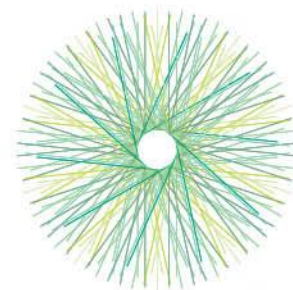


Focus Group Organic Farming

DISCUSSION PAPER 2

Second meeting, Barcelona 4-5/02/2014



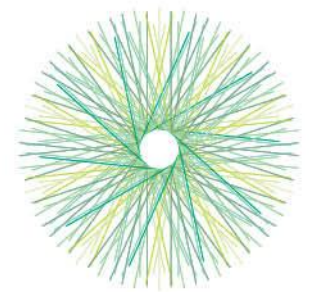
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Discussion paper 2

EIP-AGRI Focus Group on Organic farming optimising arable yields

PREPARED FOR THE SECOND MEETING - BARCELONA, 4-5/02/2014



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Role of this paper

This paper intends to serve as a preparation to the second meeting of the Focus Group (FG). It gathers and sets order to the outcomes of the FG's previous work and prepares the field for the further development of the draft proposals into descriptions of proposals for action enriched by examples and implementation details.

PLEASE NOTE: THIS PAPER CANNOT BE CONSIDERED COMPLETE AND CANNOT BECOME A WORKING TOOL WITHOUT A THOROUGH KNOWLEDGE OF THE FG'S PREVIOUS DOCUMENTS.

1. The first meeting of the FG

The first meeting of the EIP-AGRI Focus Group on organic farming took place in Newbury, UK, on 23-24 September 2013. The topic of this focus group is "how to optimise yields in organic arable farming". The first meeting aimed to identify the main causes of yield gaps (i.e. reasons for which some organic farmers in comparable conditions have lower yields than others). The discussions were framed by the starting paper, which had been circulated to the group members in advance. In agreement with the starting paper, the participating members identified, in an interactive exercise, five main areas of causes of yield gaps, i.e. five main areas of further work for the focus group:

- **Inadequate nutrients supply**
- **Poor soil fertility management**
- **Insufficient weed management**
- **Pest and disease pressure insufficiently managed**
- **Variety choice**

These five areas were further analysed and a more detailed discussion on key elements for each of these areas has been scheduled for the FG's next meeting. For that purpose, each member (or a group of members) was given the task of delivering at least one "mini paper", in which he/she analysed the assigned issue and concentrated on providing a list of existing solutions and on proposing new solutions.

Besides the thematic factors outlined above, some horizontal issues were identified:

- the "**system approach**", that leads to the need to seek solutions through a whole assessment of the farming system and the combination of actions working on more than one thematic area/problem at once;
- the "**knowledge sharing**", meaning that the use and circulation of available knowledge (practical and scientific) offers large space for improvement as by now only a limited part of it is translated into farming practices and choices;
- the need to "**adapt to climate change**", foreseeing how the agriculture environment will be in the close future and to build resilient systems able to cope with it.

The documents related to the first meeting of the FG are available at http://ec.europa.eu/agriculture/eip/focus-groups/organic-farming/index_en.htm

The concept of “**production of organic systems**” was also discussed in depth during the meeting and afterwards and a common understanding leads to the need to consider not only the quantity produced but also two other aspects:

- a) the quality (in health terms and sensorial) of the products obtained and;
- b) the environmental services provided through the production process.

They both affect an organic farm’s performance and its economic sustainability.

2. The second meeting of the FG

2.1 Objectives

During the second meeting, the experts are requested to help in further developing of the proposals drafted in the first phase. The aim is to elaborate a set of proposals for action on specific and practical solutions that are considered effective in the reduction of the yield gap and enrich them with examples of already established or under development best practice that can be shared by other practitioners and/or adapted to other systems/areas, either at EU level or at national/regional/local level.

The second meeting shall be considered as the moment where the FG is delivering an ‘almost’ final product, even if further fine-tuning can be done afterwards, it is the place and moment for the elaboration and sharing of the practical proposals, focusing on all needed details and giving guidance on how to scale them up (or down) and transfer them to other farming systems and regions.

2.2 Preparatory works

In order to deliver on these objectives, **all members of the focus group are requested to contribute in the following way:**

- ✓ **Prior to the meeting**, all should analyse the mini-papers and the synthesis paper and submit comments, aiming at completing the mini papers (including clarifying potential misunderstandings or misinterpretations) – deadline 10/01/2014;
- ✓ **Before the meeting**, check if the table below is correct and complete and prepare answers to the ‘general questions’ (in 2.4) as well as to the ‘specific questions’ (in the last column of the table below). No need to send the answers in advance as they will be discussed in the first part of the second FG meeting, but please have them ready and clear in mind;
- ✓ **Before and during the meeting**, further elaborate the list of proposals/solutions drafted in the synthesis paper;
- ✓ **Before the meeting** send us an experience/example of a solution/action taken to solve one or more of the identified problems. It should be something already done or on-going that you consider a good example for our work and that is linked to the topic of the FG. It can be something you have been working on or that you know even without being directly involved. Please do not describe something that you will recommend or propose but an action already put into place. To describe it, **please use the attached template** as a basis and enrich it with practical details. Also examples of unsuccessful actions can be useful provided there is the explanation of the reasons of their failure. **Deadline for sending the description is January 25th**. We will than discuss and use your descriptions in the meeting. Please consider also scaling up or multiplication of the experiences while describing them.

2.3 Transforming draft ideas into proposals for action

In full respect of the concept of “system approach” that has been highlighted and recognised as strategic by the FG, the proposals put forward in the mini-papers in specific thematic areas have been elaborated into more complex recommendations that may act on several aspects/problems in connection with overcoming the yield gap.

In the following table, the recommendations are grouped per proposed action and the problems specifically addressed are combined. Please note that the mini papers also included a number of research needs, however, this aspect is not in the scope of the second meeting and the list is therefore not included in the table below (nevertheless, the list can be found – for information - in the synthesis paper).

(See table below)

TYPE OF ACTION	TOPIC	THEMATIC AREA CONCERNED	GOALS	ACTORS INVOLVED	SCALE/LEVEL OF IMPLEMENTATION	DETAILS	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	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? Is it possible to be more precise in the description? Is it too wide to be a topic for OG? Which geographical scale is appropriate for the implementation?
	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	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?
	1.3 Increase of soil microbial activity (including N-fixing) by farming techniques	soil fertility management;	To enhance soil fertility and nutrients availability at low costs	Local experimental stations, advisory, farmers	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	Where (geographically and farming systems) is it more urgent/important?
	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 source (multifunctionality of agriculture)	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, amounts and machinery	Are there areas where it is already consolidated?
	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 specialised farms at affordable costs	Farmers, local decision makers	Local implementation	Good examples under development, contractual constrains, social innovation	Is it too specific an issue for OG? Are we sure it is appropriate for OG and not for a demonstration activity?

TYPE OF ACTION	TOPIC	THEMATIC AREA CONCERNED	GOALS	ACTORS INVOLVED	SCALE/LEVEL OF IMPLEMENTATION	DETAILS	SPECIFIC QUESTIONS
	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	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	How to link it to 1.1? As it is key for several topics should it gain high priority?
	1.7 Innovative tillage techniques	Climate change	To maintain production levels and protect soil fertility under climatic changes	Researchers, farmers, machinery producers, advisory	EU relevance but macro-regional implementation	It can be part of 1.1	Is it really a topic for OG? Isn't it part of 1.1?
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 proposals 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?
	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?
	2.4 Composting techniques fine-tuning	nutrient management; soil fertility management;	To give guidance on practical and local level	Farmers, advisory, local experimental stations	Local implementation coordinated at macro-regional	It should be an outcome of 1.4	Could it be done without 1.4? are both actions needed?

TYPE OF ACTION	TOPIC	THEMATIC AREA CONCERNED	GOALS	ACTORS INVOLVED	SCALE/LEVEL OF IMPLEMENTATION	DETAILS	SPECIFIC QUESTIONS
					level		
	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?
	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 unusual practices	Farmers, advisory, local experimental stations	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?
	2.8 Selection of robust varieties	Variety choice; weed management; pest and disease pressure management	To develop local systems of on-farm breeding and share the knowledge needed to identify and assess appropriate varieties	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?
	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?
	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?



TYPE OF ACTION	TOPIC	THEMATIC AREA CONCERNED	GOALS	ACTORS INVOLVED	SCALE/LEVEL OF IMPLEMENTATION	DETAILS	SPECIFIC QUESTIONS
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	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 deciders involved and how to coordinate funding in different regions and Mss?
4. Training and knowledge sharing	4.1 Information and decision support systems	nutrient management, weed management, pest and disease management	To increase appropriate use of the tools by practitioners	Farmers and advisory	Local training facilities	To be recommended to EU training and education programmes (LLL) and to local training plans	At which geographic scale?
	4.2 Tillage optimisation	soil fertility management	To increase proper tillage use by practitioners and develop farmers craftsmanship	Farmers and advisory	Local training facilities	To be recommended to EU training and education programmes (LLL) and to local training plans	Only for organic? Isn't it a more general issue for all farmers?
	4.3 Multifunctional biodiversity and mixed farming	Pest and disease management, weed management	To consolidate the concept practitioners culture and allow innovative implementations	Farmers and advisory but also all production chain actors	Local training facilities	To be recommended to EU training and education programmes (LLL) 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?
	4.4 Farm schools, farmers groups and experience exchange	All topics	To facilitate experience exchange and innovative cultural approached to farming	Farmers, advisors, trainers	Local training facilities	To be recommended to EU training and education programmes (LLL) and to local training plans	Is there the need to change training structures in some Mss?
	4.5 Innovative communication tools (social media etc.)	All topics	To facilitate professional updating and rapid information	Farmers, advisors, communication experts	Trans-regional media and information brokers, contents to be developed locally	It is a tool for all topics and can be instrumental for the whole implementation of EIP	How to make it happen?

TYPE OF ACTION	TOPIC	THEMATIC AREA CONCERNED	GOALS	ACTORS INVOLVED	SCALE/LEVEL OF IMPLEMENTATION	DETAILS	SPECIFIC QUESTIONS
5. Local implementation projects	5.1 Development of new fertilisers	nutrient management	To make available efficient and cheap fertilisers	Fertilisers 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	EU, national, local	It is a recognised problem on which EU and National governments are focussed.	The process is on-going, is there something to be added or just to wait for the process to be completed?

2.4 List of general questions and the work during the second meeting

The list of solutions/actions that can be recommended to close the gap between different yields in the organic arable production can be much longer than the table above (e.g. it can be and it should be complemented with new ideas brought in by members to the meeting, as foreseen in the last bullet point of 2.2). Nevertheless, the FG should identify the most important and most urgent actions which can be implemented EU wide or at national/regional/scale.

To reach this goal during the second meeting, FG members, after running the correctness and completeness check of the table, are 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?
- are there links between actions that can be established?

As said above, **all FG members are requested to prepare before the meeting answers to these general questions as well as to the proposed specific questions.** Naturally, FG members may be selective and focus on the topic they feel more familiar with or have more experience with. Again, there is no need to send the answers in advance but please have them ready for the discussion.