus areas, as illustrated on the right side: **living labs and citizen dialogues; agroecology and risk monitoring; digital transition; skills transition and territorial attractiveness; participatory research and assessment.**



To involve actors on the ground, the project has decided to go for a decentralised approach building on an "archipelago" of living labs, established in smaller specific territories spread in the region. This was necessary to make the living lab methods operational and allow actors to meet and discuss at a workable territorial scale. These labs are called "territorial innovation labs" (LITs), a new concept that allows to innovate also in the living lab approach. The benefit of this

strategy was also to mitigate risks by spreading the experimentation in various locations and to ensure coverage of various issues. Every lab could choose to focus on the issues of greatest importance to the actors in the village or small location. Altogether, the various labs manage to cover the diversity of issues at stake. To identify these smaller labs, the coordinators of the initiative organised different meetings in different places, explaining what the term living lab meant for them and what they expected: testing in real conditions with a variety of stakeholders involved, especially those who had nothing to do with agriculture but were part of the territory and were interested in shaping the future of agriculture.

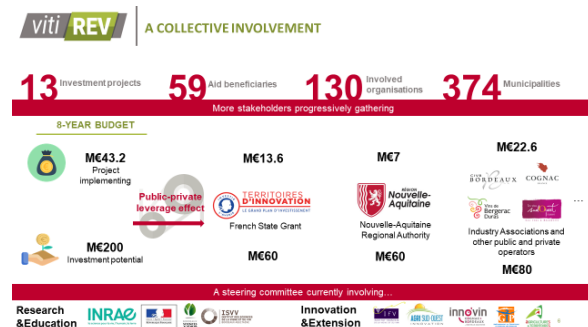
Innovation farmer groups already existed (DEPHY groups) that tested different ways to reduce pesticides on the field. What was new with the living lab was to also touch upon quality of life on the territory and trying to reconnect with other stakeholders, organise mediation, facilitation, events. The pre-existing initiatives and the availability of financial support made it easy for initiatives to bloom. Fourteen living labs were finally included, that are quite diverse in their territorial scale and in the composition of the groups that lead them. A management support team was built to support them and a "LIT parliament" created to ensure exchanges between the LITs and the steering committee. A common charter with overarching principles was established to guide initiatives on a same ground.



One challenge remains that most LITs stem from farmers organisations or cooperatives. Few of them stem from civil society organisations or local authorities. The project is working hard on improving the situation but that will take time.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

The 8-year project’s funding combines grants for operational project implementation (€43 mio) and support for investments (€200 mio). The idea is to use public resources to leverage private investment, including an equity budget to invest in start-ups and innovative businesses. Funding sources include the national grant from the French state through the Banque des territoires, the regional authority and the industry itself.



The project is only starting now that the funding is available and, beyond the building of this initiative and actors commitment to it, results are still to come. One early achievement is the agreement between all actors that they will work together and that they will share data on a common secured platform. A key factor in bringing these actors together has been to push the horizon to 2030 and define collectively what to achieve for the common good. The consortium has defined impact targets that have been agreed collectively. These are mostly technical targets that all actors could feel comfortable with at the start. They will need to be complemented by more social indicators measuring the success in for example reconnecting people and building social capital.

Farmers’ experiences: Two farmers contributed through video messages on what participating in these living labs meant for them. Vincent Leyre, a cooperative president in Buzet, a 2000 ha denomination, expects the lab to help him keep on developing agri-environmental practices on his vineyard, in his cooperative and with other actors in the territory. Catherine, an organic winemaker in Saint-Emilion, is proud that her village agreed to take part in the adventure. What matters is not what she got out of it, but the fact that they can now collectively say “us” and have regained a sense of collective responsibility that makes their historical vineyard a sustainable one.

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Azores rural living lab on meat and dairy quality and sustainable production (Portugal) - A pilot case from the Horizon 2020 LIVERUR project

Presenters: Natália Silva (Azores Government, Regional fund for science and technology) and Mónica Rocha (Cooperative Bio Azorica).

The context: the territory, its farming systems and its challenges

The Azores archipelago is an autonomous region of Portugal in the middle of the Atlantic, consisting of nine islands and small islets. Due to its volcanic nature, it hosts a diversity of ecosystems and a rich biodiversity. Several spots are classified under Natura 2000 or biosphere reserves denominations. Moreover, it is the first archipelago to be certified as "sustainable destination" by the Global council of sustainable tourism, all sectors contributing to that achievement.

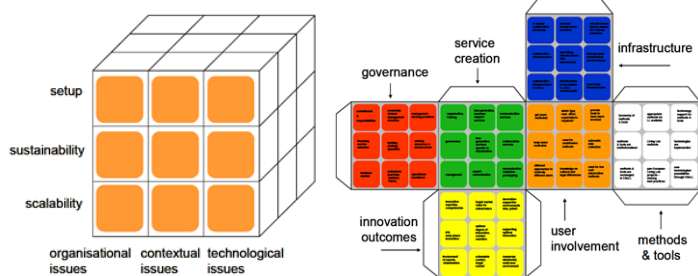


Agriculture with a strong focus on dairy (milk, cheese, butter and powdered milk) and fisheries is a core pillar of Azores' economy, right after services and before tourism. It faces a number of challenges including vulnerability to climate change, fragile ecosystems, low farm income compared to other sectors and low use of digital technologies. The sector mainly depends on family work. Farmers have low education levels and the population is ageing. Organic production and circular economy have the potential to help the sector improve its situation building on the unique natural capital of the archipelago.

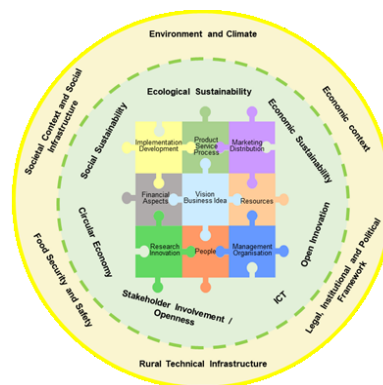
The initiative: how did it start? What are the main activities? Who's involved and how?

The creation of the Azores living lab is the result of the happy marriage between the region's needs and LIVERUR. LIVERUR is a Horizon 2020 multi-actor project that aims to develop and pilot a new business model of regional circular living lab, tailored to the specific needs of rural areas and called "RAIN". The RAIN combines theories on living labs, circular economy and regional contexts and is being implemented in 15 pilot areas. The rural living lab in the Azores has been involved in the project since the early phase of its development. The project forms a great opportunity to accompany the design and implementation of the new regional strategies on agriculture, science and technology in general and on dairy innovation in particular. The project benefits from an existing facility: TERINOV Science and Technology Park on the Terceira island. TERINOV is an infrastructure, located in a historical building and co-financed by the ERDF and promoted by the Azores regional government. It shelters researchers, start-ups and SMEs involved for most of them in developing projects in agribusiness, creative industries, ICT. Gathering these actors within a same ecosystem has shown a huge potential for innovation in several areas since it was created. The infrastructure provides basic services and infrastructures such as biotech labs, dairy labs and experimental field parcels. TERINOV also promotes a culture of innovation and creativity and the interaction with society that resonates particularly well with the historical nature of the building as a former hospital and university building.

The purpose of the living lab is to address the main weaknesses detected while analysing the sector against the criteria of the RAIN model: empowering farmers through education and training and improving the adoption of digital technologies in dairy production. Several steps have been completed to build the living lab. The first step was to analyse the current state of the sector (from farm to fork) and its innovative potential. This step showed that while a lot of the 2000 businesses part of the value chain have ideas for innovation, only eight have the in-house facilities to develop them into new products and services. The second step was to use LIVERUR methodological resources such as EnoLL principles, the harmonisation cube and the RAIN model to develop a holistic overview of the strengths and challenges to take into account. The following steps in the coming six months include a set of co-creation events that will serve to co-select the most suitable activities. After these events, the lab will officially be launched in September and the pilot on biological production will start.



The harmonisation cube (Mulder et al., 2008)



The LIVERUR "RAIN" model combining living lab, circular economy and rural development

Project example: the pilot on organic dairy production

The aim of the pilot is to design collaboratively a strategy for organic dairy, which will include all aspects of production, processing, retail, marketing and transport, including a new business model for organic dairy production. Monica Rocha, the president of the Bioazorica dairy cooperative, explained the benefits of the living lab that she describes as a "win-win" for the sector. She referred to the degrading image of dairy products and new expectations from consumers that need to be better understood and require the development of new products. The key success factors that the living lab approach can bring are to combine traditional knowledge and scientific knowledge to create added-value products, compensating for the difference in price of higher quality products, build new information to improve sustainability in dairy farms and unite actors so they speak with one voice. To succeed, people must be willing to change, producers and consumers and a balance must be found between all expectations.

Producers and the cooperative expect to get involved in innovation by accessing all innovation means and facilities offered by the living lab. They also expect to be involved in raising awareness in the potential of organic farming for health, the nature and the economy. And finally they expect to be part of a larger strategy to develop a vibrant economy around better products and to be part of the process for developing the Azores organic brand. The benefits that they anticipate are a greater recognition of their work and their products, more job creation and better long-term prospects that will lead young people to settle in organic dairy production. It is hard to create change, Monica Rocha said. "They need courage to embrace this project. We need to have a message and a sense of mission. Other people need to understand that we defend another concept of the economy: how we affect things around us." She referred to responsible consumption and social cohesion as important goals that the living lab can help achieve "if everybody's involved, we go from a singular voice to a collective voice and we have a greater project".

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

During the pilot, Terinov provides the facilities and the LIVERUR project supports the costs for the events needed to launch the living lab (15K€). The living lab will officially start in September with the objective to test new products or services of at least one company. After the pilot, Terinov will govern the living lab and will try to sustain its activities through private support, collaborative projects, crowdfunding and keeping the link they have to regional strategies.

More information

Website: [LIVERUR](#) project – [Azores living lab](#)

Contact: Natália Silva (Azores government) – natalia.sa.silva@azores.gov.pt



Rebuilding a local food community starting from sustainable farming and collective actions (Italy) - A living lab of the Horizon 2020 AGRILINK project

Presenters: Davide Zimolo (AIAB – FVG), Stefano Bortolussi, farm advisers

The context: the territory, its farming systems and its challenges

Friuli-Venezia Giulia is a small autonomous region in the North-East of Italy, with very varied morphology (mountains, coastline, moronic and karstic hills and plains) and varied farming systems. While some farming systems such as viticulture are very advanced, some such as arable crops suffer from structural limitations and a lack of organised processing facilities. The main problems that they face in this area are farm abandonment, ageing, lack of economical sustainability and lack of new farmers who are willing to innovate. This leads to farm consolidation, monoculture and loss of landscape and environmental assets.

San Marco is a typical rural town in Friuli facing abandonment, migration towards urban areas. A point of interest is that some of its agricultural land is common. Commons are by law owned by citizens. There is a regional law that defines and regulates these commons and says they have to be managed through community and social participation. It also says there needs to be mutual dependence between land and community. This was not the case in San Marco until recently. The commons were rented to conventional farmers who grew soy and corn in ways that negatively affected the environmental and the citizens, the actual landowners in this case.

The initiative: how did it start? What are the main activities? Who's involved and how?

Before AGRILINK

In 2014, 30 citizens started a "commons committee" to regain control and start an initiative that would have a positive environmental and social impact. They wanted crops grown organically and respecting agroecology principles. They wanted the initiative to boost the local economy. And by doing that, they wanted to show that a different way of farming was possible and trigger a change in nearby farming systems. They created a sustainable wheat value chain from field to table. It was done through a participative multi-actor initiative that started from the bottom up. It included all different actors throughout the chain and, being rooted in common land, had a strong territorial identity.

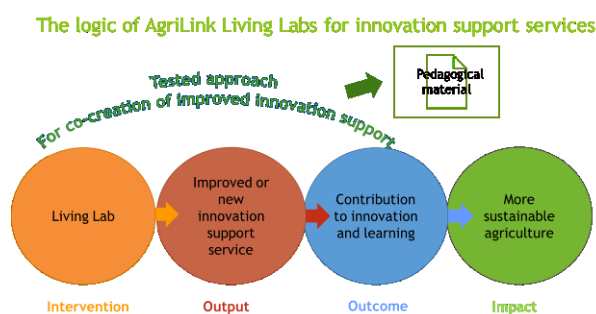
The actors that are part of this project are multiple. Various types of farmers are involved: professional, hobby, retired farmers. Project promoters wanted to grow wheat that would adapt and have deep roots in the land. A cross-composite wheat population was chosen and brought in by researchers. Two local mills started since the beginning that process all wheat locally. A network of others businesses is involved (bakers, shops...). Citizens themselves are very involved in the decision-making processes. They also buy and eat flour and the bread, closing the loop. There is also an educational dimension. Schools are involved and co-create awareness to bring about a new generation of people who are interested in local organic food production. Advisors are also key actors. There is in general limited advice for arable crops in the region. The initiative was able to count on the help of some farm advisors thanks to EU rural development programmes funds or regional funds. However, the availability of advice for other production stages such as bakery or the mills was limited. And nothing linked the various production steps together.



The main issues that the initiative faced upstream from the involvement in AGRILINK were the need to strengthen all the links through more communication and more knowledge sharing that would enhance economic sustainability, limited experience in commons management and the lack of comprehensive support for such initiative like this one that want to start a new value chain. New ways to support innovation needed to be created.

Within AGRILINK

The initiative then got involved in the AGRILINK project. AGRILINK is a Horizon 2020 project developing novel approaches to advisory and innovation support services. It runs six living labs and supports their interventions, creation of new innovation support services, contribution to innovation and learning to *in fine* trigger more sustainable agriculture. On top of the learning happening within each lab and between them, researchers learn from observing processes, deriving lessons learnt and designing tools to share new knowledge on how to run such processes.



The aim of the living lab created around the San Marco wheat initiative was to catalyse the creation of advisory services and tools able to provide support to a demographically and professionally diverse group of farmers and other actors in the consolidation the project that was already there. Upon starting, the team had to gain trust, define their role and get a mandate to operate with this project that had long existed. After this was achieved, it was easier to understand the needs and the problems, in particular the main gap: there was nothing that linked the various aspects of the value chain. The project started to think on how to do that. The co-ideation process was quite challenging because of people's socio-demographic profile (older farmers with little interest in innovation) but the group eventually came up with some ideas. They started developing and co-creating a manual for reference and support that would encompass all the various stages of the production, processing and retail and that can serve as a support for farmers and all other actors.

Sharing experience, Stefano Bortolussi explained that it had been both easier and more difficult to work with non-professional farmers than with professional ones. It had been easier because people were free of *"training based on decades of production of commodities to be sold far away"*. They were more receptive to technical proposals like using wheat population or accepting lower productivity and could easily understand why practices or approaches were recommended. However, they lacked the technical know how to implement the recommendations in practice. This required a lot of energy and contacts in the beginning. But *"at the end, when results start to come, the work becomes much simpler because, as a part of a network of shared knowledge, at a certain point, you are no more a key figure but the project can run on shared knowledge without so much effort"*, he said. Answering a question on potential conflicts between professional and non-professional farmers, he said that, although they were very different to work with, there was no stark contrast. They could work together, each bringing different points of view that are of great help to reaching the objective of such a holistic initiative.

Costs and benefits: how much does it cost and how is it funded? What has been the impact or which impact are they aiming at? What are the long term prospects?

The presenters did not elaborate on the cost of the initiative. The impact on the local area clearly appears from the story, with the creation of a local value chain that has allowed to convert commons surface to environmentally friendly practices while feeding the population directly through a local value chain. In the future, the project will keep working on support resources. They hope this will contribute to creating a novel resource for "commons land management" projects, showing a pioneering example that can be replicated. Farmers are interested in mentoring other initiatives and there are common lands on significant surfaces in various parts of Europe. And the lessons learnt from the project can also serve initiatives that are not on commons.

More information

Website: [AGRILINK](#) project – [Friulia Venezia Giulia living lab](#)

Contact: Davide Zimolo (AIAB-FVG) – Email: davide@aiab.fvg.it

Cross-examples discussion: insights, open questions and take-aways

The presentations triggered a lively debate with the participants. The report on the questions asked on the various individual presentations is included in annex. We report here on the transversal aspects.

Transversal view of questions on the individual presentations

The debate was also very lively in the **chat**. Several questions related to the **actors involved in the living labs (LL) and the relationships between them**. Questions were raised concerning the **preparation phase** of a LL and what types of support measures currently exist to define the implementation aspects, such as vision, concept, and governance structure. Regarding the initiators of the initiatives, the examples showed that the landscape is varied (farmers' organisations, local authorities, research centres, etc.).

Many comments concerned **how to get all stakeholders involved** in the LL, and how stakeholders' motivation to join, as well as diverging interests, are identified. The role of policy or regulatory drivers as incentives was mentioned in this respect. In the cases showcased, many of the actors are concerned by the same issue (e.g., pesticide issue), facilitating engagement. Setting a long-term time horizon with concrete inputs is equally important to give actors a sense of continuity. The push towards systemic-thinking was highlighted as the real added-value in some of the initiatives.

Questions were also raised about the **type of actors involved**, in particular whether citizens, consumers, local authorities, municipalities and other food chain actors (processors/retailers/food brands...), beyond farmers and researchers, were involved in the initiatives. In connection with this, questions were raised about the **relationship between researchers and farmers**, on how this is organised and maintained in the long-run and on how motivated and flexible researchers are to take up the research questions that farmers have. Regular coordination meetings where all actors are brought together seem to be key to keep the commitment, motivation and collective feeling of the different actors and to demonstrate the gains from cooperation, as well as to avoid possible competition and risk of duplication efforts both within the LL and with other LL or initiatives in the same area or region. Questions concerned also the involvement of mediators in some of the initiatives, what their role is in the process and what kind of professional knowledge do they bring in, as well as the important role of advisors in particular in providing advice on value chain cooperation.

Several questions were raised about **farmers and how their problems** were addressed in the different initiatives. The participants were eager to learn notably about **farmers' motivations** to engage in the initiatives (e.g., caring for insects improves farmers' social image, better revenue from better practices, free soil samples, nutrient management advice, etc.), and how actively farmers bring their specific problems to be addressed through the activities. In this regard, the initiatives can be useful tools to design and agree on local and adapted rules for farmers. The point was made that farmers are increasingly eager to test new innovations, novel crops, novel measures, and find alternative markets, and that these pioneer farmers should be taken out of their isolation. On the other side, it was also noted that farmers take a risk by engaging in these initiatives and eventually changing their practices. This may mean that the best farmers are not always the most motivated to engage, so the question arises how to support and involve them. This came across as a key aspect, since in most cases, the success of the initiative is measured at the landscape level, so the involvement of a significant number of farmers at territorial level would be required in order to achieve a significant transformation in the farming practices addressed. Some participants inquired about the length of the learning process that links research findings and uptake by practitioners, how the commercial benefits are delivered back to the farmers or how intellectual property rights are rewarded.

Participants were also interested in understanding **how knowledge is co-created** in the experiences shown. Some participants were of the opinion that the cases were examples of practical research, rather than true living labs. They highlighted that **one of the conditions of a LL is that activities are co-designed and performed by all partners**, and in this regard, they asked for clarification about the difference between a LL and other initiatives or schemes such as the multi-actor approach or EIP Operational Groups, where co-design is obligatory.

How to **ensure the continuity of the activities in the longer run** came across as a **key aspect when discussing about sustainability of LL, which is linked to the risks** entailed in running a LL. **Financial aspects are key** in this respect, but not the only one. Ensuring **risk sharing, motivation and benefits** for all actors involved are factors intrinsically linked to LL sustainability. The **replication potential** of a LL is another important aspect to look into.

Participants observed that the examples showed the **great diversity of objectives, activities and types of disciplines** that can be covered in a LL. Many initiatives deal with aspects that include pest, nutrient and water management, and soil health, as these are often among farmers' top preoccupations. Free advisory services are also an important element to attract farmers. Biocontrol measures were identified as crucial for agroecological farming, especially in horticultural crops. Bioeconomy and circular economy concepts were also suggested as interesting topics for LL. The degree to which learning can be transferred among crops was also highlighted. **Digital tools** came across as key in the context of agroecology, as instruments that allow monitoring the activities and their impacts at landscape level. In this context, **enhancing farmers' uptake of digital tools** to help them monitor the evolution of the farming practices, as well as to improve local knowledge, build platforms for data and learning sharing, is an important aspect to ensure for the success of a LL. Regarding the scale, the role of **landscape scale transformation** was highlighted, and hence the importance to adopt territorial approaches that involve all actors in a territory, and not only farmers. This is key for social success. Concerning the **disciplines** covered in LLs, technical agricultural sciences, and social sciences (geography, sociology) were mentioned.

Regarding aspects related to **governance**, many questions concern the legal status (e.g., whether there is a legal agreement between farms and research institutions, existence or not of a commitment at the regional level to provide support to the LL, etc), or how is decision-making organised in a LL. While governance of such multi-actor initiatives could be heavy due to both the number and variety of actors involved and the issues at stake, ensuring some degree of flexibility to facilitate access to outsiders and farmers should be an important element to ensure.

Many questions concerned how to ensure sufficient **funding** for setting up such initiatives and ensuring their continuity in the long run, and what the role of public authorities (governments) is or should be in supporting these initiatives. The financial risks brought by the transformations was underlined, and in this context, questions were raised about the possibility to use CAP support to farmers and how to attract investors for more costly technologies (eg., biocontrol).

Market and social aspects and **connection with consumers** were underlined notably in relation with **measuring the success of LL**. In this regard, issues such as how to measure economic and environmental success, the broader social effects of transitions toward, e.g. insect-friendly and pesticide-free agriculture, such as information to consumers, certificates, and increased consumption as a way of rewarding this way of farming, or whether the initiatives have brought changes in agricultural practices in the area, were mentioned.

Discussion on insights coming from the various examples

The webinars concluded with a collective discussion in which the participants shared their **insights from all the examples** and the **take-aways that should be taken into consideration in building the partnership**.

For the participants, it became clear that it is equally important (and challenging) to establish a LL and to keep it alive, and that both things are expensive from an economic (funding seems to be crucial in many of the initiatives) and social point of view. Participants noted that many different sizes, shapes and levels of LLs exist, and subjects can be very broad. While Europe hosts farming systems that are very different from an agroecology point of view, challenges to face are similar: water/droughts; soil nutrients cycles; plant/animal relations; national/European policies; conservation and management; education and training of professionals.

Concerning the principles, **co-creating solutions between researchers, advisors and farmers** was considered as essential for an initiative to ensure co-ownership of results. Key success factors are the **partnership among the different stakeholder partners and the integration in the local context**. How to **build and maintain trust and ownership** in the LL seems to be one of the most difficult challenges to address. The role of social capital and history of networks is very

important in the success of LLs. This implies that **context must be considered in depth** before deciding if and how to launch a LL.

Participants underlined the fact that the **market vision and information on how success or failure of transformation and innovation in farming is monitored and measured was largely missing** in most of the examples shown and that these are necessary elements to consider in a LL. The **use of ICT tools** for tracing the transfer of goods across the value chain, including digital traceability tools, were highlighted as key for the functioning of LLs. The **landscape/catchment scale** was confirmed as the target scale to achieve results.

Several participants observed that **many of the initiatives shown** seemed to be more examples of practical research with stakeholders' involvement and **not real LL**. Some failed to see the farmers as drivers of all the initiatives presented. Participants pointed out the need to spell out more clearly the differences between participatory, multi-actor projects, EIP-AGRI Operational Groups and LL. In this regard, it was clarified that aspects related to multi method, involvement of different disciplines, on farm research, socio-economic aspects and system approach are distinctive elements of LL that are not always present altogether in multi-actor projects or in EIP Operational Groups. At the same time, emphasis was put on **not focusing too much on drawing a line between what a LL is and what it is not**, but concentrating on encouraging the adoption of the LL values and elements by similar initiatives that do not have them yet. Looking at **social aspects is crucial** and very much in line with agroecological principles, which go well beyond a set of input-substitution tools. **Interaction with local authorities is key** in this view. Participants emphasised that **new initiatives should not replace existing networks or initiatives** that are working already in an effective and efficient way on local level. Important in this regard is that various organisations/structures work together ensuring respect of the broader long-term AKIS objectives, with a bottom-up approach and making use of AKIS networks/long term programmes to ensure a long-term vision. Funding seems to be often crucial in many initiatives.

The cases and the discussion highlighted the important **role of advisors** who can multiply innovative outcomes and convince farmers to bring in their practical knowledge while at the same time make them becoming more innovative.

Participants emphasised the **need to promote the exchange of knowledge, experience and best practices** among the different initiatives, as well as the identification of common challenges, bottlenecks, success factors and tools to educate and to advise these transition processes. In this regard, participants suggested the creation of a toolbox to set up LL. This should also include the "not-to-dos" and lessons to be learnt from possible mistakes and failures.

Concerning the future partnership, participants considered crucially important to **ensure direct and active participation of end users** in the partnership development. Key questions for the partnership are to ensure that different **partners benefit from the changes** and how to **ensure long-term development** (funding) of the initiatives. Aspects such as drawing common guidelines in view of the diversity of EU landscapes, possible topics to be addressed and different interpretations and applications of the LL approach and agroecology, adapting lessons learnt to different contexts (including policy contexts), and scaling up to an EU level network or partnership were identified among the biggest challenges the partnership will need to address.

Value chain developments, the involvement of value chain actors and capturing social and socio-cultural aspects and benefits of agroecological farming are considered as key to ensure the long-term sustainability of LLs and the participating farms. Aspects related to the **ageing of EU farmers**, education and preparation of future generation of farmers should be part of the discussions in setting up the future network.

Participants underlined the need to **ensure that the partnership is linked to policy initiatives and objectives** such as the ones embedded in the farm to fork strategy and its targets, notably in relation to reduction of pesticides and fertilisers, protection of biodiversity and increase of organic farming.

Some participants highlighted the **risk of duplicating the efforts** that were done to set up **EIP-AGRI and the network of operational groups**, and raised questions on whether this network be replaced by the network of Living Labs, or rather the operational groups that are working on

agroecology be integrated in the LL-network. One of the possibilities identified in this regard was to include the link to OGs as one of the requirements in the activities that will be carried out under the future partnership, as it is currently done in Horizon2020 multi-actor projects.

Questions were also raised about the role of the two Coordination and Support Actions (CSAs) that have been selected for funding in supporting the development of the partnership. It was clarified that the CSAs will among others help prepare the community, build capacity, and pilot the initiative, and that the webinar that is being organised on 25 June will be devoted to discuss these aspects in more detail.

Last, but not least, some participants pointed out that participative funding is not working very well in some countries (Central and Eastern Europe), and asked to ensure proper participation of partners from these countries in the partnership.

Closure and next steps

The European commission concluded by presenting the next steps in discussing this candidate Horizon EU partnership. These include:

- Launching a mapping survey to collect examples of agroecology living lab initiatives in the EU, based on a questionnaire that participants are invited to comment by 12 June;
- Organising an interactive session to start co-creating the different elements of the partnership in practice on 25 June;
- Starting preparation of the partnership thanks to two projects that have been selected for funding under the Horizon 2020 call FNR-01-2020 and are undergoing their grant agreement preparation phase.

Annex 1 – Questions and discussion on individual presentations

Questions to Fleur Marchand (ILVO, Belgium) related to the role of ILVO in the Flanders AKIS environment and why they are coordinating this LL. Participants were also eager to learn more about the involvement of citizens, local authorities and the educational system in the LL, and to understand better the relationship between researchers and farmers in the LL. Fleur Marchand explained that the main value added of ILVO as coordinator of the LL vis-à-vis other research institutes in Flanders is that they cover the entire territory of Flanders, and thus a wide range of sectors, and are more linked to policies as compared to other institutes, which focus on specific regions and are more sector-oriented. ILVO practices a systems approach in its advisory and research functions. They also have experience in multi-actor research thanks to participation in European projects. As a LL, they are open to all actors, including citizens, local authorities and the educational sector as much as possible, but they are only at the beginning. The LL is already helping in bringing different actors together, facilitating connection with the relevant people and looking for the right funding so they can jointly engage in projects. They try to be a lever for more agroecological research in the future.

Questions to Jens Dauber and Buckhard Fromme (FInAL, Germany) related to how the measurement on environmental and economic impacts is done, on the comparison of impacts among the agricultural systems, as well as on the effect of this type of insect-friendly farming on social aspects and on consumption. Participants were also eager to understand better the constraints entailed in funding the farmers that volunteer to take part in the initiative, as well as the aspects that make this initiative a LL and not just practical research. Concerning measuring the success of the transformation process, Jens Dauber explained that proper indicators are needed in order to be able to measure a full transformation of the entire system and make a fair comparison. If we look only at the economic aspects, it is clear that introducing any innovation will be necessarily more expensive at the beginning than the business as usual situation. A methodology is needed that allows measuring also aspects such as resilience, stability of the system and of yields, incomes, farmers' situation in the face of extreme events such as droughts, etc. Concerning measuring environmental success, FInAL monitors different organisms and the ecosystem services they provide over time to see if there is any change in population structure, community composition, etc. However, also in this case, proper indicators are needed that still need to be developed or found in other systems. One of the objectives in FInAL is to evaluate how the approaches they develop work in different agricultural structural areas (small vs big farms, etc). Concerning the elements that make the initiative LL, FInAL is a LL in its wider sense, as they follow a co-design process involving different actors in the landscape, bringing them together in a participatory approach and developing the measures with all the actors involved. On the question about funding, it is difficult to convince agencies of the need to fund farmers for their involvement as there is the perception that farmers already get a benefit by getting involved in the initiative. This perception ignores the time farmers put in the lab. Moreover, funding is provided through contracts, which are quite rigid and farmers are reluctant to sign them, shying away from collaborating because of these bureaucratic aspects. Concerning the impacts on social and consumption aspects, one of the activities in FInAL is to simulate market situations to secure farmers' incomes, which is necessary because for many of the crops, like biomass or industrial crops, which are introduced along with crops for food and feed, market do not exist yet. FInAL does not involve yet citizens or consumers, they may do it later on when they have a better vision of the value chain development potential of the activities.

Questions to Frank O'Mara and Kevin Murphy (Agricultural Catchment Programme, Ireland) referred to the involvement of farmers in the programme, notably whether it is compulsory or voluntary and in this case how easy it is for the programme to get them on board. Participants were also eager to learn more about the most important practices promoted in the initiative in relation to soil quality, and in particular on concrete examples of practices implemented by the farmers with a focus on a practice considered agroecological. Questions also concerned how the programme manages to ensure a good water quality in terms of Nitrate levels in the context of the Nitrates Directive derogation, and if the programme uses drainage systems to control flow of nutrients to the water. In his responses, Frank O'Mara explained that involving farmers is not difficult since these see a positive impact on their farms, also economically. And although they do not get money from the project, they get advice for free. Their involvement in the programme is

voluntary, and by and large they have it thanks to the good relationship with the advisors. Regarding the most important practices promoted in the programme, farmers are strongly encouraged to undertake soil sampling and adopting a nutrient management plan. Concerning the Nitrates Directive derogation and nitrogen levels in water, Frank O'Mara explained that nutrient levels in water vary and that the same set of rules may not have the same impact in different regions. Limiting the source of nutrients on one catchment may not have any impact, as there are many more mitigation actions that need to be taken into consideration. On the derogation, it allows almost 3 cows per hectare compared to the 2 cows per hectare that is the limit in Ireland. Although farmers are allowed to have more cows, the requirement in terms of measuring nutrients and fertilisation imposed on farmers are also higher. Finally, he clarified that the programme does not use drainage systems yet, but they are looking into what types of systems to put in place to avoid the nutrients from getting to the water.

Questions to Owen Jones, Vicente Dalmau and Alessandra Moccia on the La Albufera example (Spain) raised the central importance of plant health issues for agroecology, in particular for horticultural crops for which there are not enough solutions yet. Moreover, biocontrol solutions are still very costly, and this poses the challenge of how to attract investors to biocontrol and botanicals if they do not see the market opportunity. Participants were also eager to better understand the origin of the pest, whether it was caused by climate change, by unsustainable agricultural practices or by human activity. They also wanted to understand the impact of the project in changing agricultural practices in the area. The speakers explained that large agrochemical companies do not invest more in biocontrol because they made already a big investments in synthetic pesticides, so any new significant technology that comes in the market is usually brought to the market by small businesses and then required by the bigger companies. Concerning the origin of the pest, it came from the Far East. On the changes in agricultural practices, when the pest became important and an issue for rice growers, the regional department of agriculture organised collective control treatments that are more effective than the individual ones. No individual treatments are implemented anymore. Since the dispensers are only 0,5 m, once the crop has grown it is not possible to see them and it does not interfere with the common practices.

Questions to Dóra Drexler (ÖMKi) and Márton Ruppert (Martinus vineyard) enquired about the nature of the relationship between the research institute and the farmers, in particular with regards to sharing risks. Presenters explained that the relation was so far informal, without contracting and that participation from farmers was on a voluntary basis. Of course risks are taken into account and, if the practice experimented would not work, then it would be stopped immediately, not waiting for the end of the trial. Participants also asked if the techniques developed could be used by conventional farmers, which the presenters confirmed.

Questions to Yann Raineau (VitiREV) addressed the criteria used to define the 14 living labs, the methods used for stakeholder involvement and stakeholders motivations (including facilitation and mediation, the role of regulatory developments on motivating change), the willingness to share information between competing farmers from various areas or the conflict between different interests, the governance of the initiative (who coordinates, the role of the LIT parliament, heaviness of the structures), funding mechanisms, the importance of landscape scales in achieving change, the inclusion of bioeconomy and circular economy concepts in the approaches of the labs, the achievements in transferring results between various crops, the communication and valorisation of a lower pesticide use on the final product and the role of digital transformation. Yann Raineau explained that there is no real or at least no negative competition between the 14 living labs, who perceives themselves as too small to compete and rather have a lot to gain from methodological cooperation, which is enhanced through a lot collective meetings and on-line interaction. The criteria to define the 14 living labs were that they had to be built during 2018 and i) involve a diversity of actors, ii) be set on a defined territory and iii) focus on experimenting. More labs could join in the future. A majority of the labs were initiated by farmers' organisations but two were set up by local authorities, one by a research centre. Regarding actors involvement, Yann Raineau explained that all felt deeply concerned by the pesticide use issue so engaging them was not difficult. In addition, setting a long-term horizon with concrete targets to achieve helped to convince that this was a serious project that would not fade away after 2 or 3 years. The governance is indeed a bit heavy but it is hard to avoid it considering the budget and the issues at stake. The structure with the smaller LITs at local level helps to secure easy access to outsiders

and farmers. Divergences do exist between stakeholders but one aim of the living lab is to help address controversies through helpful tools. The various instances in the governance are there to help this dialogue. Coordinators of the local LITs receive funding for now with the VitiREV support but they will have to think about post project empowerment and sustainability. Yann Raineau was not sure about the motivating role of new regulation but the LITs can surely be a place where implementation of new regulations can be discussed. On facilitators and mediators, the project has identified some certified trainings and facilitators are being trained. But some support is needed from researchers on e.g. sociologists and geographers to understand processes well. Yann Raineau confirmed that, by adopting a territorial approach, the project seeks a landscape transformation. While bioeconomy and circular economy concepts are not used on the ground, they could come up from some of the labs. Winegrowers are testing mixed grazing, agroforestry or multi-cropping, depending on where they are. Sharing practices across crops (e.g. on ground cover) is natural for those who are in mixed areas. Farmers have not discussed new labelling strategies at this early stage of the process: they rather see VitiREV as a catalyst to engage more acres into existing and value-adding standards. Finally, digital transformation in the project aims at both making digital tools more popular among farmers to help them monitor pesticide reductions and improve local knowledge (e.g. with sensors), and building a "VitiDATA" secured platform where all VitiREV members share their acquired data and learnings, and which can in return create value-added services to growers (network exchanges, monitoring...).

Questions to Natalia Silva (FRCT) and Monica Rocha (BIOAZORICA) enquired about criteria to define the innovative character of businesses, about resources that were used to by the project and who developed them, about the circular dimension that was addressed, about the integration of the initiative in a broader regional strategy and whether the Azores planned to become a fully organic region and about what was more prominent for consumers: the Azores origin of the product or its organic character. Presenters explained that the innovation survey looked at all aspects of product, process and marketing innovation and showed that innovation initiatives really happened in only eight cases. These did not mean that the other businesses did not have ideas but that they did not have the inner means to develop these ideas. The tools presented as supporting the project all came from the methodological toolbox developed by LIVERUR to support the living labs, building on anterior work. Regarding circular economy, presenters explained that circularity is not only looked at for primary production (cows feeding on grass) but for all stages of the production, processing, retailing, and marketing process, including transport, which is quite challenging for an island. And on what consumers appreciate the most, they explained that products from Azores are already seen as quite natural by consumers, but the organic certification adds trust and clear criteria to it, strengthening the market. They explained that the regional government had moved tremendously in the recent years on their appreciation of the value added of organic and that there is now a strong strategy to develop in this direction.

Questions to Davide Zimolo and Stefano Bortolussi (AGRILINK) addressed the commonality of common lands and the possibilities to upscale such an initiative. They also addressed the challenges that come from potential clashes in personalities between professional farmers and non-professional farmers when trying to combine their various points of view. Without being able to provide EU-wide figures about commons, presenters explained that they were quite common in the region where several hundred hectares were common land, currently subcontracted to conventional farmers without specific requirements. They also explained that the lessons learnt and benefits of the initiative could expand beyond farmers farming the common land. Relations between professional farmers and newcomers with more urban backgrounds was also felt like something that enriched the project, each actor bringing a different point of view to the table.

Annex 2- Webinars agenda

EUROPEAN COMMISSION WEBINAR SERIES
BUILDING A PARTNERSHIP ON AGROECOLOGY LIVING LABS AND
RESEARCH INFRASTRUCTURES
WEBINARS 3&4: GETTING INSPIRED BY EXAMPLES
4-5 JUNE 2020
AGENDA

Thursday 4 June	
14:15	Virtual room opening – Welcome and connecting to the meeting
14:30	Webinar starts (Start time in Webex invitation)
14:30	<ul style="list-style-type: none">• Short introduction - European Commission<ul style="list-style-type: none">○ Webinars 3&4 in the process○ Objectives of webinars 3&4
14:35	<u>ILVO - Agroecology and organic farming</u> (Belgium) <ul style="list-style-type: none">• The story of the initiative by Fleur Marchand (ILVO)• What's in it for the farmers? Video message from Tijs Boelens (Groentelaar).• Exchange with the audience
15:05	<u>FInAL – Facilitating insects in agricultural landscapes through integration of renewable resources into cultivation systems</u> (Germany) <ul style="list-style-type: none">• The story of the initiative by Jens Dauber (Thünen Institute)• What's in it for the farmers? The experience of Burkhard Fromme (AEG Fromme)• Exchange with the audience
15:35	Break
15:45	<u>Agriculture catchment programmes</u> (Ireland) <ul style="list-style-type: none">• The story of the initiative by Frank O'Mara (TEAGASC)• What's in it for the farmers? The experience of Kevin Murphy (farmer in North Wexford)• Exchange with the audience
16:15	A biocontrol success in Albufera (Spain) <ul style="list-style-type: none">• The story of the initiative by Owen Jones (consultant and former IBMA President), Vicente Dalmau Sorli (Valencian Region agriculture department) and Alessandra Moccia (IBMA Professional Group on Semiochemicals)• Exchange with the audience
16:45	Cross-example discussion, take-aways and closing
17:00	End of webinar

	Friday 5 June
14:15	Virtual room opening – Welcome and connecting to the meeting
14:30	Webinar starts (Start time in Webex invitation)
14:30	<ul style="list-style-type: none"> • Short introduction - European Commission <ul style="list-style-type: none"> ○ Recalling objectives of webinars 3&4 ○ Quick recall from the day before
14:35	<p><u>Participatory on-farm research network on organic farming: experiments on landrace tomatoes and vineyards</u> (Hungary)</p> <ul style="list-style-type: none"> • The story of the initiative by Dóra Drexler (ÖMKi) • What's in it for the farmers? The experience of Márton Ruppert (Manager of the Martinus Vineyard – Participant in the Horizon 2020 RELACS project) • Exchange with the audience
15:05	<p><u>VITIREV: towards environmentally-friendly wine territories in Nouvelle-Aquitaine</u> (France) <i>An example from the “innovation territories” programme</i></p> <ul style="list-style-type: none"> • The story of the initiative by Yann Raineau (VitiREV coordinator) • What's in it for the farmers? Video message from three participating farmers. • Exchange with the audience
15:35	Break
15:45	<p><u>Azores rural living lab on meat and dairy quality and sustainable production</u> (Portugal) <i>A pilot case from the Horizon 2020 LIVERUR project</i></p> <ul style="list-style-type: none"> • The story of the initiative by Natália SA Silva (Azores Government, Regional fund for science and technology) • What's in it for the farmers? The experience of Mónica Rocha, Cooperative Bio Azorica - Organic Production • Exchange with the audience
16:15	<p><u>Rebuilding a local food community starting from sustainable farming and collective actions</u> (Italy) <i>A living lab of the Horizon 2020 AGRILINK project</i></p> <ul style="list-style-type: none"> • The story of the initiative by Davide Zimolo (AIAB) • What's in it for the farmers? The experience of Stefano Bortolussi (farm advisor). • Exchange with the audience
16:45	Cross-example discussion and take-aways. Next steps and closing.
17:00	End of webinar

Annex 3- Attendance list

This attendance list has been composed based on screenshots of the participants in the webinar and on the registration list. Only people for whom there was a name and surname have been included. Affiliations and countries may not be totally correct. Participants who joined by phone are not included. Participants who joined in the middle and left before the end may also be missing.

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
AT	Austrian Chamber of Agriculture	Miron Elena-Teodora	1	
AT	Federal Ministry for Sustainability and Tourism	Ohrloff Chiara		1
AT	FFG - Europäische und Internationale Programme - Nationale Kontaktstelle für Lebensmittel, Land- und Forstwirtschaft, Biotechnologie	Kurz Simone		1
BE	Department of Agriculture and Fisheries, Flanders, Belgium	Delanoy Marleen	1	
BE	Farmer	Boelens Tijs	1	
BE	FIBL org	Deporras Miguel	1	
BE	Flemish Dept. of Economy, Science & Innovation	De Vos Liselotte	1	1
BE	ILVO	Bijttebier Jo	1	1
BE	ILVO- Digital & Agroecology LL	Marchand Fleur	1	1
BE	INAGRO - Onderzoeksleider agromilieu - O&O Agro milieu: AGM	Depraetere Dieter	1	
BE	Institute for Agricultural and Fisheries Research (ILVO)	De Cock Lieve	1	1
BE	SPW Recherche	Petit Carine	1	1
BE	TP Organics	Gernert Maria		1
BE	Uni Ghent - EURAKNOS, EUREKA	Burssens Sylvia	1	
CA	AAFC	Chretien François	1	1
CH	Agroscope (Swiss centre of excellence for agricultural research, affiliated with the Federal Office for Agriculture)	Baur Robert		1
CH	Agroscope (Swiss centre of excellence for agricultural research, affiliated with the Federal Office for Agriculture)	Herzog Felix	1	
CH	FIBL org	Tamm Lucius	1	1
CZ	Technology Centre CAS, PC H2020 SC2 member	Koničková Naďa	1	1
DE	AEG Fromme	Fromme Burkhard	1	
DE	Association of Chambers of Agriculture / Verband der Landwirtschaftskammern - Brussels Office	Ellermann-Kuegler Karin	1	1
DE	BMBF ref. 726	Michel Klaus Peter	1	1
DE	Bundesministerium für Ernährung und	Schubert Sebastian	1	1

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
	Landwirtschaft (BMEL)			
DE	Ecologic Institute, Berlin	Irina	1	
DE	ERANET SusAn + SCAR Sustainable animal production	Saggau Elke	1	1
DE	Federal Ministry of Food and Agriculture, BMEL (Germany)	Stalb Hartmut	1	1
DE	Forschungszentrum Jülich GmbH, Projektträger Jülich	Butler Manning David	1	1
DE	JÜLICH	Lampel Stefan	1	1
DE	JÜLICH	Tinois Nicolas	1	1
DE	Ministry of agriculture - NRN-EIP	Rocha Bettina	1	
DE	Project Management JUELICH	Margraf Stefanie	1	
DE	Thünen Institute	Dauber Jens	1	1
DE	Von Thuenen Institute - Thuenen Institute of Farm Economics	Schwarz Gerald	1	1
DK	Aarhus universitet	Berg Torsten Rødel	1	1
DK	ERANET Core Organic	Trkulja Ivana		1
DK	ICROFS, Aarhus University	Sehested Jakob	1	
DK	Ministry of Environment and Food Denmark	Thomsen Bjarne	1	
DK	Ministry of research and Higher Education, Denmark	Gøtke Niels	1	
EE	ETAG	Saar Kathrin	1	1
EE	Ministry of Rural Affairs	Kalju Anu		1
EE	Ministry of Rural Affairs	Talve Siret	1	
EL	Policy Planning Department, MINISTRY OF DEVELOPMENT AND INVESTMENTS, GENERAL SECRETARIAT FOR RESEARCH AND TECHNOLOGY	Gypakis Antonios		1
ES	Catholic University of Murcia (UCAM)	Heiser David	1	1
ES	CDTI. Spanish expert to cluster 6	González Lydia	1	1
ES	CDTI. State Research Agency/National Institute for Agricultural Research (INIA) - General Deputy for Foresight and Coordination Programs. Coordination of agricultural research;	González Jose Manuel	1	1
ES	INIA. Research Prospection. Spanish expert to cluster 6	Vancanneyt Guy	1	1
ES	INIA. Spanish Expert on agroecology, living labs and research infrastructures.	Sanchez Benjamin	1	1
ES	Innovation and Technology of NEIKER (Basque Institute for Agricultural Research and Innovation)	Ugarte Sagastizabal Eva	1	1
ES	LIFEWATCH - E-SCIENCE EUROPEAN INFRASTRUCTURE FOR BIODIVERSITY	González-Aranda Juan Miguel	1	1

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
	AND ECOSYSTEM RESEARCH			
ES	Ministry of Agriculture, Fisheries and Food	Carrión-Prieto Paula	1	1
ES	SUTERRA	Moccia Alessandra	1	
ES	UCAM	Raso Laure	1	1
ES	University Santiago de Compostela	Mosquera Rosada María Rosa	1	1
ES	Valencian Region agriculture dept	Dalmau Sorli Vicente	1	
EU	Agroecology Europe	Eeckhout Laurence	1	1
EU	CEJA	Debernardini Mariana	1	1
EU	COPA-COGECA	Miles Branwen	1	
EU	ETP Plants	Nanda Amrit	1	1
EU	EUFRAS / VLK (EU Bxl)	Kuegler Michael	1	
EU	European Commission - AGRI - B2	Gaona-Saez Susana	1	1
EU	European Commission - AGRI - B2	Hubert Lysiane	1	1
EU	European Commission - AGRI - B2	Iglesias Marta	1	1
EU	European Commission - AGRI - EFG	Peppiette Zélie	1	
EU	European Commission - AGRI -B2	Rouby Alexia	1	1
EU	European Commission - AGRI -B2	Van Oost Inge	1	1
EU	European Commission - AGRI-D2	Petel Emmanuel	1	
EU	European Commission - ENV	Chovancova Svetlana	1	
EU	European Commission - HR	Hester Zachary	1	
EU	European Commission - JRC	Paracchini Maria- Luisa	1	1
EU	European Commission - RTD	Calikowski Tomasz	1	
EU	European Environmental Bureau	Nyssens Célia	1	
EU	FiBL Europe	Lazzaro Mariateresa	1	
EU	FiBL Europe	Niggli Urs	1	
EU	Food Drink Europe + ETP Food for life	Lazaro Mojica Jonas		1
EU	IBMA	Lewis Jennifer	1	1
EU	IFOAM	Moeskops Bram	1	1
FI	Ministry of Agriculture and Forestry	Karjalainen Eeva	1	1
FR	Agence Nationale de la Recherche	Hippolyte Isabelle	1	1
EU	European Economic and Social Committee	Savigny Geneviève	1	
FR	FACCE secretary general	McKahn Heather	1	1
FR	French Ministry of Research and Innovation	Herpin Patrick		1
FR	INRAE	Gascuel Chantal		1
FR	ISARA	Wezel Alexander	1	1
FR	Ministry of agriculture	Chourot Jean-Marc	1	1
FR	Région Nouvelle-Aquitaine	Raineau Yann	1	1
GR	American Farm School - FRESHFRUIT	Papadopoulos	1	1

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
	S3 project	Filippos		
HR	Center for Food Safety, Croatian Agency for Agriculture and Food, Croatia	Hengl Brigita	1	1
HU	BIOEAST	Kovacs Barna	1	
HU	Hungarian Ministry of Agriculture, NCP, Department of Agriculture, Unit of Research, Development and Innovation	Kunya Zsofia	1	
HU	ÖMKi - Hungarian Research Institute of Organic Agriculture	Drexler Dora	1	1
HU	Ruppert Márton E.V.	Ruppert Marton		1
IE	Department of Agriculture, Food and the Marine	Harrison John	1	1
IE	Department of Agriculture, Food and the Marine (Ireland)	Kennedy Philip	1	1
IE	Farmer	Murphy Kevin	1	
IE	National Contact Point and National Delegate for Horizon 2020 – Societal Challenge 2, Research and Codex Division	Clarke Matthew	1	1
IE	Teagasc	Burgess Edward	1	
IE	TEAGASC	Kelly Raymond	1	1
IE	TEAGASC	O'Mara Frank	1	
IT	AIAB FVG	Bortolussi Stefano	1	1
IT	AIAB FVG	Zimolo Davide	1	1
IT	COPA-COGECA (R&I WP)	Rossi Daniel	1	1
IT	CREA	Cristiano Simona	1	1
IT	ENEA SSPT-BIOAG-SOQUAS	Stefanova Milena	1	
IT	ERIAFF - Tuscany Region	Boscaleri Fabio	1	1
IT	Italian Ministry of agricultural, food and forestry policies - MIPAAF	Albertini Alice	1	
IT	Italian Ministry of agricultural, food and forestry policies - MIPAAF	Grando Stefano	1	1
IT	Repr. in 'Food security, sustainable agriculture..' PC Configuration	Fava Fabio		1
IT	Water-oriented LL - WATER EUROPE	Rubini Andrea		1
LT	VMU Agriculture Academy	Maziliauskas Antanas	1	1
LT	Vytautas Magnus University	Boguzas Vaclovas	1	1
LV	Ministry of Agriculture	Liepina Laura	1	1
LV	Ministry of Education and Science, RIS3	Svane Baiba	1	1
MT	Agency for the Governance of Agriculture Bioresources	Attard George	1	1
NL	FLEVOLAND Labs	Koning Hillebrand		1

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
NL	Land Use and Food Security, Agrosystems Research, Wageningen Plant Research	Siegmund-Schultze Marianna		1
NL	Ministry Agriculture, Nature and Food Quality	Zweep Annet	1	1
NL	Wageningen UR- Field Crops	Schoorlemmer Herman		1
NL	WUR	Dawson Andrew	1	1
NO	The Norwegian Ministry of Agriculture and Food	Anker-Nilssen Kirsti	1	1
NO	The Research Council of Norway (RCN)	Langthaler Gudrun	1	1
PL	Agricultural Advisory Center	Sekowski Mateusz	1	
PL	Ministry of agriculture	Grodzka Ewa	1	1
PL	Ministry of Agriculture and Rural Development	Cieřlikowska Justyna	1	1
PL	Radom of the Agricultural Advisory Centre	Henryk SKORNICKI	1	
PT	ANI (National agency for innovation) - NCP and national delegate for Space and Cluster 6	Sutcliffe Ana	1	
PT	ANI (National Innovation Agency)	Fernandes Maria João	1	1
PT	BIOAZORICA	Rocha Monica		1
PT	Direção Regional da Agricultura	Pavao Ana Luisa	1	
PT	FCT & Science Officer	Maia Maria João	1	
PT	FRCT- Azores	Paramio Luz		1
PT	INIAV	Maçãs Benvindo	1	1
PT	FRCT- Azores	Silva Natalia		1
RO	Agribusiness Financial Management and Agricultural Policies, Dept of Economic Sciences, University of Agricultural Science and Veterinary Medicine Cluj-Napoca	Jitea Ionel Mugurel	1	1
SB	EnoLL	Trajkovic Milica	1	1
SE	COPA-COGECA (R&I WP)	Ivarsson Kjell	1	1
SE	Department for Agricultural Sciences, Swedish research council for environment agricultural sciences and spatial planning (FORMAS)	Jeremiasson Alexandra	1	
SK	General state counselor	Hronček Stanislav	1	1
SK	Ministry of Agriculture and Rural Development, officer	Hreňová Jana	1	
SK	National Agricultural and Food Centre-ARI	Ilkova Lucia	1	
SK	NPPC National Agricultural and Food Centre, Department of project management and external relations	Peškovičová Dana	1	1

Country	Organisation	Name/Firstname	Present 4/6	Present 5/6
UK	Adviser's Office, Defra	Collins Mike	1	1
UK	Lisk & Jones Consultants Ltd	Jones Owen	1	
<i>Unregistered</i>	<i>Unregistered</i>	Kozyra Jerzy		1
<i>Unregistered</i>	<i>Unregistered</i>	Lisa	1	
<i>Unregistered</i>	<i>Unregistered</i>	Müller Wiebke	1	
<i>Unregistered</i>	<i>Unregistered</i>	Sitarz Wojciech	1	

