

eip-agri  
AGRICULTURE & INNOVATION



# EIP-AGRI Workshop

## Opportunities for farm diversification in the circular bioeconomy

FINAL REPORT  
MAY 2019

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## Introduction

This EIP-AGRI workshop on 'Opportunities for farm diversification in the circular bio-economy' was developed in recognition of the number of co-operation mechanisms and business models that have been developed to bring forward circular bio-economy projects and enterprises across the EU. It was organised by the European Commission Directorate General for Agriculture and Rural Development and the EIP-AGRI Service Point and hosted by the Ministry of Agriculture of the Republic of Lithuania.

This event forms part of a continuing exploration of the opportunities available to farmers and foresters through the circular bio-economy and how these opportunities might best be captured. This includes an earlier workshop for policy makers on the integration of primary producers into the circular bio-economy, and an ongoing Thematic Group hosted by the European Network for Rural Development (ENRD). It is anticipated that further events and activities on this theme will take place as the sector continues to develop and innovate.

## Brief description of the process

The circular bio-economy can be an important source of diversified and stable income for farmers and foresters as well as a catalyst for the creation of high-quality jobs, competitiveness and growth in rural areas. Enterprises within the circular bio-economy can create business opportunities based on modern digital technologies and innovative business practices. By adopting innovative business models that make better use of waste streams, including the recovery of nutrients, farmers and foresters can make an important contribution to a more circular and resource-efficient economy in the EU's rural areas while complimenting their income.

The aim of the event was to identify, share knowledge of and promote a set of promising co-operation mechanisms and business models for the circular bio-economy, allowing for diversification of economic activities in rural areas, increasing farm income, minimising risk and enabling a healthier environment. Consequently, the workshop was designed to share the latest policy updates, create opportunities for discussion of the types of circular bio-economy products that could be developed, and the most appropriate business models associated with them, and finally some open space time to explore questions and themes brought forward by participants.

Together it was hoped that the workshop would achieve the objectives of:

- ▶ enabling better understanding of the opportunities available and the benefits of diversifying within the circular bio-economy sector,
- ▶ investigating the co-operation mechanisms and business models that best enable farmers and foresters to enter the sector, and;
- ▶ exploring how working together can improve the success of circular bio-economy diversifications.

Nearly 100 participants from 16 different countries attended, including members of Operational Groups (OGs), multi-actor projects under Horizon 2020 (H2020), including the Bio-based Industries Joint Undertaking (BBI JU). There was a diverse range of individuals including farmers and foresters, researchers, bio-economy specialists, industry leaders and advisers.





## Setting the scene

After an engaging welcome to Lithuania and Vilnius from Darius Liutikas, the Vice-minister from the Ministry of Agriculture of Lithuania, Alberto D'Avino (DG AGRI) provided an overview of the DG AGRI and EIP-AGRI activities relating to the circular bio-economy. He explored EIP-AGRI's role in using partnership working to close the gap between research and practice to develop solution-based knowledge sharing. The EIP-AGRI network was explained in further detail, including the number and focus of OGs and the nature of H2020 multi-actor groups. This included highlighting the work of the EIP-AGRI Focus Group on 'Enhancing production and use of renewable energy on the farm' and two previous workshops; one on the circular economy and another focused on building new biomass supply chains.

To understand the different types of projects further and how they operate in practice, short interviews were held with representatives from each:

- ▶ **Operational Group - Digestate\_100%: Paolo Mantovi** briefly explained the OG he is involved in, which is developing an integrated system that maximises the efficient use of nutrients of the digestate from biogas plants, reducing the need for mineral fertilisers to zero. Paolo was looking to connect with people throughout the event to share his project and learn more about other people's activities.
- ▶ **Horizon 2020 - MAGIC & PANACEA: Eftymia Alexopoulou** is involved in two H2020 projects. MAGIC aims to support the successful cultivation of industrial crops on marginal lands and PANACEA seeks to design pathways to ensure the successful adoption of non-food crops by EU farmers. Efi was really excited to be participating in the workshop and expressed her desire to discuss and collaborate with as many participants as possible.
- ▶ **Bio-based Industries Joint Undertaking as part of H2020 - ICT-BIOCHAIN: James Gaffey** is the Scientific Coordinator of this project focused on developing efficient biomass supply chains for sustainable chemical bio-economy regions, creating the EU's first Digital Innovation Hubs for a Circular Bio-economy. He was looking to the workshop to challenge some of his ideas and explore more deeply with participants the other projects and activities which were happening.

All three representatives wanted to learn more about how to mainstream the ideas and innovations which were being piloted by the participants and to look for ways of continuing to work with each other after the event.

Information on these and other projects is available in the [workshop project booklet](#).

## Presentations

The first set of presentations explored the policy framework and reviewed on-going activity at the EU level to support the circular bio-economy.

**Liutauras Guobys from the European Commission DG RTD** introduced the updated EU Bio-economy Strategy 'Innovating for Sustainable Growth, a Bio-economy for Europe' and its aim to 'pave the way to a more innovative, resource efficient and competitive society that reconciles food security with the sustainable use of renewable resources for industrial purposes, while ensuring environmental protection.' The size and nature of the sector was explored including the new types of value chains developing; biomass, biorefineries, industrial applications and consumer goods and the innovative opportunities to tap into the Commissions proposed allocation of €10 billion in the future Horizon Europe Research and Innovation programme. Eight Member States were already identified as having a dedicated bio-economy strategy with 15 in the process of developing or planning their own. Fifty regions also have their own bio-economy related strategy and even a few cities have supportive priorities in their policies.

The commitment to support the sector was evident with many of the potential benefits fitting with and possibly driving EU policy priorities around job creation, climate mitigation, a renewed and strengthened EU industrial base, the circular economy and healthy ecosystems and biodiversity. Liutauras completed his presentation by laying out the key actions now being pursued by the Commission:

1. strengthen and scale-up the bio-based sectors, unlock investment and markets,
2. deploy local bio-economies rapidly across Europe, and;
3. understand the ecological boundaries of the bio-economy.

This presentation was followed by feedback on a recent workshop for policy makers on the integration of primary producers in the circular bio-economy. **Jose Ruiz Espi from the European Commission DG AGRI** explained how the increasing significance of the bio-economy had led to the need to reflect on the role and position of primary producers within the sector. The workshop took place in Brussels in September 2018 with 120 participants exploring how to design and implement national strategies and explored innovative business practices which had successfully involved primary producers as more than just suppliers.

That workshop concluded that the required success factors were:

- ▶ developing appropriate governance frameworks,
- ▶ promoting appropriate business models,
- ▶ increasing awareness among primary producers,
- ▶ primary producer cooperation,
- ▶ developing a national/regional bio-economy strategy, and;
- ▶ linking future CAP strategic plans and the National Bio-economy Strategies.

It was also felt that many of these success factors could be captured in small-scale business models.



**Laura Jalasjoki from ENRD** then provided an update on their Thematic Group on the circular bio-economy. So far, the Thematic Group has delivered analytical work including a set of recommendations and an inventory of good practices. Three meetings have already taken place alongside Twitter chats and video conferences. To support dissemination of their work, a rural bio-economy portal has been established, supported by videos and a seminar which is planned for July 2019.

**Kevin O'Connor, the Chairperson of the Scientific Committee of the BBIJU** then provided a framework for the workshop, exploring the nature of the bio-economy, the role of farmers and foresters, and provided some inspirational case studies of bio-economy enterprises in practice. He began his presentation focusing on the necessity of transitioning from a fossil to a bio-economy, exploring the diverse range of products that can be developed through this sector including natural capital and biodiversity. He also discussed the human and animal health and nutritional benefits, as well as those for soil health. Kevin emphasised the current situation where primary producers tend to be at the bottom of the value chain and the need for them to re-organise, acquire the necessary skills and stimulate innovation to enable them to join value chains as equal partners. He then explored several inspirational circular bio-economy projects and the role successful partnership working had played in bringing them forward.

The presentations can be found on the [event webpage](#).



## Four corners Q&A

Four presenters then talked about circular bio-economy projects that they were involved in, providing participants with a snapshot of their activity. Each presenter then took a corner of the room with participants invited to ask further questions about those projects which were most relevant to them.

**Corner 1: Lucrezia Lamastra is a researcher at the Università Cattolica Del Sacro Cuore (Italy)** and also manages an Operational Group (OG) called SCOOTER based in the Emilia-Romagna Region. The region has more than 25,000 farms producing fresh fruit and vegetables which all generate wastage of between 5 and 25%. The SCOOTER project is trialling a new biodiesel process using larvae to maximise the value of these residues whilst diversifying farm activities. The OG includes three farms, researchers and technicians from two Universities, an experimental farm and trainers from a regional institution. The larvae (*Hermetia illucens*) digest the fruit and vegetable biomass and convert it into proteins and fats which are then used to produce biogas and biodiesel, with the residues used to feed a pyrolysis plant obtaining energy and syngas. Biochar is created as a by-product and is being tested on fields as a soil improver. Bio-oil is a further by-product which will be used to obtain fine chemicals for use in industry.

Two plants have been developed; the first at the university is used to identify the optimal conditions for larvae digestion working with just a small amount of fruit and vegetable waste, and the second at the experimental farm is under construction and will digest hundreds of kilograms. The digestion of residues using larvae is efficient, requires little space and only a short amount of time, it does not create an odour, is relatively simple and economically successful. All the trials have seen a reduction in waste materials, an increase in the larval mass and a good rate of transformation into lipids. The main aim of the study is to create half a litre of biodiesel from one kg of larvae. Producing biodiesel from larvae is an effective way of reducing water and land use when compared to the production of biodiesel from dedicated bioenergy crops.

**Corner 2: Tuula Raukola works as a Development Agent in Prizztech Ltd;** a development company owned by the municipalities in the Pori region of Finland. Pomarkku is a partnership of 22 farmers who produce energy from burning wood collected from clearings in their forests. They sell this to the municipality of Pomarkku saving them €120,000 a year in energy costs, generating more profit for the farmers than from selling their wood for paper pulp. The project includes 4 farmer-operated wood chip burning plants distributed across the area making it easier to operate and reducing transportation costs. Tuula then also explored an additional project REKO, which is a retail and distribution model where consumers contact farmers through Facebook to agree on the products they will buy and the place and time the will be sold. The farmers create their own informal agreements with the consumer, also establishing sales points at drop offs where anybody can go to buy the products.

**Corner 3: Johan Sanders, CEO of Sannovations** proposed a problem, that feeding grass to cows is inefficient and so grass can be used more efficiently. He introduced the biorefinery company Grassa!, where grass and other green raw materials are separated into different parts. After refining the part that is useful for the cows it will be fed to them and the remaining parts of the grass will be used elsewhere. This ensures greater value from the same amount of grass and produces less, better quality manure. Some components of the feed can be harmful for the animals and these could also be removed. It is also possible to use the Grassa system for horticultural waste, so it has great potential in other areas such as Spain. With this biorefining method it is possible to separate proteins, soluble compounds etc. and to extract starch and recycle most of the minerals. This gives higher economic profitability, which is especially important in developing countries.

**Corner 4: Fernando Sebastián Nogue is coordinator of the AgroInLog Horizon 2020 project** and is exploring the concept of Integral Biomass Logistic Centres. He explained how this model could be replicated in farms and on small agro-industrial sites across Europe. Specific cases involving cereal production in Spain and olive production in Greece were highlighted, both of which are experimenting with how to organise the logistics for biomass which was previously considered and treated as waste. Cooperation between farmers was considered the most essential element for organising biomass value chains.



## Sharing experiences: The opportunities farmers and foresters could pursue when diversifying into the circular bio-economy

The participants joined themed interactive sessions where they were asked to explore the opportunities for different farming sectors to enter the circular bio-economy. They split into four groups with an inspirational speaker presenting their own project which related to the farming sector being discussed:

- ▶ **Livestock farming:** James Gaffey focused on developing efficient biomass supply chains for the creation of sustainable bio-economy regions.
- ▶ **Arable farming:** Ana Trettenero discussed a biogas plant which is run in cooperation with other arable farmers.
- ▶ **Permanent crops:** Tomas Fenix talked about the different ways of processing fresh fruits that cannot be sold directly.
- ▶ **Forestry:** Bernard Carey explored the opportunities for turning biomass into biochar as a bio-economy option for the forestry sector.

In each room the participants were then asked to work through three questions.

In the first question they worked together as a whole group to identify for their farming sector:

- *What by-products could we add value to and what could they be turned in to?*

Each table then chose one of these by-products to explore further answering the following question in depth:

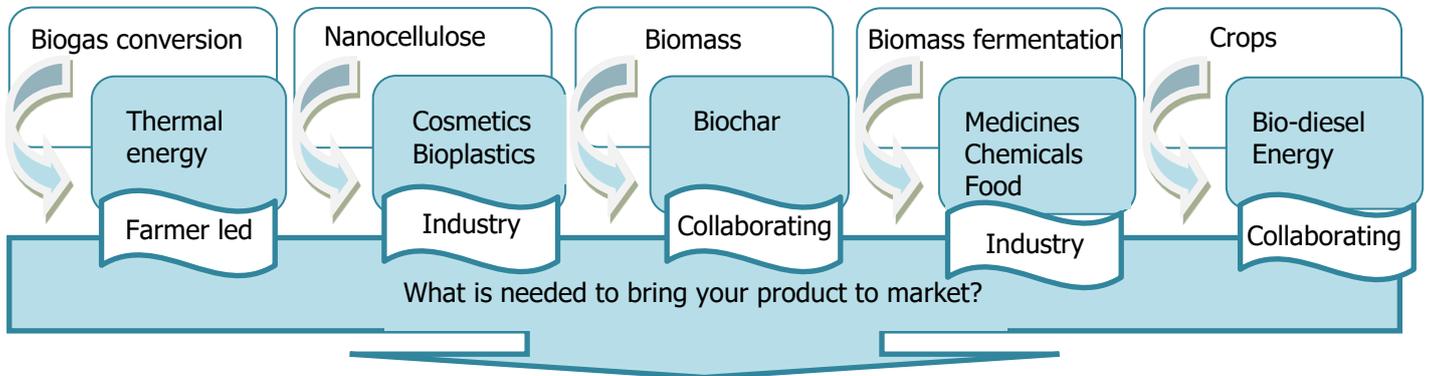
- *What technology, other innovations or support are needed to bring your by-product to market?*

And then taking a short amount of time to identify:

- *Which business structure would work best when bringing this by-product to market?*
  - Farmer led: An individual farm or forestry enterprise, or a collaboration of local holdings
  - Collaborating: Farmers or foresters collaborating at a regional or national level
  - Industry: Partnering with industry

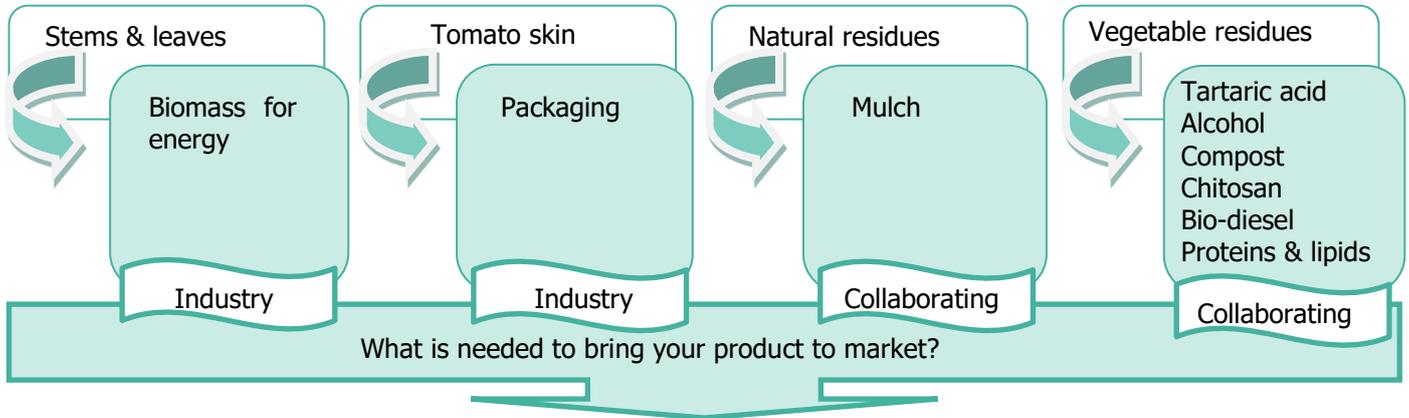
The results of the session are laid out below by farm type:

**Arable**



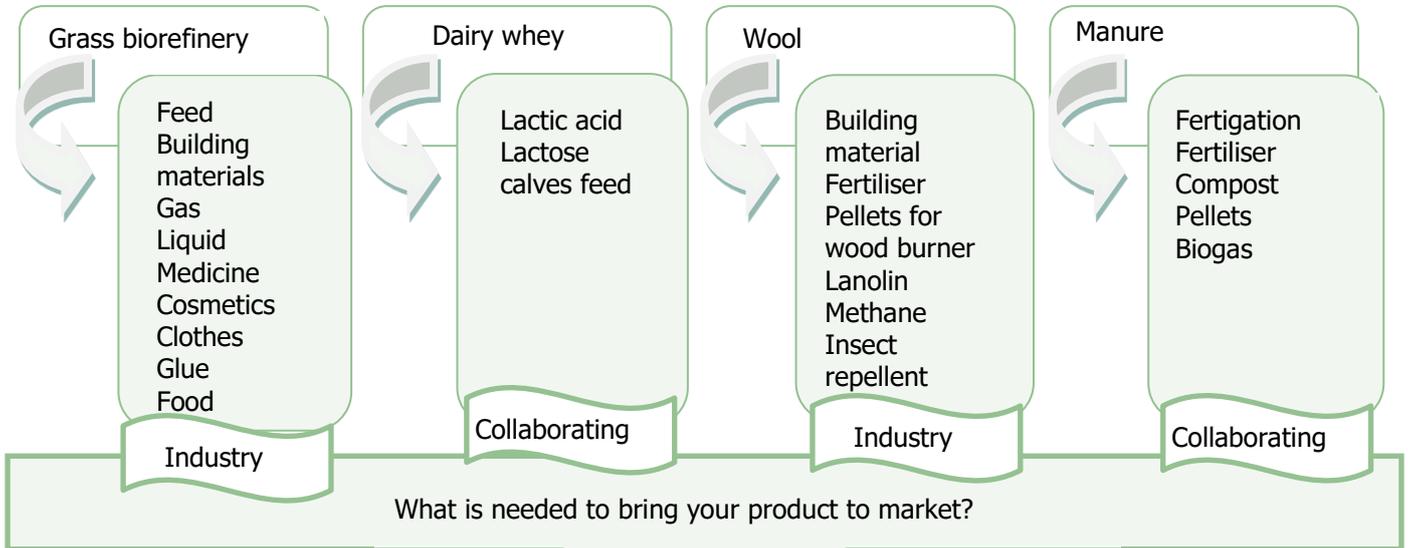
Technology	Regulation	Logistics	Business
<ul style="list-style-type: none"> <li>- Increases in production efficiency</li> </ul>	<ul style="list-style-type: none"> <li>- Regulatory standards</li> </ul>	<ul style="list-style-type: none"> <li>- Small scale bio-refinery</li> </ul>	<ul style="list-style-type: none"> <li>- Applied research</li> <li>- Education</li> <li>- Advisory services</li> <li>- Business planning</li> <li>- Financing</li> <li>- Co-operation</li> <li>- Entrepreneurial flair</li> <li>- Feasibility studies</li> <li>- Market research</li> </ul>

### Permanent crops



Technology	Regulation	Logistics	Business
<ul style="list-style-type: none"> <li>- Reduce costs</li> <li>- Bespoke equipment</li> <li>- Freeze drying</li> <li>- Ensuring quality</li> </ul>	<ul style="list-style-type: none"> <li>- Regulatory standards</li> <li>- Regulations on waste reuse</li> </ul>	<ul style="list-style-type: none"> <li>- Value chain structures</li> <li>- Value chain stakeholders</li> <li>- Transport costs</li> <li>- Collecting from many small farms</li> <li>- Development of short supply chains</li> </ul>	<ul style="list-style-type: none"> <li>- Willingness to adapt</li> <li>- Risk management</li> <li>- Economic feasibility</li> <li>- Consumer preferences</li> <li>- Pilot projects</li> <li>- Knowledge sharing</li> </ul>

## Livestock



Technology	Regulation	Logistics	Business
<ul style="list-style-type: none"> <li>- Developing new processes</li> <li>- Ensuring quality</li> <li>- Packaging</li> </ul>	<ul style="list-style-type: none"> <li>- Regulatory standards</li> <li>- Labelling</li> </ul>	<ul style="list-style-type: none"> <li>- Co-operative processing facilities</li> <li>- Distribution channels</li> </ul>	<ul style="list-style-type: none"> <li>- Investment</li> <li>- Market research</li> <li>- Partnership with universities</li> <li>- Connecting partners</li> <li>- Market development</li> </ul>

## Forestry



Technology	Regulation	Logistics	Business
<ul style="list-style-type: none"> <li>- Placing biochar plant close to potential users</li> <li>- Increased yield</li> <li>- Carbon pooling with other owners</li> <li>- Sap technology</li> </ul>	<ul style="list-style-type: none"> <li>- Grants</li> <li>- Woodland carbon accreditation</li> <li>- Fiscal regime</li> <li>- Awareness raising</li> <li>- Illegal harvest controls</li> </ul>	<ul style="list-style-type: none"> <li>- Mobile processing units</li> <li>- Traceability</li> <li>- Value chain agreements</li> </ul>	<ul style="list-style-type: none"> <li>- Research</li> <li>- Co-operative working</li> <li>- Advisory services</li> <li>- Market information</li> <li>- Marketing tools</li> <li>- Training</li> </ul>

## Sharing experiences: Exploring the business models needed to bring product innovations to the market

The second sharing experiences session built on the outputs of the previous session. The participants once again split into four rooms, this time to focus on new or inspiring business models, utilising the by-products which they had identified the day before. The rooms focused on the three business model types which they had used to categorise the by-products:

- ▶ **Farmer led:** An individual farm or forestry enterprise, or a collaboration of local holdings
- ▶ **Collaborating:** Farmers or foresters collaborating at a regional or national level
- ▶ **Industry:** Partnering with industry

Each table then chose one or more by-products from their business model type and answered the following questions:

1. *What are the challenges you would face when developing the business model needed to enable your enterprise?*
2. *What solutions would help you to overcome these challenges?*
3. *What steps would you now take to implement the business model required and start your enterprise?*

The results of the session are laid out below by business model type:

<b>Farmer led: a single enterprise or a local collaboration</b>	<p><b>Challenges</b></p> <ol style="list-style-type: none"> <li>1. <b>Costs of diversification &amp; financial risk</b></li> <li>2. <b>Limited technology</b></li> <li>3. <b>Understanding production methods</b></li> <li>4. <b>Legal frameworks</b></li> <li>5. <b>Ethical issues of intensive farming</b></li> <li>6. Enough interested farmers</li> <li>7. Inappropriate transportation methods</li> <li>8. Ineffective marketing</li> <li>9. Farm health and safety</li> </ol>	<p><b>Solutions</b></p> <ol style="list-style-type: none"> <li>1. <b>Establish collaborative structures</b></li> <li>2. <b>Training, benchmarking &amp; pilot studies</b></li> <li>3. <b>Invest in transportation</b></li> <li>4. <b>Deliver marketing campaigns</b></li> <li>5. Spread the financial risk</li> <li>6. Partner with businesses that have the technology</li> <li>7. Health standards</li> </ol>
	<p><b>Next steps</b></p> <p>The key next steps were <b>creating the producer collaborations</b> using robust contracts and agreements, developing a shared business plan, and marketing the products. <b>Legal and financial aspects</b> followed including ensuring the financing and all the permissions were in place. Further aspects included external factors such as securing contracts with distributors.</p>	

Collaborating: Enterprises collaborating at a regional or national level

### Challenges

1. High logistics costs
2. Realising the required investment
3. Lack of market know how
4. Collection and storage
5. Poorly developed market
6. Farmer scepticism towards cooperation
7. Managing seasonality
8. Abiding by regulations
9. Finding the right technology
10. Lack of farm led innovation
11. Lack of product knowledge
12. Understanding the legislation
13. Understanding pricing

### Solutions

1. Financial support for sustainability
2. Training and advisory help
3. Close cooperative management
4. Communicate with the authorities
5. Process development & piloting
6. Marketing & defining market prices
7. Appropriate technology
8. Division of business shares based on farmers input
9. Regulatory framework which favours farmer led businesses
10. Robust storage
11. Regional by-product databases

### Next steps

The key next steps were **obtaining the necessary investment**, creating the **producer collaborations** ensuring they are properly rewarded, and assessing the **market need and available resources**. **Business development** aspects such as training, marketing and launching research were mentioned, followed by ensuring **legal obligations** were met and working with logistics providers to find a solution.



**Industry: Partnering with industry**
**Challenges**

1. **Balancing cost benefit for all stakeholders**
2. **Ensuring a consistent supply**
3. **Lack of innovative technologies**
4. **Lack of trust or incentives to partner with industry**
5. No clear regulatory structure
6. Developing a new market
7. How to get paid for ecosystem services

**Solutions**

1. **Ensure producers are also shareholders**
2. Raising awareness of the opportunities
3. Utilising producer associations as honest brokers
4. Stricter penalties
5. On-going product development
6. Certification including traceability

**Next steps**

The key next steps were **business planning** including developing the right business models and ensuring **political support** for developing the right policies and legal frameworks. Creating **legal agreements** and company structures, ensuring all the key players were on board was mentioned next. Other **external factors** included developing the value chain including consistency of supply, improving technologies and increasing market awareness particularly with consumers.



## Open space – finding solutions together

Throughout the event participants had been encouraged to contribute the ideas, questions and debates they wanted to include in the Open Space session. The different suggestions were presented and discussed, with each topic being hosted by the proposing participant. The topics were:

- involving and educating consumers with sustainable products,
- poultry and egg production: input and waste ideas,
- maximising the value of farm natural capital to the farmer,
- small scale biorefineries,
- sustainable forest ecotourism,
- biochar and heat treatment of animal livestock wastes,
- grass production and use,
- agroforestry for multiple uses,
- waste in the wine sector,
- **can farmers contribute to and benefit from reduction in CO<sub>2</sub> emissions?**
- indicators for assessing circular bio-economy solutions,
- organising small and medium scale farmers to benefit from the opportunities the sector brings,
- bioplastics.

### Can farmers contribute to and benefit from reduction in CO<sub>2</sub> emissions?

This topic proved to be popular, with the group exploring ways to promote the contribution of farmers to climate-friendly practices. Agricultural activities are generally net carbon emitters and so contribute to climate change. The challenge is to significantly reduce CO<sub>2</sub> emissions by 2050. Europe is moving towards carbon sequestration at a country level, but can this be achieved on farm?

Participants argued that the market for carbon could be divided in two: the market from companies that are polluting and by law are required to deal with the extra carbon, and the voluntary market including farmers and citizens.

Hence, companies such as those in the chemical industry would need to reduce CO<sub>2</sub> emissions, whereas agriculture could provide sub products to the chemical industry that can help reduce these emissions. On farm it is possible to reduce carbon emissions a number of ways, including increasing energy efficiency, utilising renewable energy sources, reducing food waste, integrating forestry into agriculture and increasing carbon sequestration on agricultural land.

The group suggested that, to achieve on farm changes, information and awareness-raising actions, as well as identifying markets for all alternative harvests, are needed to support farmers to recognise the added benefit of changing current practice and so move beyond the status quo. Revenue could be provided for farmers that are actively conscious of carbon emissions and are open to adopting better practices to reduce their impact on climate. Changing policy measures could be the key to achieving this, encouraging new business models that enable farmers to reduce CO<sub>2</sub> emissions.

The open-space discussions highlighted that a policy system could be developed where there is no net cost to the average farmer – some farmers would gain, others would lose. It could be introduced with low taxes and subsidies at first, to be increased gradually so farmers are given time and the incentive to innovate. Scaling the CAP greening measures, for example by promoting the maintenance of permanent grasslands could also incentivise diversification. There could be further incentives to grow new crops such as biomass for utilisation in plastics, furniture, etc. and support for infrastructural investments to achieve these changes on farm.

The **Open Space discussions** were the catalyst for interesting debate and the sharing of ideas and experiences. The groups fed back some of their key conclusions including challenges and new ideas.

The event was then closed by Alberto D'Avino who spoke of the high levels of engagement and enthusiasm from all the participants. Working together some inspirational conversations and ideas had emerged and Alberto encouraged everyone to continue to develop these topics and discussions once they had returned from the workshop. He thanked everyone for their inputs and reminded them of the opportunities available through EIP-AGRI.



## Some words from the participants

**Whilst I was there...** the combination of interesting presentations and people was what I enjoyed most. There were lots of great discussions going on after every presentation. I also liked the idea of running the workshops from challenges to solutions, looking at the same time at the different business models that could be adopted.

**Since I've been back...** I've made a small report about the event and delivered it to our steering committee and people in our Ministries. I am also planning to spread some of the ideas to our client farmers.

**Mikko, Finland**

**Whilst I was there...** The diversity of people's expertise at the workshop and the great atmosphere that dominated the meeting were quite impressive. The meeting helped me realise how important those kinds of events are when they are well organised and moderated, which was a key factor of the workshop's success.

**Since I've been back...** I met several interesting people and have already established links for sharing research results and designing future projects. The way that the meeting was organised has given me ideas to adopt when organising project meetings and seminars myself.

**Georgios, Greece**

**Whilst I was there...** I found the breakout groups to be excellent with participants very generous with suggestions and where funding could be sourced, especially through the RDP. It was excellent to hear from the experience of people who are working on specific EIP Projects, this was invaluable.

**Since I've been back...** I am working on a collaboration project with ten other forest owners on developing a close to nature forestry tourism project in the centre of Ireland. Many of the ideas and suggestions I received at the workshop have encouraged me to pursue this project.

**Pádraig, Ireland**



**Whilst I was there...** One of the most interesting things was the breakout sessions where we were given the opportunity to form small groups and discuss ideas and products. I found this brainstorming session very helpful since it gave me the opportunity to exchange ideas with people from very different backgrounds. The time available in those sessions provided enough pressure to yield solutions and take decisions, while having to deal with a multidisciplinary team of experts.

**Since I've been back...** The meeting helped me realise the importance of EIP-AGRI's activities and the role they can play in the effective dissemination and implementation of research results but also in shaping the future of EU research and maximising the potential of human resources.

**Georgios, Greece**

**Whilst I was there...** Hearing about the subject itself was the greatest benefit for me, because I did not know how far the EU's thinking on this had developed. Also, hearing how many of these types of projects are already running underlined the practical feasibility of the approach. To this end, my network has expanded enormously, which is a big advantage as I am interested in the implementation of projects of this kind in my area.

**Since I've been back...** It was really lucky that I was part of this workshop as a short time later I got an interesting job offer with some political influence. In my federal state, there is little awareness of the circular bio-economy and I can now use my position to direct funds towards research and to initiate concrete agricultural projects in the sector.

**Tim, Germany**

**Whilst I was there...** I found out that the Lithuanian Ministry of Agriculture is very interested in supporting the development of the bio-economy in Lithuania. I also met people from different institutions and had the opportunity to discuss possible cooperative activity developing the bio-economy and creating new projects.

**Since I've been back...** A week after the workshop there was an event in Lithuania focused on the circular bio-economy where, with senior representatives from the Ministry of Agriculture, we discussed whether the Ministry could take a lead developing the bio-economy sector in Lithuania. This would position the sector within a Ministry and enable the creation of a strategy supporting the growth of the sector. A week later I worked with the University of Agricultural and the Deputy Minister of Agriculture Mr. Liutikas to submit an application to secure funding for the development of a national bio-economy strategy. We hope that this will be successful and enable the creation of the strategy by the end of next year.

**Mindaugas, Lithuania**





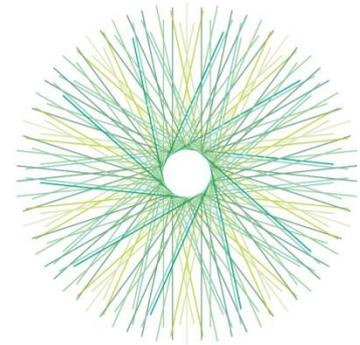
**The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI)** is one of five EIPs launched by the European Commission in a bid to promote rapid modernisation by stepping up innovation efforts.

The **EIP-AGRI** aims to catalyse the innovation process in the **agricultural and forestry sectors** by bringing **research and practice closer together** – in research and innovation projects as well as *through* the EIP-AGRI network.

**EIPs aim** to streamline, simplify and better coordinate existing instruments and initiatives and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI:

- ✓ the EU Research and Innovation framework, Horizon 2020,
- ✓ the EU Rural Development Policy.

[Event webpage](#)



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