



Issue 2, December 2009

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Editorial

Welcome to this second ICT-AGRI Newsletter!

ICT-AGRI has now been running for over half a year and a number of key tasks have been started and networks have been created. Mapping and analysis of existing research and future needs have been started and we have prepared topics for the first call in 2010. So we are moving on a fast track. And we are busy.

But outside the ERA-NET matters are also moving. The European research policy is changing and will in the coming years take into account national research policies and other EU and national policies. The *Joint Programming* concept has been agreed by the Council. This means that collaboration between Member States based on common visions will be increased. By putting resources together, when addressing major societal challenges, we have the potential of achieving high added value of our efforts.

In the framework of the UN climate conference in Copenhagen (COP 15) and in the light of the challenges of European agriculture for maintaining both sustainability and competitiveness,

research in Information and Communication Technologies (ICT) and robotics becomes essential. Without new technologies we will not be able to tackle these challenges. That gives this ERA NET an important role.

In 2010, ICT-AGRI will launch the first joint call. Allocation of national funds for joint calls is crucial for the ERA-NET. Therefore we are working hard for commitment to participate among partners.

ICT-AGRI is, however, more than joint calls. In 2010, contacts to agriculture, industry, researchers and governments will be intensified to make sure that we will meet their requirements. This is important for the ICT-AGRI network in order to meet its objective of developing a common European research agenda on ICT and robotics in agriculture and related environmental issues.

On behalf of the ICT-AGRI team, I wish you a Merry Christmas and a Happy New Year.

Niels Gøtke, Coordinator



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Update from ICT-AGRI

ICT-AGRI in short by Stefan Schülz (BMELV, DE) & Carina Madsen (DFIA, DK)

ICT-AGRI began on 1 May 2009 and will be running for 51 months. The ERA-NET has 18 partners, with Denmark as the Coordinator and Germany as Deputy. The project traces back to an initiative of the SCAR-Collaborative Working Group.

The ERA-NET is horizontal and cutting across several themes in the EU-Cooperation Programme (FP 7), namely Theme 2: Food, Agriculture and Fisheries, and Biotechnology, Theme 3: Information and Communication Technologies, and finally Theme 6: Environment including Climate Change.

The ERA-NET addresses research on the application of information and communication technologies and robotics in agriculture. Productivity and profitability in agriculture will be increased with

the utilisation of these new technologies and at the same time the negative impact on the environment of the agricultural production can be managed in a sustainable way.

The technological background is a rapidly increasing disposability of pervasive computing technologies. In spite of growing competition from countries such as US, China and India.

ICT is still one of the research and innovation fields where the EU has the leadership in many areas. An intensified European, coordinated effort to create a more coherent research area of new advanced ICT technologies will further strengthen the competitiveness of the European ICT research and production capacities.

No country is able to tackle the challenges of the engineering research alone, so the collaboration of an EU-level will be an absolute advantage in particular for the engineering community of the partners involved.



Two new ICT-AGRI Observers

At a recent ICT-AGRI Governing Board meeting it was agreed to accept two new observer organisations into the consortium. On behalf of the ICT-AGRI Partners we welcome the Agricultural Research Institute (Cyprus) and Wageningen University (the Netherlands).

ICT-AGRI Work Packages

Work Package 1	Work Package 2	Work Package 3	Work Package 4	Work Package 5
Coordination, Management & Dissemination	Mapping and Analysis of Existing Research and Future Needs	Developing Instruments and Procedures for Transnational Funding Activities	Developing a Strategic Transnational Research Agenda and Programme	Establishing and Maintaining Linkages to other Networks and Disciplines
WP Leader: Denmark (DFIA) WP Deputy: Germany (BLE)	WP Leader: Belgium (EV-ILVD) WP Deputy: Malta (MCST)	WP Leader: Israel (MARD) WP Deputy: Greece (GRNET)	WP Leader: Germany (BLEV), WP Deputy: Switzerland (FDAG)	WP Leader: Italy (MiPAAF) WP Deputy: Latvia (LAS)
Objectives:	Objectives:	Objectives:	Objectives:	Objectives:
<ul style="list-style-type: none"> • Overall coordination and management of the ERA-NET • Support partners and overview progress • Reporting to the Commission • Ensure communication and dissemination of results 	<ul style="list-style-type: none"> • Mapping of current funding and research programmes • Compare and contrast programmes • Setting up database on national programmes • Identify common trends, research gaps and emerging needs 	<ul style="list-style-type: none"> • Develop instruments, mechanisms and procedures for joint calls • Implement joint research calls • Monitoring of projects • Evaluate impact of joint calls and refine the instruments and procedures 	<ul style="list-style-type: none"> • Develop and coordinate a transnational strategic research agenda • Prioritise research areas and topics • Provide foresight scenarios • Review and evaluation of decision-making process in national programmes 	<ul style="list-style-type: none"> • Collaboration with external stakeholders • Establish and maintain linkage with relevant networks • Evaluate best practises • Develop a framework for long-term networks and disciplines

Update from ICT-AGRI

Progress report from Work Package 3 on Mapping by Iver Thysen (DFIA, DK)

Mapping the current European research area of ICT-AGRI is an important task of the ERA-net.

A mapping of a research area means a systematic recording and analysis of data describing the research activities.

During the mapping, useful information on fundamental and applied research carried out by universities, research institutes and industry, as well as information on the implementation and integration of the results are collected.

Analysis of this information will make it possible to identify gaps in current research and needs for future research. These gaps and needs will form a basis for a strategic research agenda and future joint calls for European projects.

Objectives

The specific objectives of the mapping in ICT-AGRI are:

- To systematically gather information on existing research programmes, technology platforms, industry representatives and other resources for ICT, robotics, agriculture and environment within the EU and associated countries at both national and regional levels.
- To identify common trends and important or emerging needs in ICT, robotics, agriculture and environment.

- To evaluate and analyse this information and compare current research strategies and priorities to identify existing and potential linkages between research programs and industry.
- To identify research gaps and needs.
- To present information that facilitates an effective use of ICT and robotics contributing to the development of a profitable as well as environmentally sound agricultural sector.

This information is specifically intended for consortium development in relation to ICT-AGRI joint calls.

The first ICT-AGRI call is scheduled for launch in spring 2010. The information includes research expertise, facilities, and priorities of relevant institutes, departments and teams.

The data are entered by the ICT-AGRI partners and observers into an online database. The country reports will be available by January 2010 and in online versions on the website derived directly from the database.



Stage 2: Mapping of the ICT-AGRI research area

In stage 2, detailed information will be collected on current research and development projects and teams, publications, products and services. All items will be classified by a common classification system, which is being developed.

The first ICT-AGRI Workshop held in Ghent this October provided a significant contribution to the development of the classification system.

Stage 1: Country reports

The mapping is done in a two-stage process. The first stage is the development of country reports providing information on national funding structures, research programmes and funding bodies relevant for the ICT-AGRI research area.

Additionally, the country reports will provide information about national research institutes relevant to participate in joint European projects.

The information will be collected through the ICT-AGRI website with interactive data entrance forms. Researchers and developers will be invited to provide input.

This will serve two main purposes, firstly as an online resource for researcher and developers to search for information about ICT and robotics in agriculture, and secondly as a means for collecting the data required for the mapping in ICT-AGRI.

Communication & Dissemination by Carina Madsen & Per H. Mogensen (DFIA, DK)

The beacon effect

There are several very good reasons for ICT-AGRI to have a website. But due to the limited space in this newsletter we will just mention one of the most prominent (and in itself reason enough for having a website): *'The beacon effect'*.

To achieve the objectives envisioned by the ICT-AGRI consortium, ICT-AGRI has to become a beacon that collects and organizes information in the area of Information- and Communication Technologies and robotics in agriculture and environment, and transmits it to the research and/or funding communities around Europe.

Our website

The website is an essential tool to achieve this. By providing access to the information 24 hours a day and 7 days a week to everyone with access

to a computer connected to the internet (which is 99.9% of our target group) ICT-AGRI can easily, and to a degree not achievable by any other means, reach the intended target audience.

This means that users can get the information where they need it and when they need it.

When will the website become a beacon?

For obvious reasons the website cannot be the envisioned beacon from day one (how can information be passed on before it has been collected?).

But the beacon is already shining and will shine ever brighter the further the project progresses and more information is added to the website, and the more stakeholders are made aware of its existence.

Visit our website www.ict-agri.eu and sign-up to the newsletter to ensure you are among the first to receive the latest ICT-AGRI news and updates.

The beacon shines

The website is very much alive and doing well. During the first 6 months the website has been visited more than 10,000 times. This equals approx. 50 visits per day. Not bad, taking into account that the one of the most important elements, the database, is not fully implemented yet.

The world is watching...

Even though ICT-AGRI is a European project we are constantly reminded that stakeholders from other parts of the world are watching us. Among others we have had visits from USA, China, India and Iran.

What is a beacon?

A beacon is an intentionally conspicuous device designed to attract attention to a specific location. Beacons can also be combined with semaphoric or other indicators to provide important information, such as the status of an airport, by the colour and rotational pattern of its **airport beacon**, or of pending weather as indicated on a **weather beacon** mounted at the top of a tall building or similar site. When used in such fashion, beacons can be considered a form of **optical telegraphy**. Source: Wikipedia.

New 'Members Forum' on the ICT-AGRI website

The ICT-AGRI website has launched a closed Members Forum to facilitate information sharing and communication between the ICT-AGRI Partners.

The idea behind the Members Forum is to create a 'wall' for ICT-AGRI partners to post documents and we plan to add a discussion board in time.

ICT-AGRI Partners will also find a comprehensive library of documents related to meetings such as agendas, minutes and annexes.



Additionally, documents such as the Grant Agreement and Financial Guidelines will be available for download. In this way any ICT-AGRI document will never be further away than a visit to the ICT-AGRI website!



Meetings

Summary Report from Workshop on mapping of current ICT research and preparation of joint trans-national call, 14-15 October 2009 by Jürgen Vangeyte (EV-ILVO, BE)

How can the existing research on ICT and robotics in agriculture and environmental related issues be mapped and analysed efficiently? On which topics should the future research in this area focus?

To tackle these two important questions 46 participants were invited to ILVO near Ghent in Belgium on 14-15 October 2009.

The first ICT-AGRI Workshop was organised by Work Package 2 (Mapping and analysis of existing research and future needs) and Work Package 3 (Developing instruments and procedures for trans-national funding activities).

On day one, three facilitators coached their workgroup to propose a task oriented framework that could form the basic structure of a knowledge base, containing existing research on ICT-AGRI.

At the end of the day their efforts were rewarded by an excellent dinner

mixed with a guided tour through the small, but beautiful historical city of Ghent.

The second day the workgroups proposed and prioritised topics for future research and this resulted in a short list of possible call topics.

During these two day long sessions, it became clear that the development of a suitable framework to classify relevant research projects is a complicate and delicate task.

Nevertheless, the output of the workshop, namely a new proposal for a framework combining technology with tasks and sub-

tasks, was very useful for the future methods development and mapping exercise.

In addition, the workshop produced a very useful list of research topics that will be used as a basis for the formulation of the topics for the ICT-AGRI joint call which will be launched in 2010.

We would like to thank all participants, experts and ICT-AGRI partners, for their useful and valuable contributions. Thanks to their critical comments, relevant remarks and scientific expertise the workshop was a success.



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News on ICT-AGRI Joint Call 2010

- The first ICT-AGRI joint call will be launched in the spring of 2010
- The ICT-AGRI joint call will be funded by a 'virtual common pot' scheme
- Commitment from the 'fundings' is scheduled for 31 January 2010
- A Memorandum of Understanding and description of the call theme are currently being prepared
- A 2-step application call procedure will be applied (1. pre-proposals, 2. full applications)
- Call announcement and applicant guidance documents will be available from the ICT-AGRI website
- Submission of project proposals will be online from the ICT-AGRI website

Meetings

Technical Innovations for successful Organic Farming are required by Renate Döfler (BLE, DE)

Two panels on the AGRITECHNICA in Hannover, Germany, the world's most important fair for agricultural machinery, discussed technical challenges and solutions of organic farming.

The presentation was carried out within the scope of the Federal Organic Farming Scheme that is supported by the Federal Agency for Agriculture and Food in Germany.

Prof. Dr. Stefan Böttinger, University of Hohenheim, Head of Institute for Basics of Agricultural Engineering, gave a lecture on modern Information and Communication Technologies in Agriculture.

He pointed out that technical innovations in both Organic and Conventional Farming



Christiane Von Haselberg, ATB (DE) speaking on AGRITECHNICA. © ATB

aim at higher energy efficiency and enhanced user-friendliness.

A special issue in organic farming is the availability of specific solutions for weeding, sowing and soil cultivation.

Dr. Martin Haensel from the Saxon State Ministry of the Environment and Agricul-

ture stated that new systems are required. He emphasized the need for the development of machines that operate failure-free in mulch layers.

At present organic farmers often depend on their own initiative, because Information and Communication Technology is costly.

The German farmer Christoph Müller presented a computer-based irrigation control for hilly areas developed on his own. However, the farmer cannot tackle all technical problems by himself.

A close cooperation between farmer and researcher is important to achieve effective solutions.

67th International Conference Land.Technik-AgEng 2009 by Stefan Schülz (BMELV, DE)

The 67th conference "LAND. TECHNIK - AgEng 2009" took place in Hannover on November 6th and 7th. It was a prelude to AGRITECHNICA, the world's most important fair for agricultural machinery, which started on November 8th.

The international conference was organized in cooperation with the "Max Eyth Society for Agricultural Engineering" (VDI-MEG), a technical decision of the VDI, and the European Society of Agricultural Engineers (EurAgEng).

The theme "Innovations to meet future challenges" should emphasize the importance of agricultural technology in dealing with future demands for the satisfac-

tion of basic needs, especially the sufficient production of food and energy. Finding adequate strategies to meet current and future requirements will be a great challenge, particularly considering the turbulence in the global sales and financial markets.

The conference offered presentations of the latest innovations, machine developments, and technical concepts and methods as a foretaste of the AGRITECHNICA.

The technical lectures were framed by three plenary presentations.

The conference was an excellent meeting point to discuss the possibilities of addressing future global challenges together.

The conference was attended by 650 participants. The presentation of ERA-NET ICT-AGRI within the frame of the FP7 was of topical interest for the audience.

LAND. TECHNIK
AgEng 2009
Innovations to meet
future challenges

Meetings

Governing Board & Network Management Meetings, St. Julians, Malta, 19-20 November 2009 by Carina Madsen (DFA, DK)

Members of the Governing Board spent 2 days discussing mapping methods, topics and commitments for the first ICT-AGRI call.

The first ICT-AGRI Governing Board meeting was held in St. Julians on Malta 19-20 November 2009. The main purpose of the meeting was to discuss and decide on several issues related to the mapping and call processes.

The mapping exercise is well under way and the work package has made a large progress in a short period of time.

Partners are currently entering their national data in a database, which will be open for data entry until 15 December 2009.

This information compilation will serve as the basis for country reports on the ICT-AGRI landscape in the participating countries.

In addition to the partner countries also ICT-AGRI observer organisations are invited to provide data for the mapping. The first step of the mapping is planned to be finalised by the end of January 2010 with the publication of country reports.

In the meantime, preparations of the second step of the mapping process, which includes a classification system and a questionnaire survey among researchers, has already begun.

During 2010, ICT-AGRI plans to launch the first joint call for projects on topics of

mutual interest between the cooperating European countries.

It was decided that the call will be funded by the virtual common pot funding instrument and a memorandum of understanding for the ICT-AGRI joint call between funding partners is being prepared.

The call topics will be broad enough to ensure that all partner countries will have their interests covered. At the meeting, many partners announced that they already have or expect to confirm their commitment very soon to participate in the first ICT-AGRI joint call.

More information on the mapping results and information regarding the 2010 joint call will soon be announced on the ICT-AGRI website: www.ict-agri.eu



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The ICT-AGRI Secretariat is situated at the Danish Food Industry Agency, Ministry of Food, Agriculture and Fisheries in Copenhagen, Denmark.

The secretariat has the overall responsibility and day-to-day management of the project



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Left to right: Niels Gätke (Coordinator), Per Mogensen (Financial Administrator), Carina Madsen (Project Manager) and Iver Thysen (Scientific Advisor).

ICT-AGRI Partners & Observers

There are 18 partners and 14 observer organisation involved in the ICT-AGRI ERA-NET covering 21 countries.

Partners

1. Ministry of Food, Agriculture and Fisheries, Danish Food Industry Agency (DFIA), Denmark
2. Ministry of the Environment, Danish Environmental Protection Agency (DEPA), Denmark
3. Ministry of Agriculture of the Flemish Community, Institute for Agricultural and Fisheries Research (EV-ILVO), Belgium
4. Ministry of Agriculture and Forestry (MMM), Finland
5. CEMAGREF Technical Centres Development (CEMAGREF), France
6. Federal Agency for Agriculture and Food (BLE), Germany
7. Federal Ministry of Food, Agriculture and Consumer Protection (BLEV), Germany
8. Greek Research and Technology Network (GRNET), Greece
9. Ministry of Agriculture and Rural Development (MARD), Israel
10. Ministry of Agriculture, Food and Forestry Policies (MiPAAF), Italy
11. Latvian Academy of Sciences (LAS), Latvia
12. Malta Council for Science and Technology (MCST), Malta
13. Swiss Federal Office for Agriculture (FOAG), Switzerland
14. Ministry of Agriculture and Rural Affairs, General Directorate of Agricultural Research (GDAR), Turkey
15. Scientific and Technological Research Council of Turkey (TÜBİTAK), Turkey
16. Netherlands Organisation for Applied Scientific Research (TNO), Netherlands
17. Agriculture and Food Development Authority (TEAGASC), Ireland
18. Region of Murcia Agency of Development (INFO Murcia), Spain

Observers

1. Leibniz-Institute for Agricultural Engineering Potsdam-Bornim (ATB), Germany
2. National Institute for Agricultural Research (INRA DARESE), France
3. Food and Agricultural Organization of the United Nations (FAO), Italy
4. Region of Lombardia (ROL), Italy
5. Cities on Internet Association (COIA), Poland
6. Romanian Academy of Agricultural and Forestry Sciences (ASA), Romania
7. Soil Science and Conservation Research Institute (SSCRI), Slovakia
8. Instituto Tecnológico Agrario de Castilla Y Leon (ITACYL), Spain
9. LEITAT Technological Center (LEITAT), Spain
10. Swedish Institute of Agricultural and Environmental Engineering (JTI), Sweden
11. Federal Department for Economic Affairs (DEA), Switzerland
12. Department for Environment, Food and Rural Affairs (DEFRA), United Kingdom
13. Agricultural Research Institute, (ARI) Cyprus
14. Wageningen University (WUR), The Netherlands

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- Verification of Environmental Technologies for Agricultural Production—VERA
- ManuFuture