Focus Group *Organic Farming*

Minutes

Second meeting, 4th -5th February 2014, Barcelona SPAIN

Summary

Following the first meeting in Newbury, UK in September 2013, the experts from the EIP-AGRI Focus Group on Organic Farming met for the second time in Barcelona from 4th to 5th February 2014. A full day of participatory activities to develop the content of the Focus Group was followed by a half-day's further work including a field visit to the *Consorci de Gallecs*, an area of farmland converted to organic farming in a rural-urban context and a cooperative of farmers[1].

You can find the list of participants at this Focus Group meeting in Attachment 1 on page 10.

As from its mandate, the Focus Group dealt with the challenge of "how to optimise yields in organic arable farming" (i.e. reasons for which some organic farmers in comparable conditions have lower yields than others). The discussions were framed by the second discussion paper, which had been circulated to the group's members in advance[2]. The group had also produced between the meetings several documents which served to prepare the participatory activities that took place in Barcelona. These activities were structured in 3 blocks: a) check and complete the proposals for action table, based on the mini-papers; b) a 'speed-dating'-style exercise to explain proposals for actions previously described by the members and assess their level of interest and transferability; c) with famers from the *Consorci de Gallecs*, a role game was carried out representing a potential operational group to develop ways of tackling their main problems.

The meeting outputs were: a) a coherent collection of proposals for action guided by the mini-papers and enriched by the group activity; b) a list of practical solutions (Attachment 2 on page 11) and c) concrete suggestions for the setting-up of operational groups.

Main recommendations of the group work, besides the lists of proposals for actions and examples of practical solutions already mentioned are:

- in any project or activity give sufficient relevance and space to knowledge sharing or co-generation of knowledge with the involvement of farmers, advisers and researchers focussing on a real concrete problem, all reluctant actors will be convinced to participate
- make the interaction of different actors possible, which is not always easy, through the work of facilitators and local development advisers
- even if focussing on a specific problem, a system approach must be maintained in proposing and assessing solutions

The group will spend the coming weeks preparing the final deliverable of the Focus Group as well as a dissemination plan to communicate the results in an effective way. The experts will not meet again to further discuss this topic, but they will continue to pool ideas through an e-forum on the new EIP-AGRI website, the experts have all expressed an interest to do so. They have also demonstrated the

[1] http://www.espairuralgallecs.cat/cat/espai.php
[2] http://ec.europa.eu/agriculture/eip/focus-groups/organic-farming/index_en.htm

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will to be active in the dissemination of the FG outcomes in their home countries and in any environment where their knowledge and experience can be useful

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Minutes

The meeting

Introduction

The first day began with a presentation by the EIP-Service Point reminding the group of the Focus Group's objectives and presenting the activities of the meeting. The key expert also did a recap on what the group had worked on so far, the outputs created and the necessary further outputs.

Vocabulary

During this opening session, the group agreed upon the following vocabulary:

- **Summary paper**: the table summarising the mini-papers in the second discussion paper.
- **Proposals for action**: the table above included draft proposals, which were further developed into coherent proposals per type of action
- **Practical cases**: the examples of existing innovative actions which can provide solutions for specific problems. These were sent in by the experts before the meeting, worked on during the meeting, and written up into a fuller presentation after the meeting.

Aims of the Focus Group

The participants were also reminded of the aims of this Focus Group. These aims are to produce proposals and recommendations for operational groups that will soon be established under the Rural Development policy. By doing that, the group can also produce recommendations for other policy development and for practical implementation: research agenda (H2020), training topics and methodology (Erasmus +), local developments (RDP, Life 2020)... Over the two days, the aim is to reach a good level of detail in the descriptions of proposals for action. Considering that in EU farming systems and conditions vary more than we can imagine, the goal is not to produce 1 solution, but a range of solutions that can be locally adapted and combined in order to reach a valuable impact on the local organic sector.

The link with other on-going activities on the topic of research and innovation in organic farming (i.e. TP organics research agenda review) was also debated and clarified. Several members of the FG are linked to these other initiatives and a complete flow of information is important, but the FG was clear that it is primarily committed to producing proposals for innovation (in terms of methodology and topics) and not research needs or agendas, even if that is a valuable side-product that will be communicated and disseminated.

The meeting was organised in 3 blocks of activities:

- activity 1: completeness and correctness check of the **proposals for action**
- activity 2: presentation of **practical cases** through a 'speed dating'-style exercise in 2 groups of FG members
- activity 3: implementation of an **operational group methodology** to the *Consorci de Gallecs* case in a simulation exercise.

Activity 1: Proposals for action

In the summary paper, the proposals for action are grouped per type of action and the problems specifically addressed are combined. The list of proposals for action to close the gap between different yields in organic arable production represent a summary of the proposals reported in the mini papers,

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but the aim was to develop it further during this activity. The experts were asked to select the most important and most urgent actions which can be implemented EU wide or at national/regional/scale and to complete their description with all details needed to produce guidelines for their implementation.

To reach this goal during the second meeting, FG members, after running the correctness and completeness check of the table, were requested to give answers to some general questions, valid for all proposals for action:

- how would you rank for relevance the proposals?
- is this ranking the same all over EU or does it change with the Regions/areas?
- which is, for each action, the geographic scale of relevance or are there specific areas involved (i.e. Alpine area, Central EU, Mediterranean...)?
- is there the need to further detail the actors involved?
- How could this proposal be disseminated?
- are there links between actions that can be established?

In small groups, made of relevant experts according to the theme they were to work on, the Focus Group answered these questions. Some of the actions were even grouped together to make their output more coherent.

The table of proposals for action was completed and corrected as follows (see table in Attachment 3 page 13)

The main recommendations stemming from the exercise are:

a) to maintain a system approach and the capacity to combine all specific solutions when proposing innovation to farmers. Also, to give high relevance to the joint creation of knowledge as it will give more reliable results that will be taken up more rapidly if proposed to farmers by other farmers.
b) to consider the need for local implementation/adaptation of techniques which are well known on the scientific side of things, but still not put into practice due to this implementation phase.
c) to consider the need for a range of tools for the dissemination of knowledge including social media, publications etc. but must also include direct farmer to farmer contact and direct exchange.
d) besides innovative technologies and tools there is also the need to increase farmers' craftsmanship.

Activity 2: practical cases

Prior to the meeting, the experts sent in examples of solutions/actions taken to solve one or more of the problems identified during the first meeting and in the mini-papers. These "practical cases" were to be something already completed or something on-going that the experts considered as a good example for the implementation of the EIP, something which could be transferred to a different context or place elsewhere in Europe. Sometimes it was activities the experts had been involved in directly, or something they knew about without being directly involved. The most important aspect was that the practical cases were real, and had been a reality, that they were not just an idea for a solution. Examples of unsuccessful actions were also asked for, as they can be useful provided there is the explanation of the reasons of their failure.

The exercise ran in two groups of ten where the experts presented the practical cases in a "speed-dating" style. In pairs, they had 5 minutes to "sell" the case they brought to the meeting; the expert opposite could ask questions. In each round (there were 2) each of the experts heard 5 cases, and they got together to select the most interesting and useful one, considering not only its topic or the results obtained, but also its potential to be scaled up and/or replicated in other areas.

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The aim of the activity was for as many of the experts to hear about as many of the cases as possible, so that they could ask direct questions about them and make use of the examples for formulating proposals for OG structuring.

The complete list of cases (not only the ones presented in the exercise) is in Attachment 2 (page 11) and all the descriptions will be downloadable as part of the FG final deliverable.

There was a common evaluation that all the cases have aspects to be considered and selecting the "best" ones was difficult. The experts did however settle on 4 cases which seemed best to fit to the following selection criteria:

- innovation level
- assessment of results after a certain period
- problem solving orientation
- multi-actor approach
- potential for future and follow-up.

These **four "best" cases and their main features are detailed below**:

Dutch case- presented by Wijnand Sukkel

In 1998 in The Netherlands, some regional groups were established in order to define what organic farming was and how it should be implemented. This innovation in The Netherlands was supported through the organisation of regional groups guided by an adviser and a researcher. They worked on various farm issues to learn about management of organic farming in a real knowledge sharing environment. They identified the main obstacles for organic farmers and established 8 groups each working on different topics. Each group was formed of 5-7 farmers, researchers and other actors (machine builders sectors, ICT, other etc.).

The activity required intensive farm registration, data was registered and the results were tested for improvement. Half of these groups failed, but some were successful and continue today.

These groups showed that it is important to build trusts inside the group when there is trust there is more room for sharing knowledge /ideas/inventions.

Dutch case - Chris Koopmans

Farmer networks were working from 2008 to 2012, guided by the organic association. They were focused on different sectors within organic farming (vegetables, dairy, greenhouse, sheep and poultry….), and their aim was to bridge the gap between research and practice.

Farmers were in groups with advisers and researchers to develop specific ideas, and many farmers would visit other farms and collect knowledge.

It was necessary to have an effective coordinator leading the groups (and so requiring funding).

For some sectors it worked easily, others it took some years to convince the farmers that it was important to do this. However, two of the groups continued and now pay from their pocket! Some run with other funding and some others finished.

German case – Karl Kempkens

Since 1993, participatory innovation groups were established with the basic idea of testing one solution for a problem on different types of farms (potato blight for example). The process is that the researchers discuss with farmers the source of the problem; they suggest solutions or needs for research. Sometimes, the research is carried out directly on the farms, other testing takes place on research farms.

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Researchers collect and analyse the data, they then come together with the farmers to see how the solution has been successful in the different contexts. After that, usually 80-90% of the farmers apply the solution. They then invite other farmers to see the results.

Danish case- Inge Bertelsen

High Crop (a very big- 2 million €- Danish programme for organic research and development).

Farmers, researchers and advisers worked together on this project on closing the yield gap for arable crops. It took steps from a previous project and lasted 4 years. Important knowledge from researchers was brought to farmers and farmers told the researchers why they were not applying the knowledge (economic/practical reasons).

Farmers and researchers visited farms and experimental farms together. They educated the advisers, inviting them to research stations to hold discussions about the on-going research (they did not have to wait for the final results to have any information).

They also ran research in commercial farms to assess if the proposed innovation was possible in practice and this is part of knowledge transfer.

Two decision tools were also developed. The tools are predictive instruments which can tell the farmer what will happen if you choose one or another crop rotation, etc. and also a picture tool was developed, to allow the farmers choose which photo corresponds most to their farm today and what represents the vision of the future farm.

French case- Stephane Bellon

The case was about the experience of 150 Roquefort farmers engaged in improving alfafa quality and production, with the help of researchers and veterinarians. Working together they started participatory plant breeding considering sainfoin diversity and taking into account its place into the crop rotation and the impact on animal health. It was tested in several uses: grazing, hay. The group has worked on the organisation of community seed banks to manage plant breeding and seed conservation. Last summer it served as a case study for the summer school on agro-ecology and that was the opportunity for economic and agronomic evaluation.

It is an example of how starting from the concrete problem of improving one crop it is possible to move to the improvement of the whole farming system.

Activity 3: operational group methodology

The aim of this final activity was to put the experts into the mind-set of setting up an operational group in order to solve a concrete problem. The manager and 3 farmers from the *Consorci de Gallecs* (see box) agreed to participate in this activity and supply the basic knowledge for the OG simulation.

The experts in the Focus Group are potential members of operational groups (OG), and they will also act as innovation brokers. The scope of the exercise was to identify difficulties and key aspects of the establishment

The Rural Area of Gallecs

The conversion of the rural area of GALLECS to organic farming.

Gallecs is an area of organic farmland which has 20 pilot fields (45,8 ha) and is situated 25km from the centre of Barcelona. The project aims to monitor the conversion to organic farming and to convert Gallecs to the largest area of dryland arable crops devoted to organic farming in Catalonia (Spain).

It intends to develop a new agriculture management model that guarantees:

- Traditional farming knowledge
- Food safety and quality
- Economically viable
- Soil conversion
- Biodiversity conversion
- Environmentally sound

Situated in a rural-urban context, it plays a fundamental role in the land planning, it fosters a landscape with important environmental and ecological values while humanising he surrounding of the city and acting as "green lung". It also offers the opportunity to implement an agro-ecological management model at regional level as well as a space for leisure and education.

The Consorci de Gallecs sells its raw products, but also transforms some (we visited the farm shop and jam kitchen), is involved in participative research and also offers employment to young people.

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and running of OG and to think about the transferability of the solutions found to other contexts.

The exercise was to present realistic scenarios of how an OG can work and based on that to give guidance/examples to the national/regional authorities on how to implement it.

Starting in a plenary session, the farmers presented the particular problems they have of their farmland and the experts asked questions to get more in-depth information. The experts then split into 3 groups, each with an identified team captain and one Gallecs farmer went with each of them and they began a role-play activity. Each of the groups focused on a particular problem or one aspect of the establishment of a potential OG for the Gallecs. The idea was for each of the experts to think from the point of view of a particular actor their group may need to solve a problem. Some groups "brought in" local political figures, small local businesses... The next day the results were presented to the Gallecs farmers and to the rest of the group. The presentations included a plan of action towards reaching a solution to the problem, a possible time-plan, a detailed list of actors involved, suggestions for testing needed, ideas of budget etc. here **below are the summaries of the 3 presentations:**

Group 1, led by Inge

The proposal is to establish 3 OG: 1) on technical on-farm issues such as weeds and crop management and to find paths to improve the agronomic performance, 2) Fertilisation, 3) Marketing of the products. The results should be valid not only to the Consorti but for all neighbouring farms. Activities foreseen: registration of economic and agronomic data; demonstration activity.

Technical innovation to be tested: new machines, catch-crops, selection of more adapted species/varieties.

- Fertilisation: dialogue with local authorities to improve quality of urban , possibility for use as compost.
- Development of marketing of the products, involving more farmers.

Key elements: to work in small and topic-specific groups in order to have active members who are fully engaged and willing to participate.

Group 2, led by Marco

The group focused on globality of the system, considering that all the problems are linked together: weed management, water management, choice of crop/varieties and soil fertility.

Therefore, it worked more on the methodology and the definition of time frame to deal with the complexity of the system. It foresaw a first period supported by public funding to establish the group and define the work plan and a second period with economic support by private enterprises (farms, industries etc.).

The steps of the process are:

1) survey of similar situations and useful solutions (2 months, involvement of advisers)
2) share the knowledge obtained by the survey (0,5 months)
3) detailed analysis and description of the farming systems (area, food chain, limits of action, economic constrains, potential of agrosilvopastoral systems...) (1 month)
4) brain storming on all possible solution paths. (1 month)
5) planning of the actions considering some short term and long term activities. (6 months)
6) implementation and continuous assessment of results, dialogue among actors. It should last 6-8 years.

Key elements: rapid starting up but with fine-tuned proposals; presence of a young facilitator, preferably from a farming family; sharing of costs between private and public.

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Group 3, led by Monica

They concentrated on the weed problem. The project proposed is named "integrated project on peri-urban organic agriculture" to last 5 years. The funding suggested is 100% public funding as farmers already contribute with land, time etc. The actors involved could be: farmers, advisers (as facilitators and disseminators), farmers associations, researchers, machinery companies, consumers associations.

The different steps of the project are:

1) survey and analysis of farming system, evaluation of short term solutions (rotary hoe, other machinery). Actions: on-farm testing and demonstration. Communication to all local community. SWOT analysis.
2) implementation
3) assessment and feed-back to implementation
4) key elements: economic assessment; facilitators.

Overall comments on the exercise

The exercise highlighted 3 different ways of approaching the OG concept and also of attitudes to solve problems. It shows that there is no one way to implement OG activity but in order to be effective, the methodology and composition of the group must be adapted to the agronomic, but even more to the social, environment, in other words to the project itself.

In all cases the role of facilitators is considered of high relevance as well as the need to give rapid answers to farmers, even if they are interim or partial results, they need to be shared. This provides useful feedback on how to go further, but it also builds trust and commitment by all actors which is even more important. Other key elements are the economic assessment of the proposed innovations and the long term planning (at least 5 years but more if possible).

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Drawing conclusions, but not coming to an end

The Focus Group on Organic Farming will not be meeting again, the DG AGRI, the EIP-Service Point and the experts themselves agree that the discussions on this particular subject have come to an end. They feel they can now produce a final report so that farmers and the farming world can benefit from its conclusions. However, this does not mean the discussions end here. The experts are creating a dissemination plan for the communication of the outputs of the Focus Group, this will include presentations of the results by one or several of the group members at specific, relevant events. The experts will have their own space on the new EIP-AGRI website where they will have a forum to be able to continue to share ideas and discuss the subject. The experts will help spread the results of the Focus Group throughout their networks and communication outlets, and they may even be involved in operational groups (or in helping set them up) on the proposals recommended in the final report.

Homework

- preparation of final report, by 14/02 comments on the structure
- proposals for dissemination: ideas to be sent by 21/02
- New mini-papers
- EIP-AGRI Team will elaborate a dissemination plan and in March comments are welcome
- re-elaboration of the practical cases in a more narrative way, in a new template that will be circulated
- minutes check
- comments on the final paper (to be circulated in March).

Additional remarks

Wjinands Sukkel presented 3 issues to the group:

1) to review the mini-papers including comments (comments by 28/02, 7/03 final version by authors)
2) to change the horizontal issue identified in the first meeting as "climate change" into a broader and comprehensive "resilient systems"
3) to include the problem of how to match the search for differences (in farming systems, in biodiversity etc.) that are strategic for organic farming with the trend towards homologation driven by the market and by policy.

The group agrees on all 3.

Stephan Bellon proposed to structure the OG working process considering 3 levels of proposals. In all cases he estimated a first phase where a clear definition of the problem to be tackled is compiled as essential.

The 3 levels for proposals are:

1) co-design, meaning for example to review crop rotation not only at field level but at farm and landscape level and relate it to storage, processing and use. For doing so there is the need to open up the OG to non-agricultural actors;

2) Interaction among areas with similar conditions

3) specific problems (with more agricultural actors involved) and divided per topic. Development of decision tools.

The consequences of such a process are to make use of internal diversity, to exchange with similar situations and increase the potentials for scaling up.

Comments/questions on the proposal:

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- how to establish exchange among groups? It would be very beneficial to establish a network of OG.
- How to define the scale of action of OG?
- Who can be concerned on the OG outcome outside the group itself?

A staff change

A staff change should be noted, Christiane Kirketerp will replace Lukas Visek from the DG AGRI as FG supervisor. She will now be the DG AGRI contact point and join the task managers in encouraging the on-going discussions by the experts.

Photo : U. Schmutz

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Attachment 1: Participants

EXPERTS:

Johann Bachinger (Scientist)
Stéphane Bellon (Scientist)
Inger Bertelson (Advisory services)
Miguel Brito (Scientist)
Véronique Chable (Scientist)
Monica Coletta (Adviser)
Karl Kempkens (Adviser)
Chris Koopmans (Scientist)
Marco Locatelli (Farmer)
Luisa Manici (Researcher)
Benoit Nezet (Adviser)
Nadia Riguccini (Farmer and agronomist)
Joan Romanyà (Scientist)
F. Xavier Sans Serra (Scientist)
Ulrich Schmutz (Scientist)*
Jozef Tyburski (Researcher, also a farmer)
Wijnand Sukkel (Scientist)
Maria Wivstad (Scientist)

TASK MANAGERS:

Lukas Visek (DG AGRI)
Christiane Kirketerp (DG AGRI)
Cristina Micheloni (EIP Service point)
Pascal Dagron (EIP Service point)
Sarah Beigel (EIP Service point)

GUESTS:

Members of the Consorci des Gallecs

EXCUSED:

FG expert- Aira Sevon (Farmer)
Alfred Grand (Farmer, involved in research)

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Attachment 2: List of practical cases (first drafts)

Stephane Bellon	Roquefort farmers engaged in improving alfafa quality and production
Aira Sevon 1	Filming project, step by step how the pests and diseases can be avoided…. Short form for youtube, for everybody to use it.
Aira Sevon 2	Application of permaculture and other ecological design methods (Holistic management, Keyline) to an organic farm
Aira Sevon 3	Pulp- and paper industry produces megatonnes of by-products which are valuable soil improvement materials in agriculture. In Finland has methods been developed to integrate these often nutrient-poor materials to crop rotation
Alfred Grand 1	A research program for green manuring systems on organic farms in Lower Austria, which are under the condition of precipitation less then 530 mm
Alfred Grand 2	The soil practitioner training is an Austrian training program for organic farmers, consulters, teachers and multipliers
Benoit Nezet	Tillage optimisation in organic farming in France, Research programme
Chris Koopmans	Organic farmers' networks, The exchange of knowledge and experience is essential for linking theory and practice.
F. Xavier Sans	Consortium of the Rural area of Gallecs
Inger Bertelson 1	Making an index that makes it possible to asses a varieties ability to suppress weed and tolerate the presence of weed
Inger Bertelson 2	Project HighCrop the aim is to improve yield and stability in organic plant production
Joan Romanya 1	Organic farming in cereal fields of central Catalonia Determination of the changes occurred in soils after at least a decade of organic
Joan Romanya 2	Esporus -Center of conservation of local crop varieties
Joan Romanya 3	Association L'ERA Center for supporting organic farming practices. They organize training courses, technical meetings for local farmers, publish a regular magazine
Johann Bachinger 1	BERAS Implementation: www.beras.eu. Protection of the Baltic Sea through a systemic shift to Ecological Recycling Agriculture (ERA) in connection with the whole food chain from farmer to consumer
Johann Bachinger 2	INKA BB - the Innovation Network of Climate Change Adaptation Brandenburg Berlin, http://www.inka-bb.de/
Karl Kempkens	Organic Pilot Farms in North Rhine-Westphalia
Luisa Manici 1	The action was performed within a project on the use of cereals as cover crops and other agronomic options to increase biodiversity and soil suppressiveness in organic apple orchards.
Luisa Manici 2	The action aims at developing innovative management options for organic fruit tree crops, Each partner is involved with a variable rate in more work packages, bringing different expertise and skills
Marco Locatelli	Protection and development of genetic heritage for conservation of rural biodiversity
Maria Wivstad	A working group, initially unfunded, sharing experiences and knowledge, was formed by diff. stakeholders. The overall aim was to improve weed and nutrient management on stockless organic farms in the southern plains of Sweden
Miguel Brito	Research and demonstration project,Composting processes to minimize nitrogen losses
Jozef Tyburski 1	Introduction of a new pulse crop - soybean in Poland,

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Jozef Tyburski 2	Introduction of grain maize growing in organic farms in northern Poland
Ulrich Schmutz 1	Participatory investigation of the management of weeds in organic production systems
Ulrich Schmutz 2	The Farm Carbon Calculator
Véronique Chable	On farm research and participatory breeding of wheat for organic and low input agricultures in France
Wijnand Sukkel 1	Project called BIOM with a combination of on farm research and knowledge circulation, participatory learning etc.
Wijnand Sukkel 2	Farmers innovation groups, Based on an inventory of threshold for the development of organic farming, innovation groups were created.

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Attachment 3: Proposals for action

Type of action	Topic	Thematic area concerned	Goals	Actors involved	Scale/level of implementation	Details	Answers to Specific Questions
1. Regional and inter-regional operational groups	**1.1 farming systems co-design**	nutrient management; soil fertility management; weed management; climate change	Increase total biomass production and productivity as a consequence, enhance microbial soil activity and nutrients availability, decrease weed pressure and increase resilience to climate change	Local experimental stations, advisory, farmers, local authorities, business (processors, traders, transport agency)	EU relevance but local/regional implementation	It should include new crops and new crops combinations (relevance of legumes), mixed-farming, agroforestry elements and they should be supported by software tools and implementation guidelines	Being important to more areas is it to be enhanced to a high priority? It is relevant for all EU areas and farming systems even if it needs to be implemented locally with specific characteristics. As a consequence it should be considered of highest priority. It is the key aspect for the future of organic farming that should pass through despecialization and use crop rotation as key for environmental problem solving. How to disseminate solutions? Case studies, demonstration on farm, pilot farms, exchange on principles
	1.2 Information and decision support systems	nutrient management; weed management, pest and disease management	To make use of available technological tools and knowledge and develop them further for site specific implementation	Technology providers, advisory, farmers, researchers	EU relevance but local/regional implementation	All technologies (smartphone apps, web applications...) should be explored	Should it be considered separately or as part of other OG? The actors involved are quite specific, does it mean that it should be dealt with separately? A global tool can be developed and later adapted to specific groups, having common basis but regional adaptation.

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							Geographic scale: relevant everywhere and need for adaptation Relevance: medium relevance, highest priority to craftsmanship, knowledge sharing and management. User-friendliness is highly relevant
	1.3 Increase of soil microbial activity and biodiversity (including N-fixing) by farming techniques	soil fertility management;	To enhance soil fertility and nutrients availability at low costs	Local experimental stations, advisory, farmers, public authorities, recycling industries (for quality organic matter) and researchers (new technology to adapt nutrients supply with crop demands)	EU relevance but local/regional implementation	In can be included in 1.1 but for certain areas it can be dealt with as specific topic. It is also linked to 1.4 and 1.7	Where (geographically and farming systems) is it more urgent/important? It is generally important but higher priority on Mediterranean basin where organic matter is low and temperatures are high, there is less livestock. Also area with high risk of leaching should be considered as priority as well as stockless farms and horticulture. Ranking for importance: 1.3 and 2.3 highest relevance suggestion for dissemination: demonstration activities and farm days; meetings for advisers, researchers, practitioners, networking
	1.4 Composting techniques fine-tuning	soil fertility management;	To enhance soil fertility and nutrients availability at low costs and recycle waste from agriculture, food industries and other	Waste managers, local decision makers, machinery producers, advisory, farmers,	EU relevance but trans-regional implementation	It requires specific implementation techniques based on locally available materials,	Are there areas where it is already consolidated? In the compost sector there are consolidated technologies for medium quality composting Geographic scale: relevant everywhere, especially on

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			source (multifunctionality of agriculture)	researchers and public authorities		amounts and machinery	degraded soils, specialized high value crops and extensive production but depends on local availability of materials. Link to 1.3 that has high priority. Combine the 2.
	1.5 Structuring of joint purchase of machines (machine rings)	Weed management, soil fertility management, pest and disease management	To supply modern machinery to small or non specialized farms at affordable costs	Farmers, local decision makers	Local implementation	Good examples under development, contractual constrains, social innovation	Is it a too specific issue for OG? It is not new in many countries and too specific for a OG. The experience of some countries can serve the others. High relevance where it is not in practice. Already implemented in many places.
	1.6 Selection of robust varieties	Variety choice; weed management; pest and disease pressure management	To make available to each farmer the genetic materials most adapted to his/her farming system and market, so decreasing production costs and enhancing quality and profitability	Researchers, farmers, breeders, advisory, consumers	EU relevance but local/regional implementation	Good example of system approach, running experiences in France, Austria and The Netherlands. Special focus on leguminous crops; heterogeneous materials; on-farm breeding	Geographic relevance: EU wide, global structure but local implementations Links to other actions? To 1.1 via common on-farm experiments, not only demonstration and common evaluation methods. As it is key for several topics should it gain high priority? It is part of the solution for management but quality should be the first issue, adapting management consequently. Relevance: see 8 how to disseminate: see 7
	1.7 Innovative tillage	Climate change	To maintain production levels and protect soil	Researchers, farmers, machinery	EU relevance but macro-regional	It can be part of 1.1	Is it really a topic for OG? Yes

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	techniques		fertility under climatic changes	producers, advisory	implementation		Isn't it part of 1.1? it is closely linked relevance: medium how to disseminate: publish evaluation and describe the effects.
2. Demonstration activity	**2.1 Establishment of a network of private farms for testing and demonstration**	All topics, including economic assessment and market studies	To make efficient and speed up circulation of information based on "reliable" practical experiences from "peers"	Farmers, advisory, local authorities	EU implementation or at least National implementations coordinated at EU level	It can be the demonstration tool for all proposal elaborated by OGs	How to build up the network? Who are the main actors/decisors? Private or public? How to coordinate resources in different regions and MS? Link to 1.1
	2.2 farming systems co-design	nutrient management; soil fertility management; weed management; climate change	To give practical guidance on how to implement locally the newly developed systems	Farmers, advisory, local experimental stations,	Local implementation coordinated at macro-regional level	It should be an outcome of 1.1	After 1.1 or be part of it? Can it be done without 1.1?
	2.3 Increase of soil microbial activity (including N-fixing) by farming techniques	nutrients management	To give guidance on practical and local level	Farmers, advisory, local experimental stations	Local implementation coordinated at macro-regional level	It should be an outcome of 1.3	Could it be done without 1.3? are both actions needed? See 1.3
	2.4 Composting	nutrient management;	To give guidance on practical and local	Farmers, advisory, local	Local implementation	It should be an outcome of 1.4	Could it be done without 1.4? are both actions needed?

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	techniques fine-tuning	soil fertility management;	level	experimental stations	coordinated at macro-regional level		See 1.3
	2.5 use and fine-tuning of new machines	soil fertility management, weed management	To give guidance on practical and local level	Farmers, advisory, local experimental stations	Local implementation coordinated at macro-regional level	Equipped with precision tools, at affordable prices. It should be combined with 1.5	Could it be done without 1.5? are both actions needed? Too specific
	2.6 Development of decision support systems (including provisional systems)	weed management; pest and disease management	To give guidance on practical and local level on specific problems	Farmers, advisory, local experimental stations	Local implementation coordinated at macro-regional level	It should be an outcome of 1.2	Could it be done without 1.2? are both actions needed?
	2.7 Cover crops and companion planting	Soil fertility management, nutrients management, weed management, pest and disease management, climate change	To adapt available knowledge at local needs and facilitate introduction of unsual practices	Farmers, advisory, local experimental stations, breeders, researchers, processors	Local implementation coordinated at macro-regional level	It can be part of 1.1 but also a specific aspect to be developed autonomously	In public facilities or in 2.1 systems? Area of relevance: all EU link to 1.1 high relevance everywhere how to disseminate: technical leaflets, decision trees, invilvement of seed companies
	2.8 Selection of robust varieties	Variety choice; weed management; pest and disease	To develop local systems of on-farm breeding and share the knowledge needed to identify	Farmers, advisory, local experimental stations, breeders	Local implementation	It should be an outcome of 1.6 but local implementations are essential	Could it be done without 1.6? are both actions needed?

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		pressure management	and assess appropriate varieties				
	2.9 Innovative tillage techniques	Climate change	Facilitate rapid uptake of non-usual techniques	Farmers, advisory, local experimental stations	Local implementation	It should be an outcome of 1.7	Could it be done without 1.7? are both actions needed? Link to 1.7, it is its outcome
	2.10 Introduction of new crops and variety trials	Climate change	Facilitate rapid uptake of non-common crops/variety	Farmers, advisory, local experimental stations	Local implementation	It can be part of 1.1 and 2.2	Is it specifically needed in geographic areas more affected by climate change? Can it be done without 1.1?
3. EIP network	**3.1 Establishment of EU network of knowledge centers**	All topics	Grant rapid and locally tuned use of available knowledge (scientific and practical) and facilitate the exchange of experiences among different areas	Farmers and advisory, researchers, farmers organizations, consumers	Trans-regional implementation coordinated at EU level	It will serve all topics. It is an instrument that can be financed by partly by EU, partly by local authorities, could be a good example of combination of H2020 and RDPs	Who are the decision-makers involved and how to coordinate funding in different regions and Mss? Transregional coordinated at EU level Are of relevance: all EU network of "disclosure farms" one per country/region in commercial farms with limited input of public funds (see minipaper from Marco) how to disseminate: social media
4. Training and knowledge sharing	**4.1 Information and decision support systems**	nutrient management, weed management, health management	To increase appropriate use of the tools by practitioners	Farmers and advisory, researchers, farmers organizations	Local training facilities	To be recommended to EU training and education programs (LLLP) and to local training plans	At which geographic scale? All EU All 4 should be synergic to 1 All 4 is relevant and must be organized as a system Area of relevance. Relevant everywhere but particularly where organic farms are small and dispersed

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							How to disseminate: farm days and sharing between farmers the outcome of technical and economic performance.
	4.2 Tillage optimization	soil fertility management	To increase proper tillage use by practitioners and develop farmers craftmanship	Farmers and advisory	Local training facilities	To be recommended to EU training and education programs (LLLP) and to local training plans	Only for organic? Isn't it a more general issue for all farmers? Combine with 2.9 and 1.7
	4.3 Multifunctional biodiversity and mixed farming	Pest and disease managemnet, weed management	To consolidate the concept practitioners culture and allow innovative implementations	Farmers and advisory but also all production chain actors, researchers who work on-farm	Local training facilities	To be recommended to EU training and education programs (LLLP) and to local training plans	Is research already supplying outcomes to be used in training or is it still to be developed/fine-tuned/contextualised? Some aspects are ready for implementation, others need more research. High priority, very good topic for OG
	4.4 Farm schools, farmers groups and experience exchange	All topics	To facilitate experience exchange and innovative cultural approached to farming	Farmers, advisors, trainers, teachers, schools, consumers	Local training facilities	To be recommended to EU training and education programs (LLLP) and to local training plans	Is there the need to change training structure in some Mss? See 3.1 disclosure farms. Link to 1 To be developed together with education sector but including experience on farm How to disseminate: link to social media and web sites
	4.5 Innovative communication tools	All topics	To facilitate professional updating and rapid information	Farmers, advisors, communication experts,	Trans-regional media and information brokers,	It is a tool for all topics and can be instrumental for the whole	It is not a topic but a tool for 4.1. it should serve 1 How to make it happen? Not so important the tool but the

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	(social media etc)			consumers and buyers groups	contents to be developed locally	implementation of EIP	content, as framers have no time more useful farm visit, direct farmer to farmer exchange and videos **Area: all EU**
5. Local implementation projects	**5.1 Development of new fertilizers**	nutrient management	To make available efficient and cheap fertilizers	Fertilizers producers, farmers	Trans-regional, based on locally available sources of inputs	The cost factor is of utmost importance	Can something be done by public authorities or is it a "simple" business issue?
6. Applied research	**6.1 Innovative machines and tools**	soil fertility management, weed management	To adapt innovative machines to local farming systems	Machinery producers, researchers, farmers, advisor	Local implementation	It should be linked to 1.5	Could it be done without 1.5? are both actions needed?
7. Review of legal framework	**7.1 Selection of heterogeneous materials; development and use of local breeds, on-farm breeding and seed production**	variety choice	To allow the use of most appropriate genetic material	Farmers, breeders, EU, National and local authorities, researchers	EU, national, local	It is a recognized problem on which EU and National governments are focused.	The process is on-going, is there something to be added or just to wait for the process to be completed? Area of relevance: all EU link to 4 high relevance how to disseminate: knowledge sharing between local/regional/EU scale.

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