



FACCEJPI

DG AGRI Conference on Agriculture and Innovation
Pre-Event on International Soil Research: Opportunities for
Synergy and Cooperation with FACCE-JPI

27th January 2016
EC, Charlemagne building, Brussels

Agriculture Food Security and Climate Change

On 27th January, 2016, the Joint Programming Initiative on Agriculture, Food security and Climate Change (FACCE-JPI) organised, together with DG AGRI, the event “**International soil research: Opportunities for synergy and cooperation with FACCE-JPI**”. This half day meeting was held as a side event of the DG Agri conference “Designing the path: a strategic approach to EU agricultural research and innovation”.

The event was attended by around 75 participants. There were representatives from many European and international research activities on soil, which made this event an unique networking opportunity for leading international stakeholders on soil-related research.

BACKGROUND OF FACCE-JPI ON SOIL RESEARCH

FACCE-JPI has a good experience developing actions that include projects concerning soil. Regarding the past and on-going ones, we can mention: i) Multipartner call on Agricultural Greenhouse Gas Research; ii) Joint call with BiodivERsA ERA-NET on “promoting synergies and reducing trade-offs between food supply, biodiversity and ecosystem services”; iii) FACCE ERA-NET Plus on Climate Smart Agriculture and iv) Joint call with the Belmont Forum on Food Security and Land Use Change.

In addition FACCE-JPI is developing a set of new actions to be implemented in the near future, such as: i) the ERA-GAS ERA-NET CoFund on Monitoring and Mitigation of Greenhouse Gases from Agri- and Silvi-Culture in complementarity with the ERA-NET Cofund SusAn on sustainable animal production; ii) WaterWorks 2015 ERA-NET CoFund with JPI Water on sustainable water use in agriculture to increase water use efficiency and reduce soil and water pollution and iii) the Thematic Annual Programming (TAP) Network on “mechanisms and assessments of the potential for carbon storage in soils across regions and systems” (to contribute to the 4/1000 initiative launched at the COP 21).

OBJECTIVES AND STRUCTURE OF THE EVENT

The event has been focused in three main objectives:

- Explore the international landscape on soil research;
- Show the work of FACCE-JPI on issues related to soil;
- Explore opportunities for synergy and cooperation at the EU and international level, including with the recently launched 4/1000 initiative (COP 21).

Regarding its structure, the event was structured in two main sessions: i) A first part called “Setting the scene: soil-related research for food security and climate change mitigation”, composed by a series of plenary presentations and ii) An interactive panel discussion on possibilities for cooperation.

The first part of the meeting was composed of six presentations about international initiatives on soil: i) FAO/ Global Soil Partnership (*Ronald Vargas Rojas / GSP FAO*); ii) Global Research Alliance (*Martin Scholten / WUR*); iii) The relevant work on soil by the EC Joint Research Centre (*Arwyn Jones / JRC*); iv) International Union of Soil Sciences (*Rattan Lal / Ohio State University*); v) the FACCE-JPI work on soils (*Rattan Lal / Ohio State University*) and vi) the 4/1000 initiative (*Jean-François Soussana / INRA*).

The second part of the meeting involved a panel discussion including the above speakers plus representatives from Inspiration CSA (*Stephan Bartke / UBA*), BiodivERsA ERA-NET (*Maurice Heral / ANR*) and ISRIC and BonaRes (*Rik van den Bosch / WUR*). The results of this discussion are summarised in the next section.

PANEL DISCUSSION: QUESTIONS AND FINDINGS

The discussion was focused on three main questions:

1. What are the overarching goals and needs internationally for soil research related to climate change?
2. How to share data and databases? What tools are needed?
3. What kind of support does the international community need? (Joint calls, support for networking, shared database, etc.)

The main findings of the debate, regarding each question, were:

1. What are the overarching goals and needs internationally for soil research, food security and climate change?

- There is strong need for integration of existing research. Not only basic research but also data sets, indicators, etc. from different countries.
- Integration of global research, but also research integration of various scales is crucial. We have to go from local to global and multisectoral.
- The study of soils as a resource for food security and climate mitigation has to be a common goal for scientific researchers. It is also important to look at global targets but with local reference.
- There is need for global hotspots map for C sequestration at a proper scale (1:10.000). This is a huge challenge as even 1:1.000.000 is a major sensitive issue already.
- There is a need for a better understanding of functions that biodiversity provides in the soil, including C sequestration.

2. How to share data and databases. What tools are needed?

- There is a clear need to share data, databases, models, but data may be strategic for countries and not available as there is less field work done today.
- Use of Web-based platforms
- Implication and use of important data-centres (JRC / FAO)
- Need for soil information systems, based on local data to fulfil local needs.
- It is important to remark that BiodivERsA ERA-NET has a database with 6300 projects and 600 annual calls.

3. What kind of support does the international community need?

- A roadmap for new products with a timescale of 5 -10 years.
- New technologies and use of big data (web-based platforms, ICT, sensors, remote sensing...)
- Examples of good beneficial practices and demonstration at farms sites.
- Create scenarios for policies.
- Include stakeholders and end-users. Use existing platforms and networks in a more efficient way, instead of creating new ones.
- Move from EU cooperation to a large international cooperation.

GENERAL OVERARCHING CONCLUSIONS

Taking into account the information provided by the presentations on international initiatives and the findings from the plenary debate, the main conclusions of the event could be summarised in the next points:

- In the study of soil, it is critical not only to focus on what we have lost but protect and preserve what we still have, and if possible, enhance it.
- We have to keep in mind the importance of including the farmers in the research projects.
- Soil processes take a long time and need long-term research. Hence it is necessary to raise awareness of policy makers about the impossibility of having immediate effects (positive/negative).
- Increase cooperation between the different JPIs: FACCE, Climate, Water, etc.
- Move from EU cooperation to a large international cooperation with other institutions (e.g. GRA, Belmont forum, IUSS) in a step by step pathway to open activities using a tailored approach.
- There is a need to foster connections with regional initiatives (e.g. Mediterranean, Africa) and FAO.
- There is a need for support but also for leadership.
- There is not a lack of instruments but a lack of implementation.
- It is crucial to pursue harmonisation and standardisation of definitions, data and tools.
- FACCE and the GRA must work together with the 4/1000 initiative around common goals at the global level.

NEXT STEPS

This event has been a unique opportunity to gather many of the most important initiatives and experts on soil quality at world level. Hence it is important to strengthen the links created, exploring further contacts between FACCE-JPI and the speakers and initiatives present in the event, specially:

- To dialogue with GRA on how to go forward in our collaboration, especially in the remit of the 4/1000 initiative.
- To broaden the focus, from EU to international, establishing links with international institutions such as IUSS and Belmont Forum. This could take the form of an International Research Consortium (IRC).
- To foster connections with regional initiatives (e.g. Mediterranean, Africa) and FAO.
- To Increase cooperation between the different JPIs, especially through enhancing exchanges.
- To develop FACCE initiatives related to soil (including TAP Soil).

ANNEX 1: Participants list

First name	Last name	Organisation
Isabelle	Albouy	INRA
Pablo	Aller	INIA
Kirsti	Anker-nilssen	The Research Council of Norway
Francesca	Bampa	TEAGASC
Stephan	Bartke	German Environment Agency - UBA
John	Bell	European Commission
Claudio	Bogliotti	CIHEAM-Bari
Deborah	Bossio	CIAT
Carlos	Cantero-martínez	Universitat de Lleida
Lopo	Carvalho	European Parliament
Jean - charles	Cavitte	European Commission
Claire	Chenu	AgroParisTech
Harry	Clark	NZAGRC/GRA
Pinar	Çubukcu	Eastern Mediterianen Agricultural Research Institute
Nicola	Dall'olio	Regione Emilia Romagna
Grant	Davidson	The James Hutton Institute
Gaëtan	Dubois	European Commission
Maureen	Duru	The Food Bridge
Martti	Esala	Natural Resources Institute Finland
Magdalena	Frac	Institute of Agrophysics Polish Academy of Sciences
Elfriede	Fuhrmann	Federal Ministry of Agriculture, Forestry, Environment and Water Management
Elba	Fuster	CREAF
Margaret	Gill	FACCE SAB
Benoit	Gnonlonfin	National Institute of Agricultural Research, Benin
Niels	Gøtke	DASTI (Danish Agency for Science, Technology and Innovation)
Tobias	Gräs	Danish Agricultural Council
Andreas	Gumbert	European Commission
Katharina	Helming	ZALF Leibniz Centre for Agricultural Landscape Research
Maurice	Heral	Agence Nationale Recherche
Doru - leonard	Irimie	European Commission
Asare	Ishmael	MINISTRY OF FOOD AND AGRICULTURE
Arwyn	Jones	European Commission
Raymond	Kelly	Teagasc
Emmanuelle	Klein	MENESR
Evangelos	Koumentakos	Copa and Cogeca
Erik steen	Kristensen	Aarhus University, Dep. of Agroecology
Rattan	Lal	FACCE-JPI
Stefan	Lange	Thünen Institute - Federal Research Institute for Rural Areas, Forestry and Fisheries
Jurgita	Lekaviciute	FACCE-JPI secretariat
Philippe	Lemanceau	INRA
Jan peter	Lesschen	Alterra, Wageningen UR
Caroline	Lesser	FACCE-JPI secretariat
Wenbo	Liu	Chinese Academy of Agricultural Sciences
Antonio	Lo porto	EURAQUA - Network of EU Public Research Institutes on Water
Aldo	Longo	European Commission
Stefanie	Margraf	Project Management Jülich, Germany
Josiane	Masson	European Commission
Bruce	Mccallum	New Zealand Ministry of Business, Innovation & Employment
Heather	Mckhann	INRA/ FACCE-JPI
Xu rong	Mei	Chinese Academy of Agricultural Sciences
Jantiene	Meijer	CABI
Paloma	Melgarejo	INIA
Bram	Moeskops	TP Organics
Alessia	Musumarra	Confederazione Italiana Agricoltori - Brussels Office
Szilvia	Nemeth	European Commission

Frank	O'mara	<i>Teagasc</i>
Mikko	Peltonen	<i>Ministry of Agriculture and Forestry</i>
Virgílio	Pereira	<i>Magellan</i>
Rob	Peters	<i>European Commission</i>
Philippe	Petithuguenin	<i>CIRAD</i>
Nana	Phirosmanashvili	<i>AFRD-EUFRAS Georgia</i>
Niina	Pitkanen	<i>Natural Resources Institute Finland (Luke)</i>
Enrique	Quesada moraga	<i>Cordoba University</i>
Francesca	Ricardi	<i>Veneto Agricoltura - Veneto Region</i>
Ahmet korhan	Sahar	<i>Eastern mediterianen agricultural research institute</i>
Herve	Saint macary	<i>CIRAD</i>
Martin	Scholten	<i>Wageningen UR Animal Sciences Group</i>
Jean - françois	Soussana	<i>INRA</i>
Hartmut	Stalb	<i>Federal Ministry of Food and Agriculture</i>
Dorri	Te boekhorst	<i>Wageningen UR / FACCE JPI</i>
Matina	Tsalavouta	<i>Rothamsted Research</i>
Hendrik	Van den bosch	<i>ISRIC - World Soil Information</i>
Ronald	Vargas	<i>FAO</i>
Yasemin	Vurarak	<i>Eastern Mediterranean Agricultural Research Institute</i>
Brigitte	Weber-frowein	<i>Infozentrum Schokolade</i>
Annette	Wijering	<i>Ministry of Economic Affairs</i>
Serhat	Yildirim	<i>TÜBİTAK</i>

ANNEX 2: Agenda

Chair: Maurice Héral, ANR

8:30-9:00	Registration and welcome coffee
Session 1. Introduction	
9:00-9:15	<p>Welcome – Maurice Héral, ANR</p> <p>Background and expected outcomes</p> <p><i>Speaker: Rob Peters, DG Agri, European Commission</i></p>
Session 2. Setting the scene: Soil-related research for food security and climate change mitigation	
9:15-10:30	<p>Presentation of the work of the FAO/ Global Soil Partnership (7 min) <i>Speaker: Dr. Ronald Vargas Rojas</i></p> <p>Presentation of the work of the Global Research Alliance (7 min) <i>Speaker: Dr. Martin Scholten</i></p> <p>Presentation of relevant work by the EC Joint Research Centre (7 min) <i>Speaker: Dr. Arwyn Jones</i></p> <p>Presentation International Union of Soil Sciences (5 min) <i>Speaker: Dr. Rattan Lal</i></p> <p>Presentation of the FACCE-JPI work on soils (7 min) <i>Speaker: Dr. Rattan Lal</i></p> <p>Presentation of the 4/1000 initiative (7 min) <i>Speaker: Dr Jean-François Soussana</i></p>

	Discussion
10:30-10:45	Coffee break
Session 3. Possibilities for cooperation- interactive panel discussion	
10:45-11:45	<p><i>Panel including above speakers + Inspiration CSA, BiodivERSA ERA-NET, ISRIC and BonaRes.</i></p> <p>Specific questions to be addressed:</p> <ul style="list-style-type: none"> • What are the overarching goals and needs internationally for soil research related to climate change? • How to share data and databases? What tools are needed? • What kind of support does the international community need? (Joint calls, support for networking, shared database...?) <p><i>Open discussion with the audience</i></p>
Session 4. Conclusions and next steps	
11:45– 12:00	Wrap-up / Speaker: Maurice Héral, ANR / J.F. Soussana, INRA