







Subgroup on Innovation for agricultural productivity and sustainability

3rd Meeting

17 November 2015

REPORT











The Subgroup on Innovation met for the third time in Brussels on 17 November 2015. The <u>Final programme</u> included four topics:

- I. Overview about ongoing & past events + overview about the RDP and OG approval progress
- II. Putting the outline work plan 2016 together
- III. Further elaboration of the EIP-AGRI networking activities in 2016
- IV. Preparing for the Rural Networks' Assembly meeting of 26/11/2015

I. State of play Rural Development Programmes and EIP-AGRI programming, first experiences with EIP-AGRI implementation

The meeting was opened by Rob Peters, Head of Unit DG AGRI H5 (Research and innovation). Following the opening words, he (link to presentation) gave an overview of past and upcoming EIP-AGRI events, the state of play of the EIP-AGRI programming within the Rural Development Programs as well as the preparation of the long term strategic approach to agricultural research and innovation. The draft strategy document was available for the participants and they were invited to give their comments to DG AGRI H5. The strategy will be presented in the agricultural research conference scheduled on 26 -28. January 2016.

Fabio Cossu (DG AGRI H5) presented the outcome of the <u>Workshop on "Opportunities for Agriculture and Forestry in the Circular economy</u>" held in Naantali, Finland 28-29 October. The overall objective of the event was to bring relevant partners together and to discuss the role of agriculture and forestry in the circular economy, to identify challenges and opportunities and to define concrete actions.

The workshop gathered some 80 participants from 24 MS + Norway. 6 case studies were presented and the field visit presented *BIOvakka biogas plant*: nutrient recycling and energy production from waste and by-products (e.g. manure). Further information: <u>EIP-AGRI workshop webpage</u>.

Aniko Seregelyi (DG AGRI H5) presented the outcomes from the <u>EIP-AGRI Workshop "Networking for Innovation under measure 16 in the RDPs"</u> which took place 27-28 October 2015, Tallinn, Estonia gathering NRNs, namely the EIP support units. The main objective was to get an overview about the implementation of EIP-AGRI, to exchange ideas and first experiences about EIP-AGRI implementation in particular as regards support to Operational Groups. Participants discussed possibilities to improve information exchange / networking, needs to design the collaborative area on the EIP-AGRI website. Innovative cooperation actions under measure 16 other than operational groups were also briefly discussed.

The building up of the Operational groups will be followed up and analyzed further in EIP-AGRI Workshop <u>'First experiences with Operational Groups'</u>. The main questions will be: How are the first Operational Groups being setup and how to successfully build a supporting environment? The









workshop was due to be organised 20 - 21 January 2016 Legnaro, Veneto region, Italy but was postponed to 20-21 April 2016 in order to gain more experience in launching operational groups.

The Subgroup was informed that an EIP-AGRI Seminar 'Promoting creativity and learning through agricultural knowledge systems and interactive innovation was going to be held in Dublin 3 - 4 December 2015. The topic of the first day is: Developing our understanding of Agricultural Knowledge and Innovation Systems (AKIS). The second day will concern practical experiences of improving knowledge exchange and promoting interactive innovation.

<u>Horizon 2020 calls for 2015</u> were presented: They resulted in 16 Multi-Actor projects, including 7 Thematic Networks.

Sirpa Karjalainen (DG AGRI H5) presented a summary of the <u>ongoing Focus Groups and their outcomes</u>. At the time of the subgroup meeting all together 18 Focus Groups had been launched, of which 7 have given their final report.

There would be at least 4 new Focus Groups to be launched during the year 2016. Fabio Cossu presented the idea and draft question of new FG 19 Agronomic Use of Recycled Nutrients; how to improve the agronomic use of recycled nutrients (N and P) from livestock manure and other organic sources? This was discussed. The call for participants will be launched at the end of February 2016.

II. Putting the EIP-AGRI Work plan 2016 together

The second part of the morning session concentrated on the EIP-AGRI activities in 2016.

Introducing the first interactive session for the EIP-AGRI work plan 2016, Sirpa Karjalainen presented the three highest ranked themes by the Subgroup at its previous meeting:

- Topic one; 'Biodiversity, ecosystem services, soil functionality and sustainable water management' is very broad and is already closely linked with five of the ongoing Focus Groups.
- Topic two 'Forestry' has not been discussed so far in any Focus Group but will have linkage with the FG 19 above.
- Topic three: 'Short supply chains and rural-urban linkages' is discussed in the FG: Short supply chain and has been discussed in FG: New entrants into farming.

Participants were divided into three groups, each group discussing one of the three topics mentioned above. For all the groups the questions were:

- what topics for this theme should be addressed in 2016?
- How to address this topic using the tools and types of activities of the EIP-AGRI network?

A detailed list of the subjects discussed by each group is presented in the <u>annex 1</u> to this report.









In summary, the following topics and suggestions were agreed by the Subgroup for each theme:

Theme 'Biodiversity, ecosystem services, soil functionality and sustainable water management':

Introductory presentation was given by Mr Bram Moeskops IFOAM, EU on SOLMACC: "Organic farmers countering climate change". Optimising ecosystem services should be further explored in Focus Group on agroforestry 2016.

- Sustainability indicators and tools for farmers should be discussed and best practises gathered in a workshop 2016.
- Soil, water and irrigation question could give the basis for a focus group comparing sustainable methods with the advisory point of view.

Theme 'Forestry'

had the introductory presentation of Mr. Marko Mäki-Hakola. MTK, FI on <u>"How to improve forestry value chains in Southern and Central Ostrobothnia –project (MERSU)"</u>

- Multiple uses of forests are one of the most important parts of the growing bio-economy and should be further elaborated in a workshop during 2016.
- Sustainable wood mobilisation is more targeted theme and should be further explored in a Focus Group during 2016.
- Climate change adaptation of European forests should be also further elaborated in a Focus Group.

Theme 'Short supply chains and rural-urban linkages'.

Introductory presentation was given by Mr. Jan-Willem Vanderschans, WUR, NL on <u>"Masterclass on Short Food Supply Chain"</u>.

• The food cluster connected especially to the urban food policies should be further elaborated in a workshop during 2016.









III. The break out session to further elaborate other themes and topics proposed by the subgroup and/ or introduced in the website

Introduction to the interactive session II: "Other themes and topics" was given by Margarida Ambar EIP-AGRI SP.

Participants were asked to choose the discussion table according to their interest. All groups were asked to break down the themes and find out what would be the most interesting and concrete theme under the headline and then suggest the type of activity for EIP-AGRI 2016 work plan which would advance the development under the topic.

Four break-out tables organised according to headings which were also ranked high during the June meeting of subgroup and suggested in the web sites:

- focus on sectors: wine, olives, etc.,
- food quality,
- · precision farming and
- possible new themes

A lively discussion took place at each table. Details on the subjects discussed by each table are listed in the annex to this report.

After the discussion the break-out group outcomes were presented to all of the subgroup members for comments and feedback. The following topics and suggestions for the further work aroused the most interest:

Focus on sectors

- Livestock (focus group)
- Wine diseases (focus group)

Food quality

• Multi-actor view on food quality (food & cities workshop)

Precision farming

ICT/ new business models moving towards a digital community (seminar)

Possible new themes

Agriculture & health (workshop)









IV. Summary of the outcome of the breakout sessions with a view to the 2016 priority themes and the Assembly

Rob Peters summarized the outcome of the meeting and thanked the participants for their valuable input. The meeting identified 6 potential new Focus Group themes, four workshop themes and one seminar theme for the coming years.

Potential focus groups

- · Sustainable wood mobilisation
- · Climate change adaptation
- Optimising ecosystem services (focus group agroforestry)
- Soil/water/irrigation (focus group comparison advisory systems)
- Livestock
- Wine diseases
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Potential workshops

- Food cluster/ urban food policies
- Multiple use of forests
- Sustainability indicators: tools for farmers
- · Agriculture & health

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Potential seminar

• ICT/ new business models for precision farming, moving towards a digital community

The Subgroup's input will inform the discussion of the Assembly on the strategic priorities for Rural Networks in 2016.

The detailed agenda of the meeting and all presentations can be found on the EIP-AGRI website

The next meeting of the Subgroup on Innovation will take place on 18 February 2016 in Brussels.















ANNEX I: SGI meeting 17 November 2015 - Results of break-out group discussions

SGI meeting 17 November 2015 - Results of break-out group discussions

Session 1 "Shaping the priority themes for 2016":

Break-out group: Biodiversity, ecosystem services, soil functionality and sustainable water management

- How to evaluate and describe the eco-system service on your farm for marketing purposes?
 Could indicators help?
- How to measure the results of new agri-environmental farming practices
- Can a correlation be found between eco-system services and farm profitability? (Follow-up by a workshop or seminar)
- Functional biodiversity for pest/disease control (e.g. perennial systems)
- How can we encourage the farmers to shift from monoculture to a more diverse range of crops on the farm?
- Agro-forestry and its role in supporting biodiversity, soil functionality and eco-systems.
- Agro-forestry and Eco-intensification
- Soil moisture
- Slowing down water flows, with input from smart drainage
- Compare performance of irrigation systems across the EU with the help of the advisory systems
- Nutrients run off and the link with quality of drinking water
- How can we up-scale from localized "on farm" positive effects to wide application, obtaining real positive impacts on large scale
- Carbon stocking and conservation agriculture
- Soil quality and recycling
- Enable tourism and recreation activities
- Raise awareness about the importance of producing food, energy, etc and the knowledge how to do it
- Natural grasslands management
- Clean air
- Green landscapes
- Education to support adoption of sustainable production lifelong learning
- Home gardening
- Soil quality indicators
- "Sustainable farms" an agreed points based system for sustainable production
- Value of buffer strips, hedges and non-treated areas along water courses, for biodiversity
- IT solutions, best practices, online services.









Break-out group: Forestry

- Maximize forest profits and income
- Multifunctional use of forests: value creation of different forest products to be more visual for forest owners
- Adding value to forest products (and to forest itself)
- Local value chains from multifunctional forestry: bioenergy, residues and wild forest products
- Workshop, seminar, focus group on multifunctional use of forestry (mostly on non-wood): edibles, pharmaceutics, recreation values. "Cascade model" on bio-economy use.
- Price for public goods in forestry sector, with contribution from rural development
- Workshop on the multipurpose management of forests (different services, problems/solutions, value chains, benefits for society, profit maximizing)
- New organization and management systems
- (Focus Group on) Wood mobilization, to include small scale forest owners, to deal with economic harvesting and "right" wood for "right" use, innovative tools, technologies and practical solutions, sustainability issues
- Sustainable mobilization of wood biomass better matching supply and demand
- Sustainable increase of biomass production (wood and non-wood) to deal also with issues of: ownership, new value chains, logistics and co-forestry
- Mobilization of forest biomass
- (Focus Group idea) How to improve the sustainable wood supply and management, to
 include issues related to: mobilization, market needs, bio-economy, European economy,
 small farmers and foresters and cooperation
- Anticipating the effects of climate change on forests
- (Focus Group or Network idea) Innovations in forest adaptation to climate change, to look at: species adaptation, market issues, policy framework, existing practices, water management
- (Focus Group idea) How to increase the growth of European forest biomass? Is there enough material? What benefits for climate?

Break-out group: Short food supply chains and rural-urban partnerships

- How can Short food supply chains be enough efficient and attractive
- What should be supported under short food supply chains? What is the potential of Measure 16 of RDP's? Farm investments, logistics platforms, processing equipment, overhead costs of new sale points, etc
- Logistics of short food supply chains how to do it best taking into account costs and hygiene rules
- What is the consumer behavior?
- What funding can be accessed for innovative food processing (via EIP-AGRI)?
- Connect short food supply chains with the "Milano Food Pact" aiming at: food security, health and well-being, green clean air, bio-based circular supply, green energy
- Horizontal integration and cooperation small scale producers face problems due to economies of scale, need to break down cultural barriers, need farmers to join in and facilitator to mobilize and coordinate









- Understand limitations of short supply chains valorization of production and efficiency
- Understand benefits for farmers and industry
- Development of local short supply chain cluster: multi-actor local supply chain, raw materials
 produced locally, everything goes to a local central processing and packaging unit with same
 brand
- How to deal with public procurement and funding issues?
- Development of business models: single or group of entrepreneurs? legal aspects?
- Smart logistics: new logistics and transport platforms
- System approach: logistics, transportation, internet, products
- Structure of the processing industry (build on the work of the previous focus group): downscaling, cluster formation
- How to be more competitive, improve labor organization for farmers and address environmental issues such as fuel use
- Access to markets like hospitals, schools, restaurants
- Relation between consumer and farmer: quality identification, adapt production to demand
- How to increase communication between urban and rural areas, how to communicate with potential customers and build relationships?
- How to reduce food waste?
- Produce examples of successful rural-urban partnerships
- (Seminar or workshop idea) Bring cities into the game and provide them with good examples of working short supply chains
- (Thematic Network idea) Reunite in a thematic network all OG's working on short supply chains and facilitate exchange at EU level
- Produce handbook with good practices and open thematic webpage at the EIP-AGRI website









Interactive session II "Exploring other themes for 2016"

Break-out group: Focus on sectors: wine, olives, etc.

- Irrigation in fruit and vegetables in the Mediterranean area
- Added value of industrial and energy crops, focus on bio-plastics, bio-economy and biorefinery, cosmetics
- New crops, not commonly cultivated share experiences on yields improving, look also at algae, insects, etc.
- Wine production: benchmarking, genetic resources, ecological approaches
- IPM in vineyards: wood diseases (ESCA, BDA and 'Flavescence dorée') are responsible for 4% of losses in the EU, address the lack of research in this field
- Organic: fruits and viticulture, reduction of copper use, use of functional biodiversity
- New diseases in wood crops: vineyards, olive trees, fruit trees, etc
- Optimizing grass use for livestock, benchmarking
- How to improve the value and quality of animal production: genetic resources, breeding, feeding, marketing
- Efficient and robust animals: integrated approach which looks at health, welfare, feed, breed, genetics, etc.
- Prevention, control and eradication of farm animal infectious diseases
- Milk production: efficiency, added value, value chain, profitability for farmers
- Improving protein and energy autonomy of the animal production sector via innovative solutions
- Positive impact of animal sector in climate change, use of permanent grassland, employment in rural areas, social and ecological aspects
- Vertical agriculture, vertical greenhouse technologies, hydroponics, vertical closed systems for green fodder

Break-out group: Food quality

- What are the consumer needs on food quality?
- Increase tolerance of food crops perceived to have lower qualitydue to aestethical considerations (size and shape)
- Need to combine food quality aspects with something novel: waste, circular economy, smart packaging etc in order to add value to the subject
- Open-up discussion about expiration dates and health issues: is it really risky or just less tasty?
- Urban farming
- Work more on origins, ways of production, bringing farmers closer to consumers
- What is quality? Who defines it?
- Prices, get a fair price for quality products
- Functional food: health, aging, diet requirements
- How to involve on-line/virtual or real platforms in quality control instead of regulation and labels?
- Innovative, smart and renewable packages in improving food quality, packages in short supply chains, packages and logistics
- Innovative labeling, technical smart approach to labeling and packaging









Break-out group: Precision farming

- Implement a "best practices platform"
- Improve advisory systems practice models
- How to integrate drones and satellite technology in the farm use, do we get all functionalities from these new technologies in the farming sector today?
- How to turn data into information? User friendliness and better integration
- Data issues: accessibility, cooperation of smaller farms, standardization, processing tools, ownership (public/private), comparison between MS
- Business models related to data
- Interconnectivity and no "switch off system"
- Precision farming systems are needed for welfare, quality assessment, livestock sector, etc
- Precision farming to reduce cost and increase benefits
- Traceability and transparency of data
- Precision farming could be made more attractive and more targeted in what is beneficial for farms – create building blocks around specific benefits
- How can we attract more farmers in the field of precision farming?

Break-out group: Possible new themes (focus groups and workshop ideas)

- Wild food and pharmaceutical products
- Forestry multifunctional focus
- Big carnivores and animal husbandry
- Mountain and remote areas
- Tackle different types of predators/wild animals who are damaging crops
- Agroforestry: contribution to soil quality, fertilization, water resources and diversification
- Biodiversity: old domestic animal breeds, genetic resources
- Benchmarking: which tools to use, traceability, food quality, production
- How to find new partners for farmers and foresters?
- Mentorship between countries regarding implementation of EIP-AGRI
- Cuisine innovation and trends
- Examples of unconventional combinations
- Link farmers with consumers, let farmers know about consumers trends
- Give reputation to the farming sector and attract the next generation farmers and the labor force needed.
- Smart sustainable and competitive rural areas
- Intellectual property: awareness of the possibility to protect an idea, innovation, approach, special product.
- Rural-urban linkages
- Partnership contracts between cities and rural areas
- Good practices on short supply chains, sustainable development of rural areas, ICT economy, win-win partnerships
- Social farming: "green care", social innovations
- Community supported agriculture, reduce risks for farmers, food for community
- Education: integrated environment, agriculture and forestry









- Contribution of small farms to local economy
- · Agriculture and forests for human health
- Horticulture products to: improve health, prevent disease, cure, prevent obesity, Alzheimer, diabetics, etc.
- Medical crops
- Aromatics and medicinal plants production: technology of production processing to add value
- Non-food value adding products
- Pests who are spreading because of globalization and climate change
- Adaptation to climate change: more or less rain, warmer weather, more and new pests
- Urban agriculture
- (Vertical) Closed system farming: social and environmental impact
- Novel foods and feeds (algae, insects)
- Insect growing (micro livestock)
- Harvest losses: side products
- Crop residues: fruit sector (juice and alcohol production, "wine" production, vegetation resulting from yearly cuts, other)
- Use of the resulting residues for fertilizers, animal feed, food supplement
- Optimized food consumption: food waste minimized
- Place of animal agriculture in the rural circular economy
- Biomass supply chains





