



International Society of Organic Agriculture Research

## **SOILVEG project kicked off in Italy, in the European Capital of Culture 2019**

***"Improving soil conservation and resource use in organic cropping systems for vegetable production through introduction and management of Agro-ecological Service Crops"*** (SoilVeg) is an innovative European research project, led by the Italian Agricultural Research Council (CRA) and funded, at European level, by Core Organic Plus.

It has kicked off on the 17-20th March 2015, in Matera, the Italian city recently awarded European Capital of Culture: for 3 years, 9 European countries and 14 partner Institutions will be working together with the aim to study the better management of Agro-ecological Service Crops.

Agro-ecological Service Crops (ASC) introduced in the agro-ecosystem in order to provide or enhance ecological functions, represent a powerful tool for organic farmers. ASC are able to positively influence the agro-ecosystem, promoting the whole soil-plant system equilibrium in space and time, having impact on soil fertility and on occurrence of weeds, diseases and pests. If appropriately managed, ASC can contribute to reduce nutrient losses from the agroecosystem, to increase soil C sink potential and to improve system energy use efficiency.

During the next three years, SOILVEG research activities will aim at verifying the hypothesis that the use of the roller crimping technology for ASC termination is able to:

1. maintain yield of the cash crops and vegetable products quality,
2. reduce soil disturbance and enhance soil quality, improving internal system use of nutritive elements,
3. reduce fossil fuel energy consumption,
4. create a suppressive environment for pests, diseases and weeds.

The main challenge of the project will also be to test the hypothesis that, compared with the incorporation of ASC into the soil as green manure, the use of the roller crimper reduces nutrient losses from the soil/plant system and GHG soil emission. The main expected result is the optimisation and the spreading of novel ASC management strategies aimed to improve soil quality and to enhance resources use in organically managed systems for vegetable production.



*Photo: Stefano Canali, SOILVEG coordinator, presents the roller crimper to the partners at CRA-SCA research farm “Campo 7” (Metaponto – MT, Italy)*

All the researchers are ready to start their field experiments both in the Northern and in the Southern European climatic areas. First results will come out by the end of the first year and will be disseminated to all the stakeholders and, mainly, to the organic vegetable producers from the involved European countries.

Stefano Canali, the Italian scientific project coordinator, underlines: *“the smart designing of cropping system and the use of ASC have been included in the list of the most promising techniques to improve N use efficiency and reduce the risk of nitrate leaching. It is expected that the results obtained in this project in the area of the cropping system smart designing and Agro-*



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*ecological Service Crops exploitation will contribute to meet the increasing demand of innovation and to give to the European OFF sector a leading role in a global perspective".*



*Kickoff meeting in Matera - 18/03/2015*

**Project partners:**

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Learn more about SOILVEG on the project website [COREorganicplus.org](http://COREorganicplus.org)

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## Core Organic Plus project: FertilCrop

A new [CORE Organic Plus](#) project with 20 partners from 13 countries, coordinated by the Research Institute of Organic Agriculture (FiBL) Switzerland, has been launched.



### *The FertilCrop team at the first meeting in Frick, Switzerland:*

*Front l-r: Roc Mihelic (University of Ljubljana, UL, Slovenia), Anamarija Slabe (Institute for Sustainable Development, ISD, Slovenia), Metka Suhadolc, UL, Slovenia) Izik Öztürk (Aarhus University, AU, Denmark), Ron de Goede (Wageningen University and Research Centre, WUR, Netherlands), Jørgen Olesen (AU, Denmark), Randi Frøseth (Bioforsk, Norway), Sissel Hansen (Bioforsk, Norway), Maike Krauss (FiBL, Switzerland) Paolo Bärberi (Scuola Superiore Sant'Anna, SSSA, Italy), Andreas Fliessbach (FiBL, Switzerland), Daniele Antichi (Centro di Ricerche Agro-Ambientali, CIRAA, Italy), Michael Schloter (Helmholtz Zentrum München, HMGU, Germany), Giau Cesare Pacini (DISPAA, Italy), Ulla Bertelsen (International Centre for Research in Organic Food Systems, ICROFS, Denmark), Zydre Kadziulienė (Lithuanian Research Centre for Agriculture and Forestry, LRCAF, Lithuania), Paul Mäder (FiBL, Switzerland), Joséphine Peigné (ISARA, France), Raphaël Metral (Institut National de Recherche Agronomique, INRA, France. Back l-r: Helga Willer (FiBL, Switzerland) Jordi Doltra (Cantabrian Agricultural Research and Training Centre, CIFA, Spain), F. Xavier Sans-Serra (University of Barcelona, UB, Spain) José Manuel Blanco (UB, Spain), Stefano Carlesi (SSSA, Italy), Anne Luik (Estonian University of Life Sciences, EULS, Estonia) Liina Talgre (EULS, Estonia), Jaroslaw Stalenga (Institute of Soil Science and Plant Cultivation, IUNG, Poland), Ton Baars (Fundacja im. Stanisława Karłowskiego (FSK), Poland), Florian Celette (ISARA, France), Christian Gary (INRA, France)*

Organic agriculture builds on fertile soils and needs farming systems that make best use of the available natural resources. Soil fertility in arable farming systems has to be managed in order not



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to be lost. Organic inputs to feed the soil are an important measure to increase soil fertility, but also reduced soil tillage and improved crop rotation including green manures and cover crops are helping to build fertility. A fertile soil is indicated by a good soil structure, high biological activity and plant nutrients available at the time of crop demand.

FertilCrop is a network of scientists working in the areas of crop and weed science, soil sciences (soil physics, chemistry and biology), modelling and farm prototyping. Interactions of crops with weeds, soil macro- and micro-biota are a major focus of this project that builds on a large number of field trials (Figure 2, map). Another focus is to gather information on nutrient dynamics in soils and if or how they can be modelled in order to be predictable. FertilCrop will add to the existing knowledge by testing effects of reduced soil tillage in combination with other management options to build soil fertility and verify the clear distinction of their suitability along climatic gradients across Europe.



*Distribution of field trials available for research within FertilCrop*

Soil samples and continuous data sets from long-term experiments run by the team members in the various participating countries will allow for in-depth studies of soil fertility indicators and soil nitrogen dynamics as well as modelling.



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FertilCrop will explicitly include combinations of management options that build a fertile soil. In close collaboration with farmers a particular emphasis is paid to using, testing and also developing tools that help to recognize and evaluate a fertile soil.

For more information about this project, please visit [FertilCrops.net](http://FertilCrops.net) or [Tilman-org.net](http://Tilman-org.net)



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## Highlights of the 10th National Conference on Organic Agriculture

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*Courtesy visit by OAPTIN national officers to the Vice Chancellor (Prof. A.S. Gbadegesin - third from left). Prof. Victor Olowe, second from left. Dr. Florence Olowokere, National Coordinating Scientist of OAPTIN, to the right.*

### **Organic transformation**

The 10th National Conference on Organic Agriculture in Nigeria, tagged “LAUTECH 2014”, had the headline “Organic Agriculture Research: A Catalyst for Sustainable National Agricultural



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Transformation Agenda”. The conference was successfully held on Monday 17 – Thursday 20 November, 2014 at Ladok Akintola University of Technology, Ogbomoso, Nigeria. It was attended by over 80 participants including 33 graduate students.

Since the maiden edition was held in 2005 at the Federal University of Agriculture, Abeokuta, with the headline “Organic Agriculture for Sustainable Food Security”, the conference has been arranged annually. The conference is usually organized by Organic Agriculture Project in Tertiary Institutions in Nigeria (OAPTIN), which is a university based NGO with a national secretariat at the Federal University of Agriculture in Abeokuta. The vision of the project is “good food, safe food and plenty to eat at all time” and it is focused on capacity building of stakeholders in organic agriculture, strategic research that is demand driven, advocacy to increase support for the movement, building partnerships with local, national and international organizations, and disseminating research findings to the end users.

During 2008/09, OAPTIN successfully trained 23 agriculture graduates under the Work Earn and Learn Project (WELP). During 2010, 2012 and 2014, OAPTIN mounted three intensive International Summer School Programmes in organic agriculture. Further, OAPTIN has arranged ten National Conferences, and two international workshops on curriculum development for undergraduate and postgraduates studies in West Africa. These workshop were arranged under the auspices of an initiative domicile in FUNAAB called West African Network on Organic Agriculture Research and Training (WANOART), and sponsored by the European Union. OAPTIN recently concluded an EU sponsored collaborative project involving six Higher Educational Institutions (HEIs) namely University of Cape Coast, Ghana, Kwame Nkrumah University of Science and Technology, Kumasi Ghana, Njala University, Sierra Leone, Universite d’Abomey-Calavi, Republique du Benin, University of Agriculture, Abeokuta, Nigeria and Coventry University, UK. The project aimed at increasing the level of expertise in all aspects of Organic Agriculture in the West African sub-region (2010 -2012). OAPTIN actively collaborates with Coventry University in UK, British Council, Department for Business Innovations & Skills and the European Union. OAPTIN is also a registered corporate member of the Association of Organic Agriculture Practitioners of Nigeria (NOAN), the national movement on organic agriculture in Nigeria.

The high points of the 10th National Conference included the courtesy visit of the National Officers of OAPTIN to the Vice Chancellor (Prof. A.S. Gbadegesin) of Ladok Akintola University of Technology (LAUTECH) before the opening ceremony (Pictures 1a & b), presentation of the maiden edition of the Journal of Organic Agriculture and Environment (JOAEN) and the Book of Proceedings of the 9th National Conference on Organic Agriculture to the chief host (Pic. 2), a brief presentation on ISOFAR to sensitive the participants on the benefits they can derive from being members of the Society, and National Curriculum Review Workshop on Ecological Organic Agriculture Workshop held on 19th November, 2014 (Pic. 3). The workshop reviewed the current curricula and training materials of relevant training Institutions in Nigeria with the stakeholders (practitioners, institutions and policy makers). The 11th National Conference is going to be hosted by the Federal University of Technology, Minna in Niger State,



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Nigeria in November, 2015. About 50 participants expressed interest in becoming ISO FAR members.



*Courtesy visit by OAPTIN national officers to the Vice Chancellor (Prof. A.S. Gbadegesin – in the front) of LAUTECH before the Conference opening ceremony on 17<sup>th</sup> Nov. 2014*



*Presentation of the maiden edition of the Journal of Organic Agriculture and Environment (JOAEN) and the Book of Proceedings of the 9<sup>th</sup> National Conference on Organic Agriculture to the chief host, Prof. A.S. Gbadegesin, by Victor Olowe.*



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*OAPTIN participants at the Curriculum review workshop  
(Prof. Victor Olowe (fourth from right) and the  
Key Resource person Prof. V.A. Togun from LAUTECH (centre))*



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## 4th international Organic Agricultural Forum in China



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Pujiang is a small town close to Chengdu, the capital of the Sechuan district of China. Being the location of several successful industrial companies, but also located in the middle of a very productive agricultural area, Pujiang works hard to develop a green industry and efficient ecological production of the local crop specialities, which are kiwi, citrus and tea. The area also has a large livestock industry (eggs). Pujiang mentions itself as “Green Pujiang Ecological City”; however, it should not be confused with Pujiang close to Shanghai, which was developed as an “ecological town” in Italian style during the 2010 World Expo. China was one of four countries competing to be

hosting the next IFOAM Organic World Congress, and the Chengdu region would have been the place to arrange this event if they had succeeded.

On Dec 12, 2014, the 2014 China (Chengdu) Organic Agricultural Forum, was arranged in Pujiang. This event was the 4th international organic agriculture (OA) summit arranged in China. It was hosted by Chengdu municipality, Department of agriculture in the Sichuan province, the Chinese newspaper and organisation “Farmers daily”, and several organic industry bodies. Scientifically it was supported by China Agricultural University in Beijing, where Dr. Wenliang Wu (ISOFAR board member since 2011) is a coordinator of organic agriculture research and education activities. It was also supported by the certification body Ecocert China. The title of the 2014 summit was “Healthy Soil and Standard Certification”.

About 220 participants attended the organic summit, mostly from the administrative and commercial side. Several industry partners participated, but no “individual farmers”.

Chinese agriculture is commonly organised as a cooperative industry, where individual farmers let the industry decide and plan the production, but all the manual work is carried out by the farmers on their share of the land.

The technical quality of the forum was excellent, with highly qualified simultaneous interpretations and a high standard meeting room. Talks in English were given by Marie Louise Flach de Nergaard, representing the Danish embassy in Beijing where 14 persons work to support



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an extensive Chinese-Danish food trade including organic produce, and by ISO FAR vice president Anne-Kristin Løes.



There were quite many formal opening talks, where mayors from the supporting bodies and regional party members expressed their interest in organic agriculture as a means to solve the critical environmental problems in China, and to ensure food quality. Ms. Yuxiang Zhang, director of China agri-products marketing association, explained that China has 24 certified organic companies, national action plans for organic agriculture, and several eco-cities such as Pujiang. IFOAM president André Leu was represented by the president of IFOAM Asia and IFOAM world board member, Dr. Zejiang Zhou, who emphasised the rapid growth of organic agriculture in China, putting this country as number 4 in the world with respect to certified organic area.

The topic presented by Anne-Kristin Løes was “Soil Ecosystem Quality Improvement of Organic Farming in Europe”. It was shown how organic agriculture can contribute to soil fertility by practices such as crop rotation, manures and mulches and careful soil management, supported by results from the long-term DOK study in Switzerland, and a long-term trial at Aarhus University, Denmark. Manure application is good for soil structure and creates a living soil with a high capacity to degrade organic matter, but still keep a stable humus in soil. Legumes are useful, but should rather be used in an anaerobic digestion treatment and then applied to soil as fertiliser, than mulched on the ground, to avoid N emissions. The need for good soil care was highlighted by a later speaker, Dr. Jiayi Yu, who emphasised the need to increase soil organic matter contents in Chinese soil, where this is often degraded from originally 7-9% to about 2%! There have been



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good reasons to press the land hard, with a rapidly increasing population and decreasing amount of land. Two yields per year are normal in most regions, and in some regions even three yields are taken. In China, when talking English, stakeholders distinguish between “ecological” production (which is probably what would be called “integrated” in Europe, e.g. with less dangerous pesticides), and organic.

Ecological production has no standards or certification by 3rd part. Controls have shown significant presence of fraud in organic produce and pesticide residues in products marketed as organic. This shows the need for information and training, and for strict control systems. “Ecological civilization” was a concept that was much used during the forum. This can be seen as a development of society where organic agriculture is a source of inspiration. In the final, summarising presentation, Dr. Prof. Wenliang Wu referred to a “white paper” on organic agriculture that has recently been presented by the Certification and Accreditation Administration of the People’s Republic of China, CNCA. It has taken more than four years to produce, and it is a very thorough work to describe the current status of OA in whole China. There are more than 6000 SMEs certified organic in China, and close to 1 % of the farmland is organically managed. That comprises 1.3 million hectares with China organic standard. In addition, there is significant collection of wild products. All 32 provinces of China have some certified organic production, and the growth is rapid. Due to heavy pollution, the interest for organic products among Chinese consumers is significant, but the premium prices are still very high (30-500 %).

The afternoon was used for an excursion to organic kiwi, tea and production input industries. We were driving through a beautiful, diverse landscape, passing small villages on our way to kiwi fields and tea hills. We visited processing plants, but for a European person, it was not easy to really grasp what made the production organic since the interpretation service was not included in this part of the programme. The final visit was to Chengdu New Sun Crop Science industry, where “natural” pesticides and fertilisers were produced in several large buildings. We were ensured that only natural ingredients were used. However, organic agriculture should be something more than replacing conventional inputs by “organic” inputs. On the other side, it is of course better to avoid poisonous pesticides whenever possible, but natural compounds are not necessarily always harmless just because they are derived from nature.

While in China, Anne-Kristin Løes also visited an experimental station for winter wheat, and the CAU in Beijing to discuss possibilities for future cooperation. ISO FAR leaflets were handed out

to several potential members. Grateful for this great opportunity to visit an impressive country, I let the words in a poem, beautifully expressed in a calligraphic by Wenliang Wu, complete this report:



***Green hills and blue waters - beautiful country scene.***



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## Science Day at BioFach

**TP Organics (European Technology Platform for Organic Food and Farming) and TIPI (Technology Innovation Platform of IFOAM) again conducted Science Day at BioFach 2015. TP Organics presented their new strategic research and innovation agenda (for EU), and TIPI presented the draft of the TIPI Vision and Strategy for Organic Farming Research (for the world). The day was opened by Andre Leu, president of IFOAM, and Marco Schlüter, director of IFOAM EU.**

TP Organics strategic research and innovation agenda describes the research and innovation priorities of the European organic sector until 2020. Solving the challenges described will be crucial to drive the development of the sector and strengthen its competitiveness. The new Strategic Research and Innovation Agenda will be used to influence funding priorities of EU and national research programmes.

The document demonstrates that increased research investment for the organic sector has much to offer, not only in terms of designing more sustainable production systems, but also for the design of new and resilient business models. TP Organics therefore demands that at least 10% of the Horizon 2020 research budget for agriculture and food production (Societal Challenge 2) be dedicated to the organic sector.

After the launch of the Strategic Research and Innovation Agenda, speakers from the European Commission, both DG Agriculture and Rural Development and DG Research and Innovation, gave an overview of the instruments available in Horizon 2020 to fund research in the organic sector.





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*Photo: Hans-Jörg Lutzeyer, DG Research and Innovation*

## **The TIPI Vision and Strategy for Organic Farming Research**

The vision has been developed at meetings such as earlier Science Days and at the Organic World Congress in Istanbul, Oct. 2014. Input from stakeholders will now be integrated into a new version. Dora Drexler (TIPI vice president and director of the Hungarian Institute of Organic Agriculture ÖMKI) presented the results of a survey on global research needs of organic farmers. In total, 39 main challenges were identified and grouped by challenges related to organic systems, field practises, inputs, crop management, livestock health, and socio-economic conditions, as well as post-harvest and processing problems. Three stakeholders representing industry, policy and organic agriculture in Africa commented on the vision and recommended revisions. Afterwards, a workshop was conducted to improve the vision.



*Photo: Dr. David M. Amudavi speaking about the challenges for organic agriculture in Africa.*





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## Network: Forum of Organic Agriculture supports research



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### The Association Forum of Organic Agriculture

The Association Forum of Organic Agriculture named Mieczysław Górny ('Forum RE') was initially established in 2006 as an informal group of researchers with a high interest in organic agriculture. As it developed actively over time, on the 5th of June 2009 it was officially registered under the current name „Forum Rolnictwa Ekologicznego im. Mieczysława Górnego". At the moment Forum RE has 69 regular members and 7 supporting members - certifying bodies for organic agriculture in Poland. Since 11th June 2010 Forum RE has been a member of IFOAM (International Federation of Organic Agriculture Movements) and IFOAM EU Regional Group.

The main goals of the association are to promote organic farming amongst agricultural producers and processors, to promote organic foods, to protect natural heritage, environment and human health, to build ecological awareness, to integrate people, societies and organizations (national and international) focused on similar aims, to formulate research problems addressing the needs of the organic sector and to support education of high quality specialists in the topic of organic farming.

Forum RE is very active, organizing at least 3 thematic meetings every year. Since 2011 the anti-GMO activities of the association have been supported by German Grassroots Foundation. Thanks to the Grassroots Foundation Forum RE organized 2 seminars in the topic of genetically modified organisms, intended for wide audience, including politicians and media. Moreover, in the last two years (2014-2015), together with Grassroots Foundation and another German organization GEKKO, Forum RE has been organizing a series of lectures in Warsaw high schools. The aim of this initiative is to increase the knowledge of students and lecturers about GMOs and to raise their awareness of environmental and animal- and human health related risks of introducing GMOs to agriculture.

Forum RE brings together all parties interested in organic farming in Poland, helps to formulate common statements in the topics important for our country (such as e.g. GMO production) and to direct them to the decision makers at national level. Additional important aspect of the Forum RE activities is exchange and dissemination of the up-to-date scientific knowledge in the area of organic agriculture as well as helping practitioners to understand & deal with the practical



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implementation of legal regulations.

Members of Forum RE are experts in the area of organic farming and organic food quality. They work together to identify current problems of the organic sector and to offer constructive solutions. Forum RE offers trainings for organic farmers and other stakeholders representing organic food production chain.

### **Stowarzyszenie Forum Rolnictwa Ekologicznego im. Mieczysława Górnego**

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