

# Bioeconomy ERA-NET Actions

Publication of PLATFORM of Knowledge Based Bioeconomy relevant ERA-NETs (FP7 grant 288422) European Research Area Networks of the 6th and 7th Framework Programmes

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## **Bioeconomy ERA-NET Actions**

European Research Area Networks of the 6th and 7th Framework Programmes

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PLATFORM

Platform of Knowledge Based Bioeconomy relevant ERA-NETs 👥 🗌

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## Foreword

Robert-Jan Smits General Director of DG Research and Innovation, European Commission

The Europe 2020 Strategy of the European Commission calls for a bioeconomy as a key element for smart and green growth in Europe, especially in the context of the current economic difficulties facing Europe. The Commission sees in the bioeconomy a convergence of opportunities and objectives: a smart use of our biological resources from land and seas; a low-carbon, resource efficient economy; a reindustrialisation of Europe, based on innovation and the latest scientific knowledge; food security for all; and the development of new jobs and new sources of economic growth, not least in rural and maritime regions.

In February 2012 the Commission adopted a strategy to help Europe move towards a food-secure more sustainable, post-petroleum society based upon a true bioeconomy. A key component of the strategy is reconciling the use of renewable resources from land and sea, transforming waste into valuable resources, the production of food, feed, bio-based products and bioenergy, all the while ensuring environmental protection. The bioeconomy thus contributes significantly to the objectives of the Europe 2020 flagship initiatives "Innovation Union" and "A Resource Efficient Europe". At EU level the European bioeconomy is already worth two trillion euros and provides 22 million jobs and has the potential to reinvigorate communities in some of our most peripheral and deprived areas.

Strategic Programming between Member States in the form of Joint Programming activities in the areas of agriculture, forestry, fisheries, aquaculture and bio-based industries - the sectors that make up the bioeconomy - is one of the strongest in Europe in terms of national research programme coordination. In this respect, a robust network of Member States coordination activities aimed at increasing research collaboration between funders and programme managers on keyresearch areas has been developed over the past ten years.

Within this cooperative landscape, ERA-NET ACTIONS (ERA-NETs) are recognised as a success story of the 6th and the 7th Framework Programmes for Research and Technological Development (RTD). They have contributed to the realisation of the European Research Area (ERA) by improving the networking of funding authorities and the mutual opening of research programmes conducted at national or regional level.

Indeed more than 30 ERA-NET projects under FP6 and FP7 have been funded. In addition, three Joint Programming Initiatives (JPI-FACCE "Agriculture, Food security and climate Change" – JPI HDHL "Healthy Diet for a Healthy Life" – JPI Oceans) were launched to help countries define and implement common strategic research agendas based on a common vision of how to address major societal challenges related to climate change, food security, food and health, and maritime research. In parallel, triggered by the Standing Committee on Agricultural Research (SCAR), more

than 20 collaborative/strategic working groups have been set up by European countries to jointly tackle priority research topics.

I would like to stress that ERA-NETs are only the beginning of our journey towards a research and innovation area without borders. By going further than ERA-NETs, which coordinate existing programmes 'ex-post', Joint Programming Initiatives (JPI) are integrating the effort of several countries in previously unimagined endeavours. By working together from the start of programming cycles, Member States will align their national research programmes to better implement strategic research agendas and ideally mesh with the goals of Horizon 2020, our new seven-year research and innovation programme.

The PLATFORM project has brought together information about all these ERA-NETs in an open learning environment to share good practices and common research activities.

This publication is very timely in that it provides a comprehensive and detailed overview of all the on-going bioeconomy-related ERA-NET actions. It is a useful monitoring tool for assessing the results of the various activities undertaken, from early mapping to final joint calls and their potential for further improvements. I am pleased to see such coordination of national programmes working to help ensure a coherent research agenda to support the EU's European Bioeconomy Strategy.

I look forward to the final outcome of the PLATFORM project with its expected delivery in 2014 of a Vision Paper and a Roadmap, which will provide further guidance for the development of Horizon 2020 and on how to maximise the leverage, synergies, efficiency gains and structural improvements needed to underpin the ERA in the bioeconomy.

Robert-Jan Smits



## Introduction

## The ERA-NET Scheme

More than 90% of the EU publicly funded research is conducted at national or regional level. The ERA-NET scheme has been developed by the European Commission to overcome the fragmentation and duplication of research efforts. Operating within the Commissions' Framework Research Programmes (FP6 and FP7), ERA-NET has promoted the networking of national and regional research programmes with a view to stimulating the exchange of best practice, the pooling of ideas and resources, and the development of joint transnational research activities.

ERA-NET actions help strengthen the ERA by providing common answers to shared problems. The objective is to develop and strengthen the coordination of public research programmes conducted at national or regional level. This is done by encouraging programme owners and managers of national or regional research programmes in Europe to explore joint activities, strategy development, and joint calls for transnational research. Therefore, programme owners and managers (typically national ministries, regional authorities, research councils and funding agencies) are considered eligible partners in an FP6/7 ERA-NET action.

ERA-NET now involves hundreds of national research programmes and more than 1 000 programme owners and managers. It is part of Community action to integrate, strengthen and structure the European Research Area (Figure 1). The scheme aims to improve coordination and effectiveness of national research efforts and its targeted at national ministries, regional authorities and the funding agencies which implement programmes on behalf of their governments. In addition to the exchange of ideas and good practice in programme management it enables research bodies across Europe to jointly undertake tasks that they would not be able to do independently.



Figure 1. The five priorities of the European Research Area.

#### Efficient call planning and implementation

Since 2006 the ERA-NET EUROTRANS-BIO (later ETB-PRO) launches each year one call. The call process is identical since the 4th call, so that SMEs are highly familiar to it, they e.g. are aware of the regular deadline for submission of the proposals. Calls are always launched in October, with a submission deadline end of January and a funding recommendation in June. The time between submission deadline and funding recommendation is rather short (5 months) due to a solely internal evaluation procedure. The whole process, from the start of the call until funding recommendation needs less than one year (10 months), which is, especially in the field of R&D funding important: SMEs need reactive funding initiatives to develop their innovative technologies rather quickly, e.g. before competitor have the same product idea.

The application process is deliberately simple, the sole submission of a single proposal is sufficient. The workload is therefore reduced for applicants compared to many other initiatives and is more attractive for SMEs.

Under the Sixth Framework Programme ERA-NETs were funded through an open call published at the start of FP6 with five subsequent closure dates between June 2003 and October 2005. It was a 'horizontal' activity under the specific programme integrating and strengthening the foundations of the European Research Area. In total 71 ERA-NETs have been funded under FP6 and the total funding ERA-NETs have received for coordination was EUR 185 million. Many of the ERA-NETs were preceded by a short Specific Support Action in which the ERA-NET was prepared. In these preparation projects of usually one year, typical activities were a preliminary mapping of the research landscape and extending a nucleus of collaborating funding organisations to a larger group of partners from more countries to be engaged in the ERA-NET itself.

An ERA-NET typically addresses four, stepwise, processes. The initiatives usually start with a systematic exchange of information and good practices. The work proceeds with identification and analysis of common strategic issues. Building on these processes, planning and development of joint activities is undertaken. And, finally, joint research is implemented, usually through transnational calls, generating research outputs. The text boxes in the introduction highlight in what way ERA-NETs further strengthen their impact, for example by optimizing the efficiency of organising calls, by building collaborations with partners beyond Europe, or by working together with another Network to develop a call that is interdisciplinary between the two ERA-NET themes. The instrument proved a huge success and exceeded expectations. Almost all FP6 ERA-NETs realized the launching of joint calls thereby increasing coordination and collaboration in Europe's public funding.

Under the Seventh Framework Programme which commenced in 2007, the ERA-NET scheme was no longer a 'stand-alone' action and has been developed into an implementation tool for supporting the strategic areas identified through dialogue with Member States. The ERA-NET scheme continued to bolster its support to structuring the European Research Area and enhancing the scale of Europe's research eff orts by supporting three different type of actions:

- Coordination Actions for new ERA-NET actions on topics not yet coordinated between Member
  States or for existing actions wishing to broaden and deepen their scope;
- ERA-NET Plus actions actions which receive additional EU financial support to facilitate joint calls for proposals between national and/or regional programmes;
- Specific Support actions actions which contribute to the implementation of FP7 and preparation of future Community research.

As before, the ERA-NETs provide a coordination framework for actors implementing public research programmes e.g. by developing joint activities or by mutually supporting joint calls for trans-national proposals. Under FP7 a total of 82 ERA-NET actions are funded: 31 of the initial FP6 contracts received further funding and 51 ERA-NETs started under FP7 on topics that were not covered formerly. ERA-NET Plus, brand new under FP7, provides, in a limited number of cases with high European added value, additional EU financial incentive to national and regional research funding programmes that pool financial resources in joint calls for proposals. The ERA-NET Plus follows the 'rules of five: a minimum of five participants from five different Member or Associated States; a joint call of at least five million euros; a maximum duration of five years. A total of 23 ERA-NET Plus actions are funded. The Community top-up funding of calls implemented by these Plus actions sums up to around EUR 154 million. A similar amount of budget is used for coordination for the period 2007-2013. Annex 1 provides a list of all ERA-NET Plus actions categorised over themes.

Specific Support Actions that contribute to the implementation of Community research and that specifically address Public-to-Public collaboration include the following actions. NETWATCH, for development of a central information platform for ERA-NETs under ERAWATCH; ERA-LEARN, the learning net for all ERA-NETs that gives courses and builds tools for general use, JPIs TO CO-WORK, a process of mutual learning towards a common adoption of framework for Joint Programming Initiatives, and PLATFORM, the forum for networking, mutual learning and overarching strategic issues for the bioeconomy relevant networks.

For further reading on ERA-NET the NETWATCH site http://netwatch.jrc.ec.europa.eu and the EC pages on ERA-NETs http://ec.europa.eu/research/era/era-net\_en.htm provide good starting points. The source of the statistical data in this introduction is the annual report on ERA-NET, ERA-NET Plus and JPIs and their joint calls which can be downloaded from the EC site.

#### International collaboration

ERA-NETs provide the opportunity for easy access of international funding agencies to participate in transnational calls thus strengthening transatlantic/international research coordination. In the KBBE theme currently two models are explored:

- 1. In July 2013, the National Science Foundation (USA) and the ERA-CAPS Consortium signed a Memorandum of Understanding to coordinate funding activities in the field of plant science. The NSF organised a Program Solicitation in parallel with the ERA-CAPS joint call for proposals. Hence, US partners were enabled to set up or join transnational research consortia applying to the first ERA-CAPS call. More information at: http://www.eracaps.org
- 2. In ERASynBio the National Science Foundation (USA) is a full partner of the call group of the 1st joint call, possessing identical rights and obligations as the European partners. This means in detail that only one common call was launched and all partners agreed on a common set of call documents, submission and evaluation process. Further details can be found at: http://www.erasynbio.eu/

#### The European Bioeconomy

The bioeconomy encompasses the production of renewable biological resources and their conversion into food, feed, bio-based products and bioenergy. It includes agriculture, forestry, fisheries, food and pulp and paper production, as well as part of chemical, biotechnological, and energy industries. The importance of the bioeconomy in Europe cannot be underestimated. With an annual turnover of around two trillion euros and employing around 22 million people, it is already one of the Union's biggest and most important sectors.

The bioeconomy provides mankind with the means to maintain our current lifestyle while using renewable and environmental friendly resources. It offers Europe a unique opportunity to address complex inter-connected challenges, while achieving economic growth. The bioeconomy can assist Europe in making the transition to a more resource-efficient society that relies more strongly on renewable biological resources to satisfy consumers' needs, industry demand and tackle climate change.

The bioeconomy realm has many different areas in which reducing fragmentation and increasing synergies will contribute to spending the scarce research funds more effectively. Various ERA-NETs (Figure 2), each in a specific field or discipline, work to enhance the impact of research through coordination and collaboration among national and regional programmes.



#### Figure 2. ERA-NETs mapped on the Bioeconomy globe.

Main areas of the bioeconomy and drivers (Source: The European Bioeconomy in 2030. Delivering Sustainable Growth by Addressing the Grand Societal Challenges) with ERA-NETs mapped in the area of their focus.

#### **Bioeconomy Relevant ERA-NET Actions**

Within FP7, the KBBE (Knowledge Based BioEconomy) Theme supported a broad area including food, agriculture, fisheries and the bioeconomies. This theme is home to most of the bioeconomy-relevant ERA-NETs. All FP7 KBBE ERA-NETs and the FP6 ERA-NETs in the same research areas are featured in this book. Furthermore, some of the other FP7 Themes address topics that can be considered as part of the bioeconomy area, including some ERA-NETs. This book also includes information about these 'neighbouring' ERA-NETs in order to provide a full overview of bioeconomy-relevant ERA-NETs. In total 24 FP7 ERA-NETs actions are described in the book. For a quick reference overviews see Figure 3, Annex 2 and Annex 3.

The format for the descriptions was inspired by the FP6 ERA-NET Synopsis series (available on the Commissions' website). As first sources of the information the CORDIS website, NETWATCH, and the websites of the individual ERA-NETs were used. ERA-NET coordinators or managers completed and updated the information compiled by the PLATFORM Office. Each contribution includes the acronym and title, project duration, coordinator, consortium, and a summary of the topic and objectives. On top of these facts about the network of funders, the ERA-NET descriptions in this book give a wealth of information about the joint calls that they launched. Call scope, budget and response are usually included, together with lists of all funded projects. A web version of this book will be made in 2014 including updates on new calls and new projects funded. It is through the joint calls that fund transnational research projects, and through other coordination activities, that the ERA-NET actions make a large contribution to underpinning the transitions towards a more sustainable, resilient, and prosperous European Bioeconomy. You are invited to browse through the pages, look through the lists of funded projects and read about the achievements of the networks.

#### Common calls

Amongst others ERA-IB implemented a common call with ETB-PRO in 2013 (17 funding organisations out of 13 countries) and BIOENERGY with WOODWISDOM-NET in 2011 (total public funding EUR 18.5 million, 19 funding organisations out of 13 countries). The main benefit for the participating ERA-NETs was the higher flexibility due to the participation of more funding agencies. The projects benefit from the broader coverage of themes and countries thus making it easier to form consortia. In general this measure increased the overall impact of the specific call.



#### Figure 3. Overview of ERA-NET and ERA-NET Plus actions featured in this book.

FP6 ERA-NET actions in blue, FP7 ERA-NET actions in green and ERA-NET Plus actions in orange. Continuations are placed after their predecessor.



From 2012-01-01 2014-12-31

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FP7-KBBE

€ 599 355

€ 499 424

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KBBE 2011 4-01

Networking of KBBE relevant ERA-NETS

Wageningen UR (University & Research

centre) WUR, The Netherlands

Coordination (or networking) action

## PLATFORM

#### Platform of Knowledge Based **Bioeconomy Relevant ERA-NETs**

# **PLATF©RM**

## **Objective**

The FP7 project 'Platform of Knowledge Based Bioeconomy relevant ERA-NETs' brings together the coordination initiatives in the area of food, agriculture, fisheries, aquaculture, forestry, climate, biodiversity, and biotechnologies, with the aim to improve exchange and cooperation and to strengthen their impact on the ERA and the European bioeconomy. Workshops are key facilitating events towards these aims and the outcomes feed into a roadmap that PLATFORM will deliver in 2014.

## Consortium

The PLATFORM project consortium consists of experienced coordinators of those ERA-NET actions that are funded under FP6 or FP7 by the food, agriculture and fisheries and biotechnologies Theme. The partners are committed to fuel networking, mutual learning, and exchange for a wider set of initiatives, including neighbouring ERA-NETs, JPIs, and working groups of SCAR. The concept is that network coordinators and other delegates that contribute to surveys and participate to workshops of the PLATFORM project act as linking pins. Thus outreach and impact of the platform benefits a broad community.

## Networking and mutual learning

A lot of experience has been built since the

#### PROJECT DETAILS

Period Project reference Programme acronym Tonic identifier Title Contract type

Total cost EU contribution

Number of participants

Coordinator

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#### Website Participants

- AT Federal Ministry of Economy, Family and Youth BMWFJ
- Agency for Renewable Resources FNR DE
- DE Jülich Research Centre JUELICH
- DK Ministry of Science, Technology and Innovation Danish Agency for Science, Technology and Innovation DASTI
- DK Aarhus University AU-ICROFS
- FI Finnish Funding Agency for Technology and Innovation TEKES
- FR Foundation for Research on Biodiversity FRB
- Ministry of Economic Affairs EZ NL
- Wageningen UR (University & Research centre) WUR NI
- NO Nordic Innovation Centre NICe
- UK Biotechnology and Biological Sciences Research Council BBSRC
- UK Department for Environment Food and Rural Affairs DEERA

ERA-NET scheme started, so new coordination networks do not need to reinvent the wheel and new colleagues do not have to start from zero. Through PLATFORM the actors are networked and interactive dialogues facilitate mutual learning, for example on effective and costefficient call management. After an inventory of practices and of learning demands, a customized workshop was organised for call secretariat officers. Another matter that the ERA-NETs tackle best together is the analysis of costs and benefits of joint calls and assessments of other impact indicators for evaluating the success of their work in coordination and collaboration between national programmes. Positioning of an ERA-NET action in relation to other coordination initiatives and to other type of networks is another commonality for overarching discussions. Existing and potential coordination among Member State public-topublic initiatives (ERA-NET, ERA-NET Plus, JPI, Art 185, SCAR WGs) is mapped and matchmaking organised. PLATFORM also looks into linkages with private sector driven technology platforms, scientists driven research alliances, and the EIP on agriculture to bridge science, innovation and practice.

#### **Inspiration and Impact**

PLATFORM organises inspiring and animated workshops. Briefing documents and expert and case introductions facilitate well-informed discussions of which outcomes are reported. The legacy of this process is a set of recommendation documents for the ERA-NET community and environment, for example on call management, cost/benefit indicators and collaboration of ERA-NETs and other stakeholders. Some activities are co-organised with ERA-LEARN and JPIs TO CO-WORK, to make the most of the synergies. The potential impact includes fast-track progress of new ERA-NETs, more collaborations between coordination networks, more coherence of strategies and practices, a higher visibility and appreciation of collaboration between Member States, and stronger links between national programming and European-scale coordinated programming.

## **Meetings**

#### 2012

- 1-2 February. Kick-off Project Meeting, The Hague.
- 16 May. Theme workshop "Cost benefit of ERA-NETs", organised for by WP3 and ERA-LEARN for KBBE ERA-NETs, Berlin.
- 26 June. Interim Project Meeting, Copenhagen.
- 26-27 June. PLATFORM First Annual Workshop, Copenhagen.

#### 2013

- 14 March. Interim Project Meeting, Dublin.
- 18-19 April. PLATFORM Second Annual Workshop: ERA-NETs in Actions and Interaction, Paris.
- 17-18 June. Master Class on Call Management, Brussels.

#### 2014

- 15 January. Interim Project Meeting, Brussels.
- 13-14 February. PLATFORM Third Annual Workshop: ERA-NETs for the Future, Leiden.
- Date to be decided. Workshop co-organised with the European Innovation Partnership 'Agricultural Productivity and Sustainability'
- October. Closing Project Meeting, Turin.



# **FP6 ERA-NET Actions**

European Research Area Networks of the 6th Framework Programme



## ACENET

**Objective** 

#### **Coordination and Cooperation in** the Field of Applied Catalysis



Applied catalysis is one of the fundamental pillars of green chemistry: the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances.

More than 80% of the processes in the chemical industry depend on catalytic technologies. The design and application of new catalysts and catalytic systems are simultaneously achieving the dual goals of environmental protection and economic benefit.

They have been ubiquitous enabling technologies behind significant economic growth in recent years and are involved in products ranging from the hydrogenisation of oils and fats, catalytic cracking, plastics and polymers, petrochemicals to low temperature laundry products etc. The catalytic process and technology markets amount to some EUR 15 billion.

Applied catalysis and new catalytic technologies will be very important for the sustainability and cost-efficiency of products and processes. They offer benefits such as clean, low hazard, waste free manufacturing of chemicals, polymers and pharmaceuticals, the utilization of biomass and recycled materials, low energy household products, food manufacturing etc.

The ACENET ERA-NET brought together the most important European national programmes and funding schemes in this field. The objective was

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Follov ERA-I		CAPITA		
Proje	ct reference	11784	1	
Progr acron	amme Iym	FP6 CC	OORDINATION	
Call i	dentifier	ERA-N	ET/1/CA-SSA-B	
Title		Coordination and cooperation in the field of applied catalysis – ERA-NET for applied catalysis in Europe		
Contract type Coordination Action			nation Action	
Total cost EU contribution		€ 2 710 000 € 2 706 403		
Number of participants		12		
Coordinator		Netherlands Organisation for Scientific research NWO, The Netherlands		
Contact person		Nico Kos T +31 70 344 06 96 E capita@nwo.nl		
Website		www.acenet.net; www.era-capita.eu		
Participants				
DE DE FS	Federal Ministry of Education and Research BMBF Jülich Research Centre JUELICH Ministry of Science and Innovation MICINN			
FR	National Centre for Scientific Research CNRS			

- National Centre for Scientific Research CNRS FR
- GR General Secretariat for Research and Technology GSRT
- ΙE Research Council for Science, Engineering and Technology IRCSET
- IT Ministry of Education, Universities and Research MIUR-CIRCC
- NL Netherlands Organisation for Scientific Research NWO
- PL Ministry of Science and Higher Education MSHE
- PL Institute of Catalysis and Surface Chemistry of the Polish Academy of Sciences ICSC PT Foundation for Science and Technology FCT
- UK Engineering and Physical Sciences Research Council EPSRC

to jointly bring a transnational dimension and greater coherence between the various national research programmes and policies.

#### Consortium

The consortium consist of 12 partners from 10 countries.

## Mapping and scoping activities

The four year ERA-NET project was launched in 2004 to develop a coherent vision and strategy for applied catalysis focused on industrial innovation.

It seeks to identify the gaps and requirements in knowledge and technology, develop a strategy to effectively address these challenges and, finally, to promote pan-European implementation of potential solutions.

As part of its work programme the ACENET ERA-NET has set out to:

- integrate processes between the national research funding organisations, as a result of sharing good practice and infrastructure;
- increase efficiency in research by promoting interdisciplinary knowledge-sharing;
- provide a framework for the education and qualification of young scientists following an inventory of real and genuine training needs.

It aims to achieve this through:

- the systematic exchange of information and good practices;
- common agreement on, and joint implementation of, efficient and effective joint management processes, mechanisms and procedures;
- coordination and cooperation between existing research programmes;
- the formulation and establishment of new transnational research programmes and initiatives;
- the development of the necessary tools

and activities for communication and information exchange;

the development of a framework for a European education and training programme.

The important next phase for ACENET was to analyse available roadmaps and define possible technology and scientific gaps, and identify approaches to solutions. The consortium submitted a new ERA-NET project under the NMP work-programme of the European Commission Framework Programme 7 (FP7). The overall aim of the new project was to enhance and better structure coordination and cooperation between innovation-driven research programmes in the area of applied catalysis and related sustainable chemical research. This project was successfully evaluated and initiated under the name CAPITA ERA-NET and can be seen as the continuation of ACENET.

## Joint calls

## First call 2007

Pilot call

The pilot ACENET call for research proposals, indicating the outcome of the integration for more than three years between eight European National Funding Agencies in this area was launched in May 2007 focusing on applied catalysis and, in particular, on 'Innovative, Sustainable Catalytic Processes with Improved Energy and Carbon Efficiency'.

Six research projects were selected. More than EUR 4.5 million of national funding has been made available to these projects during their three-year duration. Moreover, ACENET handed over to CAPITA ERA-NET a well defined framework of calls for proposals, already benchmarked and agreed by 12 of the most important European stakeholders of the field.

Projects funded:

 AL2OL - Alkanes to Light Olefins via Novel Catalysts and Process Schemes. Coordinator: Technische Universität München, Departement Chemie, Germany. Participating countries: Germany, Greece, Spain.

- 2. HECA BIO Heterogeneous Catalysis for the Conversion of Solid Biomass into Renewable Fuels and Chemicals. Coordinator: Laboratory of Environmental Fuels and Hydrocarbons, Chemical Process Engineering Research Institute, centre for Research and Technology Hellas, Greece. Participating countries: Greece, Spain, France, The Netherlands.
- 3. METACOOR Methane Activation as a Route to CO2 Remediation: The Integration of Dry Reforming into Fischer-Tropsch Fuel Production Plants. Coordinator: ESCPE Lyon, CNRS, France. Participating countries: France, Germany, Spain.
- NUCAT 4HYDROGEN Hydrogen from Bio-Alcohols: An Efficient Route for Hydrogen Production via Novel Reforming Catalysts. Coordinator: Foundation for Research & Technology-Hellas, institute of Chemical Engineering & High Temperature Chemical Processes. Participating countries: Greece, Poland, Spain.
- SIPROHY M SImultaneous PROduction of HYdrogen and C2 Hydrocarbons in Solid Oxide Membrane Reactors. Coordinator: Chemical Process Engineering Research Institute, Centre for Research & technology Hellas, Greece. Participating countries: Greece, The Netherlands, Spain, Portugal.
- 6. SUBACA Catalysis by Regenerable Super Bases. Coordinator: Institut de recherches sur la catalyse et lénvironnement de Lyon, Villeurbanne, France. Participating countries: France, The Netherlands, Spain.

## Training and education

Another main target of ACENET ERANET has been to set up a framework and describe the content of a Training and Education Programme which would cover the educational needs of the European Research Area in the field of Applied Catalysis. The main concept was to base Applied Catalysis Training and Education Programme on the existing training possibilities and to develop new modules as well. This approach resulted in establishing a high level Programme which addresses needs of researchers aiming in developing academic career as well as researchers interested in industrial or entrepreneurial career.

The pilot implementation of the Applied Catalysis Training and Education Programme has taken place in four important events:

- Integrated Course on Catalysis in Poland, organised by the Institute of Catalysis and Surface Chemistry, Krakow, 26th – 30th March 2007.
- Industrial Catalytic Processes course organised by the University of Bath on April 2007.
- School on Applied Catalysis entitled "Characterization of catalysts: a key step in the development and utilisation of innovative catalytic systems" that has been in Bari on June 3rd – 9th, 2007
- CLEAR summer school in Catalysis, held by EFCATS and ACENET under the auspices of CERTH, IDECAT and ERIC has been held on May 24 - 29, 2009, in Chalkidiki, Greece.





## **BiodivERsA**

#### An ERA-NET in biodiversity research



#### **Objective**

At the time when BiodivERsA was planned. many scientists and international bodies, such as the Convention on Biological Diversity, the International Union for Conservation of Nature or the Millenium ecosystem assessment. considered that the rate of species extinctions was accelerating. There is now clear evidence that the rates of extinction of biological species are dozens to hundreds of times the normal background rates.

The potential impacts of biodiversity loss on ecosystem functioning are likely to have indirect impacts on the capacity of natural and managed ecosystems to deliver ecological goods and services, such as food and fibre, carbon storage, soil fertility, nutrient cycles and resistance to environmental change as, for instance, climate change. Several reviews published in the last years support this likeliness, stressing that such losses, often incurred by human activities (habitat loss or disturbance, shifts in land-use, introduction of invasive species, etc.) will reduce nature's ability to maintain ecological status and ecosystem services. Furthermore, there is growing evidence that in addition to cultural and ethical values, the biological diversity and abundance of species is a major factor impacting processes and services that directly affect humanity. The loss of biodiversity and ecosystem degradation therefore constitutes a major scientific and societal challenge of our times.

#### PROJECT DETAILS

#### Period

	10 2010 01 30
Follow-on ERA-NET	BiodivERsA2
Project reference	517836
Programme acronym	FP6-COORDINATION
Call identifier	ERA-NET/1/CA-SSA-C
Title	An ERA-NET in biodiversity research
Contract type	Coordination (or Networking) Action
Total cost EU contribution	€ 2 837 440 € 2 837 440
Number of participants	19
Coordinator	French National Institute for Agricultural Research INRA, France
Contact person	Xavier Le Roux T +33 631803820, E xavier.leroux@fondationbiodiversite.fr
Website	www.biodiversa.org

From

2005-05-01 2010-04-30

- Participants
- AT Austrian Science Fund FWF
- RF Federal Public Planning Service Science Policy BELSPO
- DF Project Management Agency – part of the German Aerospace Centre PT-DLR
- FF Estonian Science Foundation ETF
- FR French National Institute for Agricultural Research INRA
- FR Foundation for Research on Biodiversity FRB
- FR National Agency for Research ANR
- FR Department of Ecology, Energy, Sustainable Development and Spatial Planning MEEDDAT
- HU Ministry of Environment and Water MEW
- IF Environmental Protection Agency EPA until October 2006
- IT Ministry of Education. University and Research MIUR NI
- The Netherlands Organisation for Scientific Research NWO
- NO Research Council of Norway RCN
- NO European Science Foundation ESF PT Foundation for Science and Technology FCT
- Ministry of Science and Innovation MICINN ES
- Swedish Research Council for Environment, Agricultural SF Sciences and Spatial Planning FORMAS
- SE Swedish Environmental Protection Agency SEPA
- SE Swedish Research Council VR
- UK Department for Environment, Food and Rural Affairs DEFRA
- UK Natural Environment Research Council NERC

In order to address these challenges, adequate financial resources must be allocated to national and European biodiversity research programmes. In addition to the volume of investment, efficient transnational cooperation and joint actions are needed to integrate biodiversity science at national and international levels, which are often the relevant scales at which these issues need to be addressed.

BiodivERsA contributes to creating synergies between teams working on similar topics, thus avoiding any duplication of effort. This is a gradual and continuous process, through which competitive research consortia can emerge and succeed better in the international context.

#### Consortium

All partners in BiodivERsA have a national or regional responsibility for funding biodiversity research. In the consortium 15 European Union member states and associated countries are represented through 21 partner organisations.

#### Mapping and scoping activities

The identification of priority thematic areas for collaboration in research on biodiversity was a strategic step in the development of this ERA-net. This activity laid the groundwork for defining the topic of a joint call agreed within the BiodivERsA consortium. Priority areas for research on biodiversity carried out in the developing countries were also identified.

In addition, the BiodivERsA partners have established a searchable, internet-based database giving access to information on the majority of EU, national and regional funding programmes and funded projects for biodiversity research. The database is freely accessible by the public. The development of this tool implied work for gathering information in the appropriate format, as well as significant work on biodiversity science classification, in order to enable analysis of the data. This database allows scientists and managers to search funding sources and provides a fair view of the biodiversity research landscape in Europe.

This ERA-net created synergies, collaborative working and achieved fruitful convergence through building trust and developing a mutual culture between partners. It also allowed funding agencies to collate existing activities, compare future strategies and systematically explore areas of opportunity for future collaboration. This effort contributes to implementing the EU Biodiversity Strategy and to addressing crucial scientific issues to manage and conserve biodiversity.

#### Joint calls

#### First call 2008

The BiodivERsA Pan-European call for international research projects on "Biodiversity: linking scientific advancement to policy and practice" addressed the three following themes (across all ecosystems and organisms):

- Global change and biodiversity dynamics
- Ecosystem functioning
- Ecosystem services

The budget was EUR 14.2 million.

Projects funded:

- BeFoFu European Beech Forests for the Future Ecological, economical, and policy analysis of beech forest conservation under the Natura 2000 Network. Coordinator: Albert-Ludwigs-Universität Freiburg (Germany). Participating countries: Germany, United Kingdom, France, The Netherlands, Austria
- 2. BioMarks Biodiversity of Marine Eukaryotes. Coordinator: National Centre for Scientific Research, Station Biologique de Roscoff (France). Participating countries: France, United Kingdom, Spain, Norway
- Climigrate Integrating Ancient DNA and Ecological Modelling to Quantify the Impact of Climate Change on Biodiversity. Coordinator: School of Biological Sciences, Royall Holloway University of London (United Kingdom). Participating countries:

United Kingdom, Sweden, Norway

- CLIMIT CLimate change impacts on Insects and their MITigation. Coordinator: Helmholtz Centre for Environmental Research – UFZ (Germany). Participating countries: Germany, United Kingdom, France, Sweden
- 5. CoForChange How, why and where will tree species survive increasing pressure: providing diagnosis and decision-making criteria to attenuate the effect of global change on biodiversity in the Congo basin forests. Coordinator: Centre for International Cooperation in Agronomic Research for Development CIRAD (France). Participating countries: France, United Kingdom
- Ecocycles Interacting impacts of land use and climate changes on ecosystem processes: from cyclic herbivores to predators of conservation concern. Coordinator: University of Aberdeen. Participating countries: United Kingdom, France, Spain, Norway
- FIREMAN Fire management to maintain biodiversity and mitigate economic loss. Coordinator: University of Liverpool (United Kingdom). Participating countries: United Kingdom, France, Spain, Sweden
- 8. LinkTree Linking genetic variability with

ecological responses to environmental changes: forest trees as model systems. Coordinator: CIFOR-INIA (Spain). Participating countries: Spain, France, Germany, Sweden

- 9. PEATBOG Pollution, Precipitation and Temperature Impacts on Peatland Biodiversity and Biogeochemistry. Coordinator: Manchester Metropolitan University (United Kingdom). Participating countries: United Kingdom, Germany, Sweden, The Netherlands
- RACE Risk Assessment of Chytridiomycosis to European amphibian biodiversity. Coordinator: Imperial College of London (United Kingdom). Participating countries: United Kingdom, France, Germany, Spain
- 11. TenLamas The value of Ecological Networks and different LAndscape Management ApproacheS. Coordinator: Museum National d'Histoire Naturelle (France). Participating countries: France, United Kingdom, Germany
- 12. VITAL Ecosystem service provision from coupled plant and microbial functional diversity in managed grasslands. Coordinator: National Centre for Scientific Research, Laboratory of Alpine Ecology (France). Participating countries: France, United Kingdom, Germany, Spain, Austria





## **CORE Organic**

Coordination of European Transnational Research in Organic Food and Farming

## CORE organic

#### PROJECT DETAILS

Perio	bd	From 2004-10-01 To 2007-09-30			
Follo	w-on ERA-NET	CORE Organic II and CORE Organic Plus (under negotiation)			
Proje	ect reference	11716			
Prog acro	ramme nym	FP6-COORDINATION			
Call	identifier	ERA-NET/1/CA-SSA-B			
Title		Coordination of European Transnational Research in Organic Food and Farming			
Cont	ract type	Coordination (or Networking) Action			
	l cost ontribution	€ 1 200 060 € 1 200 060			
	nber of 13 ticipants				
Coor	ordinator Danish Research Centre for Organic Food and Farming, University of Aarhus DARCOF, Denmark				
Contact person Niels Halberg (coordination) Ulla Sonne Bertelsen (project manageme T +45 87 15 77 16 E Ulla.Bertelsen@icrofs.org					
Web	Website www.coreorganic.org				
Participants					
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW				
CH	Federal Office for Agriculture FOAG				
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV				
DE	Federal Agency of Agriculture and Food BLE				
DK	Danish Research Centre for Organic Food and Farming, University of Aarhus DARCOF				
FI	Ministry of Agriculture and Forestry MMM				
FR	Ministry of Agriculture MAAPAR				
FR	French National Institute for Agricultural Research INRA				
IT	Ministry of Agricultural, Food and Forestry Policies MiPAAF				
NL	Ministry of Economic Affairs EZ				
NO	Research Council of Norway RCN				
SE	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS				
UK	Department for Environment, Food and Rural Affairs DEFRA				

## **Objective**

The overall objective of CORE Organic is to enhance the quality, relevance and utilisation of resources in European research in organic food and farming by gathering a critical mass and establishing a joint research programme.

The four specific objectives are:

- 1. Increased exchange of information and establishment of common, open webbased archive. Initially, the project will carry out mapping and analysing of existing research programmes, activities and facilities in partner states. The information will partly be used for establishing webbased project databases, and partly to develop the open access archive for research documents on organic food and farming (www.orgprints.org). Besides databases and archives, an Internet portal with links to national and regional research programmes and other issues relevant to research in organic food and farming will be established.
- 2. Coordination of existing research and integration of knowledge. A thorough description of the current situation in member states and the institutions participating in organic farming research will be produced. The data will be used for identification of barriers, gaps and possibilities for increased cooperation as well as for identifying new research areas suitable for cooperation.

- 3. Sharing and developing best practice for evaluating organic research. Objective three will focus on the joint development of best practice of evaluation and quality assurance in new research areas within organic food and farming. For evaluation of projects and programmes, a set of criteria, as well as a list of excellent experts, will be developed. Training schemes for research personnel and experts will be developed.
- 4. Identification and coordination of future research. A list of prioritised research topics and plans for future coordination will be developed and a range of procedures for transnational funding will be agreed. By the end of the project, the goal is to establish a joint research programme and a joint pool of at least three million euros per year for transnational research.

## Consortium

The CORE ORGANIC consortium consists of 13 partners from 11 different countries.

## Mapping and scoping activities

The following mapping was conducted: a common European project database with ongoing national projects, existing research programmes, existing research facilities, national evaluation criteria and procedures for the construction and implementation of research programmes and projects.

A common open source database, Organic Eprints, was established in order to systematically store data on programmes, projects and facilities in each participating country. The publication from the transnational projects can be found at www. orgprints.org by browsing European Union, CORE Organic and the short name of the project.

The mapping and description of existing research programmes, projects and facilities was carried out through the collection, check, and storage of all relevant information inorganic Eprints. Country reports follow a standardised structure were made. Each report contained the history of organic farming research, explanation of the organisational structure and research set up, financial details about the different research programmes, national research facilities, national procedures for initiation of research and stakeholder engagement, call procedures, utilisation of research findings and national scientific education and research schools. Based on the reports, the first comprehensive European overview of the status quo of research in organic food and farming was published as a book.

## Joint calls

#### First call 2007

Pilot call

CORE Organic ERA-NET launched a pilot joint call in 2007. The topics were:

- Animal disease and parasite management, including preventive and health improvement therapies to reduce reliance on antibiotics;
- Quality of organic food health and safety, and
- Innovative marketing strategies identification of successful marketing methods, local markets.

The budget was EUR 8.3 million.

Projects funded:

- 1. AGTEC-ORG Methods to improve quality in organic wheat. Coordinator: ISARA-Lyon (France). Participating countries: France, Austria, Switzerland, Denmark, Italy
- ANIPLAN Planning for better animal health and welfare. Coordinator: AU (Denmark). Participating countries: Germany, Austria, Switzerland, Italy, United Kingdom
- FCP How to communicate ethical values. Coordinator: Uni-Kassel (Germany). Participating countries: Germany, Austria, Switzerland, Italy, United Kingdom
- COREPIG A tool to prevent diseases and parasites in organic pig herds. Coordinator: AU (Denmark). Participating countries: Denmark, Austria, Switzerland, Germany, France, Italy, Sweden, United Kingdom

- iPOPY More organic food for young people. Coordinator: BIOFORSK (Norway). Participating countries: Norway, Denmark, Finland, Italy
- PathOrganic Assessing and Reducing Risks of Pathogen Contamination. Coordinator: BOKU (Austria). Participating countries: Austria, Switzerland, Germany, Denmark, The Netherlands, Sweden
- 7. PHYTOMILK What makes organic milk healthy? Coordinator: SLU (Sweden).

Participating countries: Sweden, Denmark, Finland, Norway

8. QACCP - How to assure safety, health and sensory qualities of organic products. Coordinator: Uni-Kassel (Germany). Participating countries: Germany, Austria, Switzerland, Denmark, Finland, France, Norway, Italy

The projects were running from 2007 to 2011/12, and kick-off and mid-term seminars were organised.





## **ERA-ARD**

The Agricultural Research for Development (ARD) dimension of the European Research Area (ERA)



#### PROJECT DETAILS

Perio	d	From To	2005-04-01 2009-12-31		
Follow	v-on ERA-NET	T ERA-ARD II			
Proje	ct reference	517837			
Progr acror	amme Iym	FP6-COORDINATION			
Call i	dentifier	ERA-NET/1/CA-SSA-C			
Title		The Agricultural Research for Development (ARD) dimension of the European Research Area (ERA)			
Contr	act type	Coordin	nation (or networking) action		
Total cost EU contribution		€ 3 53 € 3 45			
Number of participants		15	15		
Coordinator		French Agricultural Research Centre for International Development CIRAD			
Contact person		Christian Hoste E christian.hoste@cirad.fr			
Website		www.era-ard.org			
Participants					
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW				
BE	Foreign Trade and Development Cooperation Directorate DGOS				
CH	Federal Department of Foreign Affairs/Swiss Agency for Development and Cooperation SDC				
DE	Federal Ministry of Food, Agriculture Consumer Protection BMELV				
DK	Ministry of Foreign Affairs – Department of Development Policy – Research Section DMFA				
ES	National Institute for Agriculture, Technology and Food Research INIA				
FR	Agricultural Research Centre for International Development CIRAD				
FR	Ministry of Highe	r Educa	tion and Research MESR		
IT.	Minister of Freedom Affrica Disasterate Consul for				

- IT Ministry of Foreign Affairs Directorate General for Development Cooperation DGCS
- LT Ministry of Agriculture Rural Development Department ZUM
- NL Ministry of Economic Affairs EZ
- PL Ministry of Agriculture and Rural Development Department of Science, Advisory Services and Agriculture MriRW
- SI Ministry of Higher Education, Science and Technology Office for International Cooperation and EU Affairs MHEST
- UK Department for International Development Central Research Department DFID SE Swedish Governmental Agency for Innovation Systems
- SE Swedish Governmental Agency for Innovation Systems VINNOVA SE Swedish Research Council for Environment, Agricultural
- Sciences and Spatial Planning FORMAS
- UK Forestry Commission FC
- UK Scottish Enterprise Dumfries and Galloway SEDG

#### **Objective**

The ERA-ARD Agricultural Research Development project is focused on research addressing the agricultural challenges faced by developing countries. Most developing countries rely on agriculture as the engine for their economic growth. In Africa, for example, 70% of the population works, directly or indirectly, in the agricultural sector, and agriculture accounts for 35% of the gross national product and 40% of exports. Agricultural research is thus a critical element in fighting poverty and hunger in poor countries and also in promoting sustainable development.

Europe also faces its own challenges over agriculture, food chains, food safety, animal health and welfare etc., which clearly have a global dimension. Many EU Member States have developed specialist scientific expertise in agricultural R&D and give support through their bilateral and multilateral programmes. Together with the European Commission they support the international research centres of the Consultative Group on International Agricultural Research (CGIAR), providing more than EUR 140 million per year.

Europe has a strong tradition in ARD and as many as 10 000 scientists are involved in projects in this field. But in EU Member States, the responsibility for ARD programme planning and funding is often dispersed. One of the aims is to overcome this fragmentation by improving synergies between national ARD programmes.

## Mapping and scoping activities

Initial efforts of the programme focused on mapping exercises. A 4-page document was produced by country as well as a synthesis which served as background documents for the 2007 mid-term conference and were entered in the European information system InfoSys+. They were updated at the end of 2009 and three new countries (Finland, Portugal and Turkey) contributed to the exercise. ARD programmes funded by these 17 European countries represent around EUR 520 million each year.

Based on these results and contributions of a Southern Advisory Group (SAG), a strategic vision for European ARD in 2025 was developed. This work paved the way to a more integrated and coordinated approach between agricultural research for Europe and European agricultural research for developing and emerging countries. The project also explored ways and means to increase impact of European ARD on the Millennium Development Goals (MDGs).

The project developed shared methodologies and innovative approaches for ARD programmes management (planning, monitoring, evaluation and impact assessment). It also provided a stronger coordination and cooperation between on-going ARD projects through the formulation and implementation of joint activities on "Agri-food chain Safety" and on "Capacity Development" and by launching a transnational competitive call on "Bioenergy: an opportunity or threat for the rural poor".

#### Consortium

The ERA-ARD consortium consists of 15 organisations from 14 different European countries.

## Joint calls

#### First call

The first coordinated call under the ERA-ARD was to contribute to exploring the opportunities

and threats that bioenergy production poses for the rural poor in terms of food security, poverty alleviation and rural development and to investigate how bioenergy production influences land use and affects natural resources.

ERA-ARD partners committed a total of over two million euros into funding transnational bioenergy projects.

Researchers and research consortia were invited to submit proposals addressing one or more of the following topics:

- Bioenergy production and food security;
- Bioenergy production and poverty alleviation and rural development;
- Bioenergy production and natural resources (land, water, ecosystems, biodiversity).

Projects funded:

- PROBIOFUEL Prospects for sustainable biofuel production in developing countries: A Case study of Kenya, East Africa. Coordinator: University of Natural Resources and Applied Life Sciences BOKU (Austria). Participating countries: Austria, Kenya, Hungary
- BIOPLUS Bioenergy in Ukraine possibilities of rural development and opportunities for local communities. Coordinator: Institute for Building Mechanization and Electrification of Agriculture, Warsaw (Poland). Participating countries: Poland, Lithuania, Ukraine
- BIODIESELFEED Reduction of impact of biofuel production to food stock. Coordinator: Lithuanian University of Agriculture, Kaunas (Lithuania). Participating countries: Lithuania, Poland, Ukraine
- JATROPHABILITY Impacts of tropical land use conversion to Jatropha and oil palm on rural livelihoods and ecosystem services in India and Mexico. Coordinator: CABI, Wallingford (United Kingdom). Participating countries: United Kingdom, Belgium, Spain, Switzerland, Mexico, India
- 5. Bioenergy in Africa– Opportunities and Risks of Jatropha and Related Crops. Coordinator: University of Bern, Centre

for Development and Environment CDE (Switzerland). Participating countries:

Switzerland, Netherlands, Austria, UK, Ethiopia, Kenya, Tanzania, Mexico, Belize





ERA-IB

Towards an ERA in Industrial Biotechnology



## **Objective**

Industrial Biotechnology (IB) is the modern use and application of biotechnology for the sustainable processing and production of chemicals, materials and fuels. It uses enzymes and micro-organisms to make products in sectors such as chemistry, food and feed, paper and pulp, textiles and energy.

This ERA-NET is a joint initiative of 22 research programme funding and/or management organisations of 13 countries with important initiatives in the field of IB. In all of the participating countries Industrial Biotechnology (IB) is recognized as a key technology for a sustainable chemical industry and society and of utmost importance for economic growth and innovation in Europe.

IB, although already successfully established in some sectors, is still in its infancy. Therefore, more in-depth knowledge derived from both basic as well as applied research, is necessary to fully explore the wide range of possibilities. As national strategies and activities in this area are currently being developed and implemented, it is now the moment for effective coordination and cooperation in Europe.

The partners of this ERA-IB committed themselves to enhanced cooperation and coordination in IB research funding and management policies. The structured work programme includes the development of dedicated procedures and systems for coordination and integration of

#### PROJECT DETAILS

Perio	bd	From	2006-05-01		
		То	2011-12-31		
Follow-on ERA-NET		ERA-IB	2		
Proje	ect reference	03558	035581		
Prog acro	ramme nym	FP6-CC	FP6-COORDINATION		
Call	identifier	ERA-NE	T/1/CA-SSA-E		
Title		Toward	ls an ERA in Industrial Biotechnology		
Cont	ract type	Coordir	Coordination (or Networking) Action		
Tota EU c	l cost ontribution		€ 2 513 644 € 2 513 644		
	ber of icipants	22			
Coor	dinator		therlands Organisation for Scientific ch NWO, The Netherlands		
Cont	act person		chmets nmets@nwo.nl		
Web	site	www.e	ra-ib.net		
Part	icipants				
BE	Belgium Science	e Policy (	Office BelSPO		
DE	Federal Ministry	, of Educ	ation and Research BMBF		
DE	Jülich Research	Centre J	UELICH		
DE	Agency for Renewable Resources FNR				
DE	Saxon State Ministry for the Environment and Agriculture SMUL				
DK	, 2				
ES					
ES	Spanish Foundation for Science and Technology (FECyT)				
FI	Finnish Funding Agency for Technology and Innovation TEKES				
FR	French Environn	nent and	Energy Management Agency ADEME		
HR					
IL	Chief Scientist (	Office, M	inistry of Health CSO-MOH		
IL	Ministry of Scier	nce, Culti	ure and Sport MOST		
NL	NL The Netherlands Organisation for Scientific Research NWO				
RO	National Centre	for Prog	ramme Management CNMP		
PL	Ministry of Science and Higher Education MSHE				
PL	Lodz University of Technology TUL				
PL	National Centre for Research and Development NCBiR				
PT	Foundation for Science and Technology FCT				
UK	UK Department of Trade and Industry DTI, later Department for Business, Enterprise and Regulatory Reform BERR				
UK	University of York UoY				
UK	Technology Strategy Board TSB				

national programmatic research activities, identification of important themes for new research programmes, and creation of (new) transnational managed research programmes (including joint calls for proposals). In selecting the most important research themes for these jointly managed research programmes, the ERA-IB closely cooperates with the European Technology Platform for Sustainable Chemistry and the European Federation for Biotechnology (EFB). The ultimate goal of ERA-IB is to establish a network that will serve as a basis for a long lasting European research cooperation in Industrial Biotechnology.

#### Consortium

In the ERA-NET "Towards an ERA in Industrial Biotechnology" partners from 13 different countries joined forces to reduce fragmentation of national research efforts in the area of Industrial Biotechnology (IB), 22 partners and five observers from 13 states decided to organize the network ERA-IB within the ERA-NET scheme. Observer organisations are: IB Section Italian Technology Platform for Sustainable Chemistry IT-Suschem (Italy), Ministry of Higher Education, Science and Technology MHEST (Slovenia), Swedish Governmental Agency for Innovation System VINNOVA (Sweden), Research Council of Norway RCN (Norway) Deutsche Bundesstifting Umwelt DBU (Germany).

#### Mapping and scoping activities

The preparations for the joint call started in 2007. The partners of ERA-IB investigated the possibilities of how national and regional funding programmes and procedures could be integrated in such a way that they could be commonly executed. In addition ERA-IB invited stakeholders from both the academic and industry sectors to discuss the topics that should be addressed in the 1st Joint Call. The result of this was a list of 11 topics which was used for both 1st and 2nd Joint Call.

With the joint calls ERA-IB also aimed at establishing cross-border partnerships between industrial and academic IB research, improving

and accelerating technology transfer, and strengthening European efforts to achieve sustainable industrial development. These goals were achieved by implementing common calls for transnational R&D projects. The transnational collaboration on research as well as on funding level contributed to strengthen the still fragmented European Industrial Biotechnology funding landscape.

## Joint calls

#### First call 2008

launched Europe's FRA-IB first jointly coordinated, transnational call for project proposals in Industrial Biotechnology, entitled: "Industrial biotechnology for Europe: an integrated approach" in February 2008. The 1st joint call of ERA-IB provides academic and industrial researchers to establish cross-border partnerships in industrial biotechnology research. Out of the 32 applications, eight projects were selected for funding. The total granted budget is EUR 9.7 million. In all, 51 research groups in academia and industry were funded, and an additional seven partners participate with own funding. The projects will run at least three vears.

Projects funded:

- BioProChemBB Bio-based production of chemical building blocks: Corynebacterium glutamicum as a platform for new and efficient bioprocesses. Coordinator: Institute of Microbiology and Biotechnology, University of Ulm (Germany). Participating countries: Germany, Spain, France, Portugal, The Netherlands
- Eng Biocat Implementing an Enzyme Engineering Technology Platform for the provision of tailor-made enzymes for biocatalytic. Coordinator: c-LEcta GmbH (Germany). Participating countries: Germany, The Netherlands, Finland, Spain, Denmark
- 3. EPOS Enzyme Production in Optimized Streptomyces. Coordinator: Leiden Institute of Chemistry, Leiden University (The Netherlands). Participating countries: The

Netherlands, Spain, Belgium, France

- ERA-NOEL Novel enzyme tools for production of functional oleochemicals from unsaturated lipids. Coordinator: VTT Valtion Teknillinen Tutkimuskeskus (Finland). Participating countries: Finland, The Netherlands, Germany, Portugal, Denmark
- 5. IMAPPROT Integrated, multi-host approach for the improved microbial production of high quality therapeutic enzymes and proteins. Coordinator: Universitat Autònoma de Barcelona (UAB) (Spain). Participating countries: Spain, Finland, Italy, Austria
- POPCORN Targeting population heterogeneity at microscale for robust fermentation processes. Coordinator: Center for Microbial Biotechnology, Technical University of Denmark (Denmark). Participating countries: Denmark, The Netherlands, Belgium
- PUBB Production and Upgrading of 2,3-Butanediol from Biomass. Coordinator: Johann Heinrich von Thunen-Institute Institute of Agricultural Technology and Biosystems Engineering (Germany). Participating countries: Germany, Poland, Spain, Belgium
- 8. VOC reduction of lignin containing materials Improvement of strength properties and reduction of emission of volatile organic compounds by enzymatic modification of lignin containing biopolymers and composites. Coordinator: Saxon Institute for Applied Biotechnology (SIAB) (Germany). Participating countries: Germany, Spain, Belgium, Poland, Finland

#### Second call 2010

The 2nd Joint Call of ERA-IB provides academic and industrial researchers to establish crossborder partnerships in industrial biotechnology research. Out of the 46 applications, 10 projects were selected for funding. The total granted budget is EUR 11.1 million. The projects will run at least three years. Projects funded:

- 1. BioSurf Novel Production Strategies for Biosurfactants. Coordinator: Fraunhofer-Gesellschaft zur Förderung der Angewandten Forschung e.V. (Germany). Participating countries: Germany, Belgium, France
- 2. ChitoBioEngineering Metabolic and Enzyme Engineering for the Biotechnological Production of Partially Acetylated Chitosans. Coordinator: Westfälische Wilhelms-Universität Münster (Germany). Participating countries: Germany, Spain, Belgium
- GenoDrug Genome mining for drug discovery: Activation of silent biosynthetic gene clusters. Coordinator: Eberhard Karls Universität Tübingen (Germany). Participating countries: Germany, Spain, Poland, Finland
- IMMUNOTEC Robust fermentation production of tacrolimus and related immunosuppressors: Molecular genetics and metabolic engineering to construct a by-product free superproducer. Coordinator: INBIOTEC Instituto de Biotecnología de León (Spain). Participating countries: Spain, Germany, Portugal
- [INTACT] Integral Engineering of Acetic Acid Tolerance in Yeast. Coordinator: Delft University of Technology (The Netherlands). Participating countries: The Netherlands, Portugal, Germany, Spain
- MESIAB Multi enzyme systems involved in astin biosynthesis and their use in heterologous astin production. Coordinator: Technische Universität Dresden (Germany). Participating countries: Germany, The Netherlands, France, Finland
- MicroTechEnz Microreactor technology for continuous enzymatic reactions catalysed by C-C-bond forming enzymes. Coordinator: University of Zagreb (Croatia). Participating countries: Croatia, Germany, Spain
- ProAChIm Combining efforts in enzyme and process engineering to improve access to multifunctional chiral intermediates. Coordinator: Freiberg University of Mining and Technology (Germany). Participating countries: Germany, Poland, The
Netherlands, Portugal

9. Products from lignocellulose - Development of a process for the utilization both the carbohydrate and the lignin content from lignocellulosic materials of annual plants for the production of valuable products. Coordinator: Saxon Institute for Applied Biotechnology at the Leipzig University (Germany). Participating countries: Germany, Finland, Romania, The Netherlands

10. Pseudomonas 2.0 - industrial biocatalysis using living cells. Coordinator: TU Dortmund University (Germany). Participating countries: Germany, The Netherlands, Croatia, Spain





# **ERA-NET BIOENERGY**

Establish a structural cooperation between national bioenergy RTD programmes aiming at: cost efficiency, improved quality and accelerated development



## **Objective**

The EU's energy strategy sets out to replace 12% of total energy consumption with renewable sources such as bioenergy by 2010. Bioenergy is a form of energy that could bring many benefits to the developing as well as the developed world. The biomass used to create bioenergy or biofuels is abundant in many countries, especially in the form of agricultural by-products. Growing bioenergy crops can give a boost to rural economies, providing an alternative market for existing crops. Biomass also has the advantage that it can be mixed in with other fuel sources. As an energy source biomass is nearly 'CO2 neutral'.

The initial 50-month ERA-NET Bioenergy programme which was launched in 2004 sets out to develop a sustainable, long-term platform for transnational cooperation in bioenergy research across the EU. Across Europe there are many national and regional bioenergy research programmes which have been working independently, driven by the potential benefits of bioenergy and renewable energy sources.

The ERA-NET Bioenergy project is focused on developing structured cooperation between national bioenergy research programmes in the EU Member States. Its mission is to enhance the quality and cost-effectiveness of European bioenergy research programmes and encourage the development of new transnational research projects.

#### PROJECT DETAILS

Perio	bd	From To	2004-10-01 2010-12-31		
Follow-on ERA-NET		Self-funding from 2011			
Project reference		51573	515738		
Programme acronym		FP6-CC	FP6-COORDINATION		
Call	identifier	ERA-NE	T/1/CA-SSA-B		
Title		Establish a structural cooperation between national bioenergy RTD programmes aiming at: cost efficiency, improved quality and accelerated development			
Cont	ract type	Coordination (or Networking) Action			
Total cost EU contribution		€ 2 651 593 € 2 651 593			
Num parti	ber of icipants	15			
Coordinator			Ministry of Economic Affairs EZ - Agency NL The Netherlands		
Cont	act person	E kees. Matté I T +31	0)88-6022458 kwant@agentschapnl.nl		
Website		www.e	www.eranetbioenergy.net		
Parti	icipants until 20	11			
AT	Austrian Researd	:h Promo	tion Agency FFG		
AT	Austrian Energy				
AT	Federal Ministry	of Transport, Innovation and Technology BMVI			
DK	Energinet.dk				
FI	Finnish Funding	Agency f	or Technology and Innovation TEKES		
FR	French Environm	ent and Energy Management Agency ADEME			
DE	BMELV		Agriculture and Consumer Protection		
DE	Agency for Rene				
IE		ergy Authority Ireland SEI			
PL NL	National Centre for Research and Development NCBiR				
NI	Ministry of Economic Affairs EZ				
SE	Agency NL (formerly SenterNovem) Swedish Energy Agency SWEA				
UK	Swedish Energy Agency SweA Engineering and Physical Sciences Research Council EPSRC				
UK	· · · · · · · · · · · · · · · · · · ·				
	icipants self-fun				
AT			tion Agency EEG		
AT		rian Research Promotion Agency FFG			
DF		deral Ministry of Transport, Innovation and Technology BMV ency for Renewable Resources FNR			
IE			ority Ireland SEAI		
PI			arch and Development NCBiR		
NL		erly SenterNovem)			
SE	Swedish Energy				
UK		nd Biological Sciences Research Council BBSR			
UK	Technology Stra	-			

A further focus of the Bioenergy programme is to enhance the complementarity and synergy between Community actions undertaken under the EU's Framework Programme and those of other European scientific cooperation organisations, such as COST, EUREKA, etc. Over the first four years of operation the programme has developed 'cooperation models' for both short and long term projects which take into account the legal aspects, selection criteria, evaluation methods, financial support and monitoring methods.

Gaps have been identified in research, and opportunities for interdisciplinary work have been pinpointed. A platform has been created for information exchange between programme managers and pilots of transnational bioenergy research in joint work programmes.

To ensure the effectiveness and gained experience in the cooperation models the programme has been extended for two more years with EC funding until 31st December 2010. After this EU funded period six partners decided to continue the work on a self-funded basis which is intended to last for 2015. In 2013 two more partners joined the consortium.

## Consortium

The ERA-NET Bioenergy consortium consists of organisations that finance or manage national or regional research activities with respect to bioenergy. The ERA-NET Bioenergy consortium combines the basic elements of RTD programmes for a successful bioenergy development of all participating countries. All consortium partners are key players in the stimulation of research activities in this field. Their involvement in the consortium enables the ERA-NET Bioenergy project to combine national policy makers and policy executing organisations of different European countries to learn from each other and research the possibilities of coordination and cooperation of RTD programmes. The involvement of all three elements (ministries, agencies, programmes) is essential for the project. There were 15 countries participating in the ERA-NET Bioenergy network until 31 December 2010. The self-funded consortium from 2011 consists of eight partners (from the Netherlands Germany, Austria, Ireland, Poland, Sweden and the UK) and four observers: Energinet.dk (Denmark), Finnish Funding Agency for Technology and Innovation TEKES (Finland), French Environment and Energy Management Agency ADEME (France) and Engineering and Physical Sciences Research Council EPSRC (United Kingdom).

## Mapping and scoping activities

- Create a structure for cooperation and systematic information exchange;
- Identify areas of common strategic interest for collaboration by networking national RTD programmes;
- Develop a workable model of cooperation between the partners;
- Set up pilots of joint work packages and learn from these projects;
- Develop national political support and expand the collaboration by dissemination of results.

The involvement of high level management from each of the ERA-NET partners helps ensure that the project results will become embedded in national research policies.

## Joint calls

#### **First call 2006** Pilot call

The first pilot joint call for proposals on the topic "Small Scale Combustion" was launched at the beginning of March 2006. The process resulted in five funded projects with a total granted support of EUR 1.7 million (total project costs: EUR 2.1 million) provided by the participating countries Sweden, Austria, Germany, Finland and the United Kingdom.

Projects funded:

1. Development of Test Methods for Non Wood Small-Scale Combustion Plants. Coordinator: University of Nottingham (United Kingdom). Participating countries: Austria, Germany, Sweden and Finland

- 2. **BIOMASS-PM** \_ Clean Biomass Combustion in Residential Heating: Particulate Measurements, Sampling and physicochemical and Toxicological Characterization. Coordinator: Austrian Bioenergy Center GmbH (Austria). Participating countries: Finland, Germany, Austria, Sweden
- Combustion Characteristics of Ash Rich Pellets - Evaluation of technology for small scale combustion of pellets from new ash rich biomasses regarding combustion technology and emission reduction in special case particulate matter and NOx. Coordinator: University of Kuopio (Finland). Participating countries: Sweden, Finland, Germany
- Small Scale Biomass-Fired CHP Systems Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: United Kingdom, Germany
- 5. COPECOM Control Potential of Different Operating Methods in Small-Scale Wood Pellet Combustion. Coordinator: Tampere University of Technology (Finland). Participating countries: Finland, Sweden

#### Second call 2007

The second joint call within the framework of ERA-NET Bioenergy was the Joint Call Gasification: cleaning and treatment of product gas from biomass gasifiers. This call was launched on 1st June 2007 and was specifically for the topic: treatment and cleaning of product gas from biomass gasifiers. Six Projects were funded with a total granted support of EUR 3.7 million (total project costs: EUR 4.6 million), provided by the participating countries Sweden, Germany, the Netherlands, United Kingdom, Denmark and Austria.

#### Projects funded:

Development of photoionization-1. а technique for detection on-line measurement of biomass tar concentrations. Coordinator: Biomass Technology Group BTG (The Netherlands). Participating countries: The Netherlands, Sweden

- EMF Mop Fan and Electrofilter: an innovative approach to cleaning product gases from biomass gasification. Coordinator: Technische Universität Berlin (Germany). Participating countries: Germany, United Kingdom
- Synclean Intensification of Syngas Cleaning and Hydrogen Separation. Coordinator: Institut für Mikrotechnik Mainz GmbH (Germany). Participating countries: United Kingdom, Germany
- 4. Tar removal from low-temperature gasifiers. Coordinator: Energy Research Centre ECN (The Netherlands). Participating countries: The Netherlands, Denmark
- 5. Energy efficient selective reforming of hydro carbons. Coordinator: Chalmers University (Sweden). Participating countries: Sweden, Denmark
- OptiBtLGas Cleaning and treatment of Product Gas from biomassgasifiersoptimisation of the H2:CO - ratio in synthesis gases for the production of 2nd generation biofuels. Coordinator: CU Tec Institut (Germany). Participating countries: Germany, Austria

#### Third call 2008

On 2nd January 2008, the Joint Call on Short Rotation Coppice (woody species) was launched within the framework of ERA-NET Bioenergy. The call aims to generate joint European research and development activities and focuses on three topics:

- Genetic improvement of Salix and other woody SRC species
- Improving the value chain of SRC
- Environmental aspects of SRC

Three projects were funded with a total granted support of EUR 2.2 million (total project costs: EUR 2.7 million), provided by the participating countries Germany, France, Sweden, Austria, United Kingdom. Projects funded:

- 1. CREFF Cost reduction and efficiency improvement of Short Rotation Coppice. Coordinator: INRA (France). Participating countries: France, Germany, Austria
- 2. RATING-SRC Reducing environmental impacts of SRC through evidencebased integrated decision support tools. Coordinator: Rothamstad Research (United Kingdom). Participating countries: United Kingdom, Sweden
- BREDNet-SRC Towards targeted breeding of a European SRC willow crop for diverse environments and future climates. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: Sweden, Germany, United Kingdom

#### Fourth call 2009

ERA-NET Bioenergy launched on 9th February 2009 the joint call on Clean Biomass Combustion Clean Biomass Combustion is a sustainable way to ensure a renewable energy supply and improved air quality. It is also a prerequisite for a significant extension of biomass use for power and heat production. The call aims to generate joint European research and development activities and focused on four topics:

- Modelling of the combustion process
- Advanced characterisation and relevant standardisation of biofuels
- Technology development for fine particle and NO<sub>x</sub> reduction (< 20 MW<sub>th</sub>)
- + Health effects of small scale combustion (< 3  ${\rm MW}_{\rm th})$

Four projects were funded with a total granted support of EUR 6.1 million (total project costs: EUR 8.5 million), provided by the participating countries Austria, Germany, Sweden, Poland, Denmark, Finland, France, Ireland.

Projects funded:

1. BIOHEALTH – Health effects of particulate emissions from small scale biomass combustion. Coordinator: University of Eastern Finland (Finland). Participating countries: Austria, Finland, France, Sweden

- BIOMODELLING Advanced Biomass Combustion Modelling for Clean Energy Production. Coordinator: Czestochowa University of Technology (Poland). Participating countries: Finland, Poland, Sweden
- FUTUREBIOTEC Future low emission biomass combustion systems. Coordinator: Bioenergy 2020+ (Austria). Participating countries: Austria, Germany, Denmark, Finland, Ireland, Norway, Poland, Sweden
- SCITOBICOM Scientific tools for fuel characterization for clean and efficient biomass combustion. Coordinator: Technical University of Denmark (Denmark). Participating countries: Austria, Denmark, Norway, Finland

Two other proposals, which were included in the originally submitted proposals, were subsequently implemented through funding support outside of the formal ERA-NET Bioenergy process.

Projects funded:

- EN-PME-TEST Common European method for the determination of particulate matter emissions of solid fuel burning appliances and boilers. Coordinator: Bioenergy 2020+ (Austria). Participating countries: Austria, Switzerland, Germany, Denmark, Finland, France, Sweden
- 2. BRAN BLENDING Development of a low emission standardized biomass fuel from bran. Coordinator: Austria Research Institute for Chemistry and Technology (Austria). Participating countries: Austria, France, Sweden

#### Fifth call 2010

Joint Call between ERA-NET Bioenergy and WoodWisdom-Net.

The Joint Call: Sustainable forest management and optimised use of lignocellulosic resources - Bridging gaps between research disciplines, producers, consumers and society was launched 15th September 2010.

#### Call topics:

- 1. Forest for multiple needs of society, including enhanced productivity and optimised use of forest feedstock.
- 2. Advanced products and technologies for primary wood processing and manufacturing of wood and fibre-based products.
- 3. Advanced biofuels and biorefineries.

The total public funding of EUR 18.5 million for the call is provided by the 19 participating national funding organisations from Finland, France, Germany, Ireland, Italy, Latvia, Norway, Poland, Slovenia, Spain, Sweden, Turkey and the United Kingdom.

Under this joint call 13 projects of ERA-NET Bioenergy and WoodWisdom-Net 2 started in early 2012.

Projects funded:

- Cell-Assembly Self-Assembled Biomimetic Wood-Based Nanocomposites. Coordinator: Aalto University (Finland). Participating countries: Finland, Germany, Sweden
- LBTGC Load Bearing Timber-Glass Composite Structures. Coordinator: Vienna University of Technology (Austria). Participating countries: Austria, Sweden, Germany, Turkey, Slovenia, China, Brazil
- RegioPower A regional IT-based platform for bringing resource needs and land-based resource production together. Coordinator: Dresden University of Technology (Germany). Participating countries: Germany, Sweden, Finland, Slovenia, China
- WoodApps Improvement in collaboration along the wood value chain through knowledge-based methods and mobile applications. Coordinator: Research Association High Competence Network (Germany). Participating countries: Germany, Slovenia, Sweden, Ireland
- 5. WOP WoodSupply. Coordinator: University of Helsinki (Finland). Participating countries: Finland, Sweden, Germany
- 6. GREASE A novel lipid platform to sustainable bio-based products from

low-value forestry streams through multifunctional fatty acids. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: Finland, Sweden, Germany, Italy, Turkey

- BIOFOAMBARK Bark Valorization into insulating Foams and Bioenergy. Coordinator: Institute of Forest Utilization and Works Science, University of Freiburg (Germany). Participating countries: Germany, Finland, France, Slovenia, Spain, Italy
- 8. PowerBond Enhancement of Fiber and Bond Strength Properties for Creating Added Value in Paper Products. Coordinator: Tampere University of Technology (Finland). Participating countries: Finland, Germany, France, Sweden, Austria
- 9. ProLignin High-value products from lignin side-steams of modern Biorefineries. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: Finland, Latvia, Germany, Italy, Spain, Norway, United States, Brazil
- WOBAMA Wood Based Materials and Fuels. Coordinator: Kungliga Tekniska Högskolan (Sweden). Participating countries: Finland, Sweden, France, Poland
- 11. AgroCop Maximizing Timber and Energy Wood Production by Innovative Agroforestry Systems with Short Rotation Coppice as Intercrop. Coordinator: FVA Baden-Württemberg (Germany). Participating countries: Germany, France, Ireland, United Kingdom, Italy
- 12. PINOBIO Pinosylvins as novel Bioactive Agents for Food Applications. Coordinator: University of Eastern Finland (Finland). Participating countries: Finland, Slovenia, Latvia, Spain
- 13. COOL COMPETING USES OF FOREST LAND – The future of integrative and segregative policy and forest management approaches in Europe. Coordinator: Institute of Forest and Environmental Policy (IFP)/University of Freiburg (Germany). Participating countries: Finland, Germany, Norway, Slovenia, Spain

#### Sixth call 2012

The 6th ERA-NET Bioenergy joint call on Biogas and Energy Crops was launched on 1st March 2012 and will support transnational research and development projects in areas ranging from energy plant breeding to biogas upgrading.

#### Call topics:

- Innovative biogas production. Focal points include e.g. pre-treatment technologies, unexploited substrates, measurement/ control, upgrading, management of digestate.
- Sustainable biomass for energy purposes. Focal points include e.g. optimisation of existing and new crops by way of plant breeding or cultivation techniques, breeding and cultivation for cascading uses, harvesting/storage technologies.

Four projects were funded with a total granted support of EUR 4.3 million (total project costs: EUR 6.6 million) provided by the participating countries Sweden, Poland, Germany, Ireland and the United Kingdom.

Funded projects:

 SE Biomethane - Small but efficient – Cost and Energy efficient BioMethane Production. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: Germany, Sweden, Poland

- ORNATE Optimisation of Reed Canary Grass as a native European Energy Crop. Coordinator: IBERS Aberystwyth University (United Kingdom). Participating countries: Sweden, Ireland, United Kingdom, United States
- AmbiGAS Biogas production from high volume industrial effluents at ambient temperatures. Coordinator: University of Southampton (United Kingdom). Participating countries: United Kingdom, Ireland, Germany, Sweden
- ERANET GAS Genetic Adaptation of Sorghum: Genomics-based breeding of a sustainable, next-generation bioenergy crop for Europe. Coordinator: Justus Liebig University Giessen (Germany). Participating countries: Germany, Sweden, Poland

#### Seventh call 2013

The seventh joint call on Small-scale heat and power production from biomass was launched on 1st March 2013.

Four countries are participating (Sweden, Germany, Poland and the United Kingdom) with a total budget of EUR 3.6 million.





ERA-PG

### **ERA-NET Plant Genomics**



#### PROJECT DETAILS

Perio	d	From To	2004-01-01 31-12-2009		
Follow-on ERA-NET		ERA-CAPS			
Project reference		510189			
Prog acroi	ramme 1ym	FP6-CC	OORDINATION		
Call i	identifier	ERA-NET/1/CA-SSA-A			
Title		ERA-NE	T Plant Genomics		
Cont	ract type	Coordir	nation Action		
Total cost EU contribution		€ 2 900 000 € 2 900 000			
	ber of cipants	17			
Coordinator		The Netherlands Organisation for Scientific Research NWO, The Netherlands			
Cont	act person	T +31	ne Bunthof 317 480996 :ine.bunthof@wur.nl		
Webs	site	www.e	rapg.org		
Parti	cipants				
AT	Austrian Federal	Ministry	/ for Science and Research BMWF		
BE	Department of Economy, Science and Innovation Flemish Government EWI				
CH	Swiss National Science Foundation SNSF				
DE	German Research Foundation DFG				
DE	Jülich Research Centre JUELICH				
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
ES	Ministry of Science and Innovation MICINN				
FI	Academy of Finland AKA				
FR	French National Institute for Agricultural Research INRA				
FR	National Agency for Research ANR				
IL	Ministry of Agriculture and Rural Development MOARD				
IT	Ministry of Education, University and Research MIUR				
NIL	The Netherlands Organisation for Scientific Research/				

- NL The Netherlands Organisation for Scientific Research/ Netherlands Genomics Initiative NWO/NGI
- NO Research Council of Norway RCN
- PT Foundation for Science and Technology FCT
- SE The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- UK Biotechnology and Biological Sciences Research Council BBSRC

## **Objective**

The main endeavour of ERA-PG was to structure the scientific and technological basis for plant genomics programmes in Europe and develop the common knowledge base necessary for the development of coherent transnational policy. Plants are essential to human life. Either directly or indirectly, plants produce all of the world's food. They also provide materials, pharmaceuticals and offer renewable sources of energy. In European industry and agriculture, plants have a central role. Studying their genomes is essential to drive innovation, stimulate commercial exploitation and keep Europe's economy healthy.

The ERA-NET Plant Genomics began its work in 2004 with an original duration of four years, but was later prolonged for two years more by an amendment to the contract. It started with twelve member organizations from eleven countries, and since then has grown from strength to strength. ERA-PG concentrated on creating a stimulating and fruitful environment for European plant genomics together with the scientific community.

ERA-PG's main objectives are the following:

- Coordination and cooperation between
   national research programmes.
- Creating a European network.
- Sustaining Europe's competitive position in agro-food.
- Strengthening the foundation of plant genomics research in Europe.

- Laying a cornerstone for the knowledgebased bioeconomy (KBBE).
- Developing and executing joint (research) programmes and calls.

## Consortium

FRA-PG started in 2004 with twelve member organizations from eleven countries. On 1 January 2006 the network was contractually enlarged by four countries and later in 2006 Bulgaria jointed as affiliate, followed by Canada in 2007. Affiliate partners are: Ministry of Education and Science MES (Bulgaria), Agriculture and Agri-Food Canada AAFC (Canada), Genome Alberta (Canada). Genome Prairie/Manitoba Agriculture. Food and Rural Initiatives. National Research Council NRC (Canada) and Plant Biotechnology Institute PBI (Canada). As a result of the network's commitment to extending collaboration to more countries with plant genomics programmes in and beyond Europe, ERA-PG comprised at the end of its contracting period in 2009 23 partners from 17 countries.

## Mapping and scoping activities

ERA-PG started out with mapping the research landscape and the programmes in plant genomics. Country reports were made of each ERA-PG partners, as well as about some major players beyond Europe. In the development of the joint calls the partners exchanged good practices. Another major endeavour of ERA-PG was on IPR issues within transnational projects, including projects that are public-private partnerships. To this aim ERA-PG commissioned a team of national (genomics) IPR experts to develop a legal framework for transnational research. The framework was tested in the projects of the joint calls and proved very useful. Furthermore, ERA-PG conducted forward-looking activities, in particular through scoping workshops with plant scientists organised by funders of the ERA-PG consortium. During its course, ERA-PG maintained close contacts with other ERA-NETs, particularly those in the area of the Knowledge Based Bioeconomy (KBBE), as well as with the European Plant Science Organisation (EPSO) and the European Technology "Platform Plants for the Future". Cooperation between networks proved of great value and importance in building the ERA in plant sciences and related fields.

## Joint calls

ERA-PG was a front runner in the ERA-NET community and its joint research programme is among the largest joint calls organised by ERA-NETs. Two joint calls were organised by ERA-PG consortium in 2006 and 2008. All together, these two calls resulted in 41 transnational research projects with a total budget of EUR 55 million. ERA-PG organised project status seminars in association with the European Plant Genomics Meetings (Plant GEMs) in 2007 and 2009 to bring together the owners and managers of national and regional plant genomics programmes, researchers from academia and industry and the policy makers from the ministries, councils and agencies that fund the projects.

#### First call 2006

With the aim of promoting European collaboration, scientific excellence, synergy and cohesion, on 1 February 2006 ERA-PG issued its first transnational call for collaborative research proposals "Structuring Plant Genomic Research in Europe". The call was addressed to plant genomic researchers in Flanders (Belgium), Denmark, Finland, France, Germany, Italy, The Netherlands, Norway, Portugal, Spain and the United Kingdom.

The call was divided into two sub calls:

Sub call A – "Broad Call for Publicly Funded Research in Plant Genomics" – and sub call B, "Trilateral Partnership and Beyond; the Future for European Public-Private Partnerships in Plant Genomics".

More than 100 applications involving a total of over 500 applicants were submitted. In total, 29 projects were granted. In the sub call A, the 15 highest ranked proposals were granted with a total budget of nearly EUR 21 million . In the sub call B, 14 proposals of which 13 publicprivate partnerships were granted with a total budget of EUR 16.6 million. The call received a lot positive feedback from both the academic and the industrial community, particularly for its bottom-up approach, transparency, openness to small consortia and low bureaucratic burden. The scientific community also indicated that it would like to see the collaboration extended to more countries.

Sub call A – "Broad Call for Publicly Funded Research in Plant Genomics".

Projects funded:

- 1. ACT Genome wide analysis of auxincytokinin cross-talk. Coordinator: University of Helsinki (Finland). Participating countries: Germany, Finland, United Kingdom
- ARelatives Leveraging the genome sequences of two Arabidopsis relatives for evolutionary and ecological genomics. Coordinator: Max Planck Institute for Developmental Biology (Germany). Participating countries: Belgium, Germany, Denmark, Finland, United Kingdom
- BARCODE Genomics-assisted dissection of barley morphology and development. Coordinator: Scottish Crop Research Institute (United Kingdom). Participating countries: Germany, Italy, United Kingdom
- CISCODE Conservation and diversity in transcriptional regulation of developmental processes in crop and model plant species. Coordinator: Wageningen University and Research Centre (The Netherlands). Participating countries: Belgium, Germany, Italy, The Netherlands, United Kingdom.
- Effectoromics Understanding host plant susceptibility and resistance by indexing and deploying obligate pathogen effectors. Coordinator: University of Warwick (United Kingdom). Participating countries: Germany, The Netherlands, United Kingdom
- EXBARDIV Genomics-Assisted Analysis and Exploitation of Barley Diversity. Coordinator: University of Dundee (United Kingdom). Participating countries: Germany, Denmark, Finland, Italy, United Kingdom
- 7. MultiStress Multiple Stress Responses and Adaptations. Coordinator: University

of Copenhagen (Denmark). Participating countries: Denmark, Finland, Italy, The Netherlands, Norway

- Plant Stem Cell Network Integrated analysis of stem cell function in plant growth and development. Coordinator: Cardiff University (United Kingdom). Participating countries: Denmark, Finland, The Netherlands, Portugal, United Kingdom
- PRECIAR Proteomics analysis of endosomal compartments in Arabidopsis. Coordinator: University of Tubingen (Germany). Participating countries: Germany, Spain, The Netherlands, United Kingdom
- 10. RLPRLKs RLP- and RLK-mediated innate immune responses in Arabidopsis and tomato triggered by pathogen-associated molecular patterns (PAMPs) and a virulence factors (Avrs). Coordinator: Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: Germany, Spain, Italy, The Netherlands, United Kingdom
- 11. Seeds for Growth Identification of transcriptional programs controlling seed growth and development from Arabidopsis to rice. Coordinator: University of Strassbourg (France) (a researcher that moved from a German institute and was still funded by DFG the moneyfollows-researcher principle); Participating countries: Germany, Italy, Norway.
- 12. STRESSNET Regulation of the plant metabolic network during stress. Coordinator: Max Planck Institute for Molecular Plant Physiology (Germany). Participating countries: Germany, Denmark, United Kingdom
- STRESSsRNA Genome-wide analysis of short RNAs as modulators in dehydration stress tolerance using tolerant and genetic model systems. Coordinator: University of Bonn (Germany). Participating countries: Germany, Portugal, United Kingdom
- TRANSLEG Using translational genomics to underpin germplasm improvement for complex traits in crop legumes. Coordinator: University of Grassland and Environmental Research (United Kingdom). Participating

countries: Germany, The Netherlands, United Kingdom

15. TRITOP - Thrips resistance in tomato plants. Coordinator: University of Leiden (The Netherlands). Participating countries: Germany, The Netherlands, United Kingdom

Sub call B - "Trilateral Partnership and Beyond; the Future for European Public-Private Partnerships in Plant Genomics".

Projects funded:

- 1. ARABRAS Identifying relevant candidate genes for improving plant growth under abiotic stress conditions in Brassica crops. Coordinator: Max Planck Institute for Plant Breeding Research (Germany). Participating countries: Germany, Spain, France
- 2. Bioregulators Identification of molecular markers for the detection of bio-regulators that enhance plant productivity and quality. Coordinator: Bayer CropScience AG (Germany). Participating countries: Germany, Spain, France
- CEREHEALTH Securing a sustainable production of food and feed - a functional genomic-guided strategy for improving biotic stress tolerance in cereals. Coordinator: KWS Saat AG (Germany). Participating countries: Switzerland, Germany, Spain, France
- COGS Comparative genomics of shoot branching. Coordinator: University of York (United Kingdom). Participating countries: Germany, Spain, France, The Netherlands, United Kingdom
- EUCANET Eucalyptus genomics research network for improved wood properties and adaptation to drought. Coordinator: CNRS and University Paul Sabatier Mixed Unit of Research (France). Participating countries: Spain, France, Portugal
- 6. FROSTY Cold tolerance for the future: the CBF genes and beyond. Coordinator: INRA Genetic and Plant Breeding Station (France). Participating countries: Germany, Spain, France
- 7. GENBLAST Deciphering the genetic basis of field resistance to blast in European rice

varieties to improve breeding for durable resistance. Coordinator: Instituto Valenciano de Investigaciones agrarias (Spain). Participating countries: Spain, France

- GRASP GRAPE WINE Genomic researchassisted breeding for sustainable production of quality grapes and wine. Coordinator: Julius Kuehn-Institute (Germany). Participating countries: Germany, Spain, France, Italy, The Netherlands, Portugal
- LEGRESIST Exploiting genetic variability of resistance genes in major European food legumes to improve varieties for sustainable agriculture. Coordinator: GENCPro GmbH (Germany). Participating countries: Germany, Spain, France, Portugal
- MELRIP Understanding the climacteric vs. non-climacteric fruit ripening mechanisms in melon using transcriptomic, metabolomic and reverse genetic approaches. Coordinator: Consejo Superior de Investigaciones Científicas (Spain). Participating countries: Germany, Spain, France
- 11. MuExpress Isolation of key genes for kernel development through the identification, in a collection of 300 mutant lines, of Mutator insertions in genes expressed in the maize seed. Project leader: University of Alcalá de Henares (Spain). Participating countries: Germany, Spain, France
- 12. ProteinStorage An integrated genomic and proteomic characterization of induced seed storage organelles for the optimal production of biopharmaceuticals in plants and plant cells. Coordinator: University of Lleida (Spain). Participating countries: Germany, Spain, France
- 13. RCA Genomics International reference centre for the genomics and diagnosis of viruses with small circular DNA. Coordinator: University of Stuttgart (Germany). Participating countries: Germany, Spain, France
- 14. TRIESTER Trilateral initiative for enhancing salt tolerance in rice. Coordinator: Consejo Superior de Investigaciones Científicas (Spain). Participating countries: Germany, Spain, France

#### Second call 2008

In 2008, the ERA-PG consortium organised a single joint call focused on the integration of new technologies in plant science. The funders were from Austria, Flanders (Belgium), Finland, Germany, Israel, Portugal, the Netherlands and the United Kingdom. Funding bodies in Canada joined this initiative and became affiliated partners of the ERA-PG funding body network. Topics included yield improvement, resistance to biotic stresses, quality traits, adaptation to effects of climate change and sustainable agriculture. Among the 54 submitted proposals, 12 were granted with a total budget of EUR 16.5 million.

Projects funded:

- ASSYST Associative expression and systems analysis of complex traits in oilseed rape/canola. Coordinator: University of Giessen (Germany). Participating countries: Canada, Germany, United Kingdom
- BLOOM-NET The meristematic regulatory network controlling the floral transition. Coordinator: Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: Germany, Israel, The Netherlands, United Kingdom
- CROPP Calcium Regulation of Plants Productivity. Coordinator: Ludwig-Maximilians-Universität München (Germany). Participating countries: Austria, Germany, Israel, United Kingdom
- 4. PASAS Plant Alternative Splicing and Abiotic Stress. Coordinator: University of Dundee (United Kingdom). Participating countries: Austria, Israel, Poland, United Kingdom
- PathoNet Signaling to plant immunity responses. Coordinator: University of Vienna (Austria). Participating countries: Austria, Germany, United Kingdom
- 6. PcG-code Application of genomics to

dissect Polycomb-group protein mediated control of plant development. Coordinator: University of Vienna (Austria). Participating countries: Germany, The Netherlands, United Kingdom

- POPsRNA Investigating the role of short RNAs on wood formation, cambium development and adaptation of poplar tree. Coordinator: University of East Anglia (United Kingdom). Participating countries: Finland, The Netherlands, United Kingdom
- PROSIG Plant Receptor-like Kinases in ROS Signaling. Coordinator: University of Helsinki (Finland). Participating countries: Germany, Denmark, Finland, The Netherlands
- PRR-CROP Pattern recognition receptors: discovery, function and application in crops for durable disease control. Coordinator: Sainsbury Laboratory (United Kingdom). Participating countries: Germany, France, The Netherlands, United Kingdom
- TomQML Integrating genetics and high throughput genomics to identify genes underlying tomato quantitative trait loci (QTL) for metabolites that influence fruit quality. Coordinator: University of Nottingham (United Kingdom). Participating countries: Germany, France, Israel, The Netherlands, United Kingdom, United States
- 11. TritNONHOST Integrative genomic and genetic analysis of nonhost resistance across Triticeae species. Coordinator: Leibniz Institute of Plant Genetics and Crop Plant Research (Germany). Participating countries: Germany, The Netherlands, United Kingdom
- 12. vSEED The virtual seed: Combined mathematical, engineering and postgenomics comparative biology to model the systems biology of seed dormancy, after-ripening and germination. Coordinator: University of Nottingham (United Kingdom). Participating countries: Germany, The Netherlands, United Kingdom



European Commission





European Research Area



From 2006-02-01

То

2011-02-28

# **ERASysBio**

Towards a European Research Area for Systems Biology



## **Objective**

With the advance of computer technology and the success of high-throughput "-omics" research in life sciences, the in silico modelling of complex biological processes has become a distinct scientific vision. In the first place, the USA and Japan have launched ambitious research initiatives to support the convergence of both technology fields into a new discipline called systems biology (SB). In the next decades, SB will contribute to new key enabling technologies in the bio-industry that will give rise to more individualized and multi-component biomedicines, computer-aided drug screening, more sophisticated animal and plant breeding programmes, etc.

In contrast to other life science areas. programme funding in SB is very young in Europe and still fragmented, but nevertheless ready for restructuring. Thus, ERASysBio aims at:

- Cooperation/coordination of SB-relevant national programme (part)s in 12 partner countries: three other countries that do not yet have a running activity are affiliated;
- Internal market for SB with improved mobility of knowledge, resources, personnel, etc;
- SB research & training agenda as part of a European research policy;
- Strengthen Europe's competiveness in life sciences by exploiting the SB approach.

The consortium consists of senior programme

#### PROJECT DETAILS

## Period

Follow-on ERA-NET ERASys APP and ERA-NET PLUS ERASysBio\* Project reference 23212 Programme acronym EP6-IST Call identifier FRA-NET/1/CA-SSA-D Title Towards a European Research Area for Contract type Total cost EU contribution Number of participants 16

Systems Biology – A Transnational Funding Initiative to Support the Convergence of Life Sciences with Information Technology & Systems Sciences Coordination Action € 2 950 000 € 2 950 000

Jülich Research Centre, JUELICH, Germany Stefan Lampel E s.lampel@fz-iuelich.de

## www.erasysbio.net

Website Participants

Coordinator

Contact person

- AT Federal Ministry of Science and Research BMWF
- BE National Fund for Scientific Research FRS-FNRS
- DE Jülich Research Centre JUELICH
- DE Federal Ministry of Education and Research BMBF
- ES Ministry of Science and Innovation MICINN
- FI Academy of Finland AKA
- National Centre for Scientific Research CNRS FR
- FR National Agency for Research ANR
- IL Israel Science Foundation ISF
- Autonomous Province of Trento (PAT) Department of IT University and Scientific Research
- NI The Netherlands Organisation for Scientific Research NWO
- The Netherlands Organisation for Health Research and NI Development ZonMw
- NO Research Council of Norway RCN
- Russian Foundation for Basic Research RFBR RU SI
- Ministry of Higher Education, Science and Technology MHEST UK Biotechnology and Biological Sciences Research Council BBSRC

managers of the leading public funding bodies, who will - in interaction with high-level scientists, industry, and other stake-holders - address among others:

- Knowledge exchange on programme content and implementation;
- Inventory of research and training sites;
- Analysis of cooperation potentials and new challenges;
- Joint innovation strategy to stimulate economic exploitation;
- Contractual & legal framework for a transnational funding scheme;
- Joint team of administrative personnel for executing transnational activities;
- Transnational funding programme (three funding rounds with the early pilot call SysMo);
- Perspectives for international cooperation;
- SB science & society.

## Consortium

The ERASysBio Coordination Action springs from the Specific Support Action (SSA) EUSYSBIO that has already laid the foundations of this new network. It brings together funding agencies from 13 countries including Israel and Russia. Luxembourg and Switzerland joined later as associate partners.

## Mapping and scoping activities

The ERASysBio Coordination Action builds on national programmes in systems biology and on several European efforts springing from EUREKA, the ESF, the EMBL and several other EU-supported projects. The first task was the collection of information about projects and programmes under way in the partner countries and their plans for the future. Next, the partners drafted a research agenda in systems biology for the period 2006-2008 outlining topics of common interest and potential for future collaboration. In parallel, the partners paved the way for new transnational funding initiatives by setting up the appropriate contractual arrangements and a joint funding scheme. Three joint calls from which one was transferred to an ERA-NET Plus activity resulted from this work.

The consortium participated in the founding of several other initiatives like the ERA-NETS ERASynBio and ERASysAPP, the official successor of ERASysBio, and the CSA Systems Medicine (CASyM). Furthermore, the partners supported the networking of European Systems Biology centres that finally let to the ESFRI ISBE (Infrastructure for Systems Biology Europe) project. Additionally, a series of summer schools for data management addressed the needs of young researchers.

## Joint calls

#### First call 2005

Pilot call

The first joint call - the pilot initiative SysMO - was launched as a transnational activity for the funding of research on Systems Biology in Micro-organisms in 2005. SysMO is financed by the Federal Ministry of Education and Research in Germany (BMBF), the Federal Ministry of Science and Research (BMWF) in Austria, the Netherlands Organisation for Scientific Research (NWO), the Research Council of Norway (RCN), the Biotechnology and Biological Sciences Research Council (BBSRC) of the United Kingdom and the Ministry of Education and Science (MEC, later MICINN) in Spain.

Under this initiative 11 consortia, including 91 groups across Europe, were funded from March 2007 until summer 2010 with a financial commitment across all partners of more than EUR 28 million. The progress of the research consortia was evaluated annually during the SysMO conferences: The Kick-Off Meeting took place in Bad Honnef (Germany) in 2007 and was followed by conferences in Edinburgh (United Kingdom, 2008), Vienna (Austria, 2009), and Noordwijkerhout (The Netherlands, 2010).

The SysMO funding partners have embarked on a joint effort to involve all groups from the 11 consortia in a common data management, storage and sharing strategy. The SysMO Data Management Group (DMG) is composed of representatives from all SysMO projects. The DMG focused on communication, data storage, data and model exchange/sharing and recommended funding of a data management project. This was realised by BBSRC and BMBF. As a result, the project SysMO-DB developed a common data management system called SEEK.

#### Projects funded:

- 1. BaCell-SysMO The transition from growing to non-growing Bacillus subtilis cells - A systems biology approach. Coordinator: University of Greifswald (Germany) Participating countries: Germany, United Kingdom, France, The Netherlands
- COSMIC Systems Biology of Clostridium acetobutylicum - a possible answer to dwindling crude oil reserves. Coordinator: University of Ulm (Germany). Participating countries: Germany, The Netherlands, United Kingdom
- SUMO Systems Understanding of Microbial Oxygen Responses. Coordinator: University of Sheffield (United Kingdom). Participating countries: United Kingdom, Germany, The Netherlands
- KOSMOBAC Ion and solute homeostasis in enteric bacteria: an integrated view generated from the interface of modelling and biological experimentation. Coordinator: University of Aberdeen (United Kingdom). Participating countries: United Kingdom, Germany, The Netherlands, Spain
- SysMO-LAB Comparative Systems Biology: Lactic Acid Bacteria. Coordinator: University of Amsterdam (The Netherlands). Participating countries: The Netherlands, Germany, Norway, United Kingdom, South Africa
- PSYSMO Systems analysis of biotech induced stresses: towards a quantum increase in process performance in the cell factory Pseudomonas putida. Coordinator: Helmholtz Centre for Infection Research Braunscheig (Germany). Participating countries: Germany, United Kingdom, Spain
- SCaRAB Systems Biology of a genetically engineered Pseudomonas fluorescens with inducible exo-polysaccharide production:

analysis of the dynamics and robustness of metabolic networks. Coordinator: Norwegian University of Science and Technology (Norway). Participating countries: Norway, Germany, United Kingdom

- 8. MOSES MicroOrganism Systems Biology: Energy and Saccharomyces cerevisiae. Coordinator: University of Manchester/NISB (United Kingdom), Free University, Amsterdam (The Netherlands). Participating countries: United Kingdom, The Netherlands, Austria, Germany, Norway
- TRANSLUCENT Gene interaction networks and models of cation homeostasis in Saccharomyces cerevisiae. Coordinator: Autonomous University of Barcelona (Spain). Participating countries: Spain, Germany, The Netherlands, Austria, Czech Republic
- STREAM Global metabolic switching in Streptomyces coelicolor. Coordinator: University of Warwick (United Kingdom). Participating countries: United Kingdom, Germany, The Netherlands, Spain, Norway
- 11. SulfoSYS Silicon cell model for the central carbohydrate metabolism of the archaeon Sulfolobus solfataricus under temperature variation. Coordinator: University of Bergen (Norway). Participating countries: Norway, The Netherlands, Germany, United Kingdom

#### Second call

The second call in the ERA-NET ERASysBio is the ERA-NET Plus ERASysBio+ (see above).

#### Third call 2010

The third call SysMO2 is a continuation of the pilot call. The eight projects (seven research and one data management) jointly funded by five partners (Germany, Spain, The Netherlands, Norway and United Kingdom) under the SysMO2 call comprise 50 working groups from seven countries (one group each from Denmark and Czech Republic) with a total funding of EUR 17.7 million. The projects have started in spring 2010 and end in 2013.

The Kick-Off Meeting was combined with the SysMO conference 2010 in Noordwijkerhout (The Netherlands) and followed by annual evaluation conferences in Oxford (2011), Tenerife (2012) and Berlin (2013).

The central data management system (and project) was successfully continued and meanwhile transferred into various other initiatives (e.g. Virtual Liver Network). The SysMO-DB project, all SysMO 1 and 2 research consortia and the funding partners agreed on the SysMO data sharing policy. This policy defines rules for the usage of the data management system as well as for sharing and publication of data. It is based on OECD suggestions and is open for application in future funding schemes.

#### Projects funded:

- BaCell-SysMO 2 Modelling carbon core metabolism in Bacillus subtilis – Exploring the contribution of protein complexes in core carbon and nitrogen metabolism. Coordinator: University of Greifswald (Germany). Participating countries: Germany, The Netherlands, United Kingdom
- COSMIC 2 Systems biology of the butanolproducing Clostridium acetobutylicum: new source of biofuel and chemicals. Coordinator: University of Ulm (Germany). Participating countries: Germany, The Netherlands, United Kingdom
- 3. Noisy-Strep The role of transcriptional fidelity and processivity on the noise of

transcription, and its consequences for phenotypic bistability in Streptococcus pneumoniae. Coordinator: University of Groningen (The Netherlands). Participating countries: The Netherlands, United Kingdom, Germany

- SilicoTryp The Silicon Trypanosome. Coordinator: University of Groningen (The Netherlands). Participating countries: The Netherlands, United Kingdom, Germany
- SUMO2 Systems Understanding of Microbial Oxygen-Dependent and Independent Catabolism. Coordinator: University of Sheffield (United Kingdom). Participating countries: United Kingdom, Germany, The Netherlands
- SysMO-LAB2 Comparative Systems Biology of Lactic Acid Bacteria. Coordinator: University of Amsterdam (The Netherlands). Participating countries: The Netherlands, Germany, Norway, United Kingdom, Denmark
- TRANSLUCENT-2 Modelling ion homeostasis in the yeast Saccharomyces cerevisiae. Coordinator: Autonomous University of Barcelona (Spain). Participating countries: Spain, Germany, The Netherlands, Czech Republic
- SysMO-DB Finding, sharing and exchanging Data, Models and Processes in Systems Biology. Coordinator: University of Manchester (United Kingdom). Participating countries: United Kingdom, Germany





#### PROJECT DETAILS

Period	l	From To	2006-05-01 2010-07-31	
Follow-on ERA-NET		EUPHRESCO II		
Projec	t reference	CA 036	5212	
Progra	amme /m	FP6-COORDINATION		
Call id	entifier	ERANET/1/CA-SSA-E		
Title		Coordination of European Phytosanitary (Statutory Plant Health) Research		
Contra	act type	Coordir	nation (or networking) action	
Total ( EU cor	cost ntribution	€ 2 633 991 € 2 633 991		
Numb partici		22		
Coordinator		Department for Environment, Food & Rural Affairs, Food and Environment Research Agency (DEFRA-FERA), United Kingdom		
Conta	ct person		man (0)1904 455346 inman@defra.gsi.gov.uk	
Websi	te	www.e	uphresco.org	
Partic	ipants			
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLEUW			
AT	The Austrian Agency for Health and Food Safety AGES			
BE	Institute for Agricultural and Fisheries Research ILVO			
BE	Federal Public Service Health, Food Chain Safety and Environment FPS			
BG	The National Service for Plant Protection NSPP			
CY	Agricultural Research Institute ARI			
CZ	Ministry of Agriculture NAAR			
DK	Directorate for Food, Fisheries and Agri-business DFFAB			
FI	Ministry of Agriculture and Forestry MMM			
FR	Ministry of Agriculture and Fishery, General Food Directorate MAP-DGAL			
FR	French National Institute for Agricultural Research INRA			
DE	Federal Ministry of Food, Agriculture and Consumer Protection $\ensuremath{BMELV}$			
DE	Julius Kuhn Institute JKI			
IE	Department of Agriculture, Fisheries and Food DAFF			
IT	Ministry of Agricultural, Food and Forestry Policies MiPAAF			
NL	Ministry of Economic Affairs EZ			
NL	The Netherlands Plant Protection Service NPPS			
SI	Ministry of Agriculture, Forestry and Food MAFF			
ES	National Institute for Agriculture, Technology and Food Research INIA			
CH	Federal Office for Agriculture FOAG			

- TR Ministry of Agriculture and Rural Affairs, General Directorate of Agricultural Research MARA/GDAR
- UK Department for Environment, Food & Rural Affairs, Food and Environment Research Agency DEFRA-FERA

# **EUPHRESCO I**

Coordination of European Phytosanitary (Statutory Plant Health) Research



## **Objective**

EUPHRESCO is a project focused on research policy development and implementation in the field of statutory and emerging plant pests, diseases and invasive species (excluding GMO's). Statutory plant pests and diseases can cause serious economic and environmental damage and today there are multiple threats to plant health that must be addressed. Over the last century, the rate of introduction and establishment of new, economically or environmentally damaging plant pests and diseases has increased steadily as a result of the expansion in global trade of plant material. Unfortunately, this has also simultaneously opened the door to unwanted imports such as foreign pests, disease and invasive plant species which threaten agriculture and the environment alike. Whilst the regulatory policy designed to protect European agriculture and environment from these exotic pest threats is determined at the EU level, the research that underpins this policy is undertaken primarily at the national level and there is little coordination of these programmes. Increased olobal trading and continued enlargement of the EU are likely to increase the risks from exotic plant pests and pathogens. Improved coordination and collaboration between national research programmes is therefore essential to ensure effective support of EU policy and its implementation.

EUPHRESCO's broad aim is to increase cooperation and coordination of national

phytosanitary (statutory plant health) research programmes at the EU level through networking of research activities and joint activities (e.g. transnational research commissioning) between national programmes. It has three over-arching strategic goals:

- to develop phytosanitary (statutory plant health) research policy at the EU-wide level;
- optimise the research provision that underpins EU quarantine plant health policy development and policy implementation;
- increase the capacity of European phytosanitary science and research, in order to prevent the disappearance of EU expertise in this field and maintain Europe's competitiveness in the global market.

Whilst bringing together all existing and future key players EUPHRESCO will support the development of common agendas based on identified, shared priorities. It will help create a long-term, sustainable network of phytosanitary research programme funders and improve the interaction with stakeholders and industry bodies at national and EU levels. It will help build a European phytosanitary research capacity and establish links between the Network and key research funding bodies around the world.

## Consortium

The EUPHRESCO Network has expanded from 23 partners in 17 countries (2006-2010) to 31 partners in 22 countries with 12 European Observer countries and two international Observers. Its partners are leading organisations involved with funding phytosanitary research in Europe. Observers are: Ministry of Agriculture, Plant Health Department EVPM (Estonia), Ministry of Rural Development and Food, Department of Phytosanitary Control (Greece), Ministry of Agriculture and Rural Development, Department for Plant Protection and Soil Conservation (Hungary), Ministry of Agriculture ZUM (Lithuania), Plant Health Department, Ministry of Rural Affairs and the Environment (Malta), Direccao Geral de Porteccao das Culturas DGPC (Portugal).

## Mapping and scoping activities

Seventeen countries and 24 participants (all funding and/or managing phytosanitary research programmes) are involved in EUPHRESCO: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, The Netherlands, Slovenia, Spain, Switzerland and Turkey, United Kingdom. All the participants except one entered a total of 35 different programmes and 260 phytosanitary research projects.

The current annual budget for nationally-funded phytosanitary research in 2007 was about EUR 15.72 million; EU-funded research was estimated at about EUR 1.2 million per year on average, so national funds accounted for over 90% of the total phytosanitary research funding.

Strengths, weaknesses, overlaps, gaps and opportunities were analysed. Most national programmes undertook very applied research, which was potentially both a strength and a weakness. Pooling resources might allow more effective commissioning of such applied research as well as providing opportunities for more strategic or fundamental research. Some potential overlaps were identified, highlighting opportunities for reducing duplication of work and optimising resources. In general, there was a good balance between the pest groups studied, though invasive alien species (especially invasive plants) were under studied, as were environmental plant health issues. Clear benefits of better coordination of phytosanitary research at the European level were identified and potential strategies for achieving this were considered.

Due to relatively limited national budgets, there was a continuing need for EU funding of phytosanitary research, especially for morelarger and more-strategic projects. There was a clear need to coordinate nationallyfunded research, transnational research (via EUPHRESCO) and EU-funded research to make best use of resources and to support EU Plant Health policy.

Management of the programmes and

projects was described for each participant through various project initiation stages: project proposals/applications; evaluation of proposals; project management; and research contracts. Most of the public governmental and non-governmental research providers were listed for each country. Information for future transnational activities was also collated, especially the potential barriers to transnational activities and initial ideas on future research priorities. The mapping also tried to gather information from non-partner countries, mainly countries from EPPO and not involved in EUPHRESCO. Four countries provided consistent data: Estonia, Hungary, Poland and Ukraine. Morocco partially completed the questionnaire, but only the section regarding future research priorities. From these non-partner responses, 11 programmes and 72 projects were identified. Future research priorities were also provided for these non-partner countries.

In conclusion, phytosanitary transnational research activities were almost non-existent in Europe, except through EU-funded phytosanitary projects, at the start of the EUPHRESCO-I ERA-NET Project. EUPHRESCO therefore has a clear opportunity to: facilitate cooperation through its current and future activities; optimise the use of national resources through sharing information, reducing duplication and pooling funds; build phytosanitary science capability and capacity; and better support European phytosanitary (Plant Health) policy.

## Joint calls

#### First call 2008

Pilot call

EUPHRESCO held pilot calls for Phytosanitary Research in 2008. These pilot calls intended to:

- Test the trans-national funding mechanisms, processes and tools developed within the EUPHRESCO ERA-NET Project through short, specific research projects.
- Build confidence in trans-national phytosanitary research funding and facilitate further joint calls in the future.

- Produce research outputs that will support European Plant Health policy and operations.
- Contribute towards maintaining and developing European phytosanitary science capability.

EUPHRESCO partners are providing in excess of one million euros funding for these pilot calls via two competitive funding mechanisms, the virtual common pot and real common pot. Additionally, a non-competitive funding mechanism (direct commissioning) was also piloted.

In addition to the initial pilot projects, the EUPHRESCO commissioned a second round of non-competitive projects between 2009 and 2010.

Projects funded:

- DEP Detection and epidemiology of Pospiviroids. Coordinator: Aarhus University (Denmark). Participating countries: Austria, Denmark, France, Germany, The Netherlands, Slovenia, United Kingdom
- AMBROSIA Strategies for Ambrosia artemisiifolia control. Coordinator: Institute of Integrated Pest Management, Aarhus University (Denmark). Participating countries: Denmark, Germany, Slovenia, Switzerland
- ERWINDECT Diagnostic tools for the detection of fire blight, Erwinia amylovora. Coordinator: Austrian Agency for Health and Food Safety (AGES), Institute of Plant Health (Austria). Participating countries: Austria, Spain, Switzerland, France
- PEKID Phytosanitary efficacy of kiln drying. Coordinator: JKI (Germany). Participating countries: Austria, Germany, Italy, Slovenia
- 5. PROPSCAPH Evaluating the risk of spread of Scaphoideus titanus with propagation material. Coordinator: UP-CRS (Switzerland). Participating countries: France, Italy, Slovenia, Switzerland
- DeCLAIM Decision support systems for control of alien invasive macrophytes. Coordinator: Ministry of Economic Affairs EZ (The Netherlands). Participating countries:

(Fusarium circinatum) cause of pitch pine

canker. Coordinator: Ministry of Agriculture,

Food and Forestry (France). Participating

countries: Denmark, France, Italy, The

risk

Coordinator: FERA (United Kingdom). Participating countries: Austria, Belgium,

management.

fallax.

Netherlands, Spain, United Kingdom

and

Denmark, Germany, Italy

detection

13. NCM2 - Anoplophora longhorn beetle

14. NCM2 - Detection and management of

chitwoodi and Meloidoovne

the quarantine nematodes Meloidogyne

The Netherlands, United Kingdom

- Q-AMP Development of validated procedures for whole genome amplification of DNA/RNA for quarantine plant pathogens and pests. Coordinator: Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: The Netherlands, United Kingdom
- 8. NCM1 Ring testing of diagnostic methods for the identification of potato cyst nematodes and assessing resistance of potato cultivars. Coordinator: PPS (The Netherlands), ILVO (Belgium). Participating countries: Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Hungary, The Netherlands, Slovenia, Spain, Turkey, United Kingdom
- NCM1 Ring test on diagnostic methods for Pantoea stewartii ssp. stewartii, maize bacterial blight. Coordinator: DGAL (France). Participating countries: Austria, France, Germany, Hungary, Turkey, United Kingdom
- 10. NCM1 Interlaboratory tests for the detection of Clavibacter michiganensis ssp. sepedonicus (potato ring rot) and Ralstonia solanacearum (potato brown rot). Coordinator: ILVO (Belgium). Participating countries: Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Malta, The Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Turkey, United Kingdom
- 11. NCM1 Validation of diagnostic methods for the detection and identification of whitefly-transmitted viruses of regulatory or quarantine concern to the EU. Coordinator: FERA (United Kingdom). Participating countries: Belgium, Bulgaria, Cyprus, Czech Republic, France, Greece, New Zealand, The Netherlands, United Kingdom
- 12. NCM2 Development and validation of diagnostic methods for Gibberella circinata

elgium, Bulgaria, CzechCoordinator: NPPS (The Netherlands), ILVOGermany, Hungary, The<br/>renia, Spain, Turkey,(Belgium). Participating countries: Austria,<br/>Belgium, Bulgaria, Czech Republic, France,<br/>Germany, Slovenia, The Netherlands,<br/>United Kingdom, Turkeyon diagnostic methods15 NCM2til age staugetij, range15 NCM2

- NCM2 Phylogenetic identification of quarantine bacterial plant pathogens. Coordinator: FERA (United Kingdom). Participating countries: Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Italy, The Netherlands, Portugal, Slovenia, Spain, United Kingdom
- 16. NCM2 Interlaboratory comparison and validation of detection methods for phytoplasmas of phytosanitary concern in European orchards. Coordinator: DAR (Spain). Participating countries: Austria, Belgium, Bulgaria, Czech Republic, Germany, Italy, The Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Turkey, United Kingdom
- NCM2 Development of pathotypespecific PCR tests for the identification of Synchytrium endobioticum pathotype 1. The Netherlands Plant Protection Service NPPS, Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: funding consortium under development.



European Commission





European Research Area



# **EUROTRANS-BIO**

EUROpean network of TRANSnational collaborative RTD for SMEs projects in the field of BIOtechnology



## **Objective**

Within the world-wide competition, European Biotechnology SMEs are facing a challenge to gain a critical size on the market in terms of RTD project portfolio, capitalisation, and scientific and managerial excellence. Currently, national RTD programs for biotechnology SMEs and public research laboratories do exist in many EU member states. However, transnational funding within the national/regional programs is not common. In the European Community, transnational public-private partnerships could achieve synergy effects, reduce risks and costs in R&D projects and thus gain benefits in competitiveness.

The aim of the EUROTRANS-BIO project is to commit ministries and government agencies from Member States (Austria, Finland, France, Germany, The Netherlands, Spain/Basque Country) in the design and the implementation of a truly integrated transnational RTD program. Such an activity will develop best practices, establish cross-border partnerships between SMEs and/or public research laboratories, strengthen European efforts to achieve sustainable development and disseminate best practices. The management of the project is led by a Network Steering Committee composed of high level program and policy representatives.

The consortium will make all its efforts for the incoming of new Member States that where not ready to join during the implementation of the proposal. After 48 months duration

#### PROJECT DETAILS

Perio	bd	From To	2004-10-01 2008-12-31	
Follow-on ERA-NET		ETB-PRO		
Proje	ect reference	11718		
Programme acronym		FP6-COORDINATION		
Call identifier		ERA-NET/1/CA-SSA-1-B		
Title		EUROpean network of TRANSnational collaborative RTD for SMEs projects in the field of BIOtechnology		
Contract type		Coordination Action		
Total cost EU contribution		€ 2 893 950 € 2 893 950		
Number of participants		12		
Coordinator		Oseo Innovation European and International Partnership Department OSEO, France		
Contact person		Nathalie Trannois T +33 (0)1 41 79 80 59 E nathalie.trannois@oseo.fr		
Web	site	offline (does not exist any longer)		
Parti	cipants			
AT AT	Austrian Research Promotion Agency FFG Federal Ministry of Economics and Labour BMWA			
DE Jülich Research Centre Jl		Centre J	IUELICH	
DE	DE Federal Ministry o		of Education and Research BMBF	

- FS
- Society for the Promotion of Industry SPRI
- ES Basque Government-Industry, Trade and Tourism Department
- FI Finnish Funding Agency for Technology and Innovation TEKES Ministry of Economy, Finance and Industry - General Directorate FR For Enterprise DGCIS
- FR Ministry of Higher Education and Research - Directorate General for Research and Innovation MESR-DGRI
- FR Oseo Innovation European and International Partnership Department OSEO
- NL Agency NL (formerly SenterNovem)
- NL Ministry of Economic Affairs EZ

the EUROTRANS-BIO project, structured into five work packages (exchange of information, practices, strategic activities, implementation of joint activities and transnational call for projects), could lead to a truly integrated program in the area of biotechnology.

## Consortium

The consortium of EuroTransBio consisted of 12 organisations from six European countries and regions (Austria, Finland, France, Germany, The Netherlands, Spain/Basque Country) and involved four more non-contractual partners from two countries and one region (Spain, Italy and Belgium (Flanders)) that participated in the calls. Organisations are: Agency for Innovation by Science and Technology IWT (Belgium), Ministry of Economic Development MSE (Italy), Italian Institute for Industrial Promotion IPI (Italy), Society for the Promotion of Industry SPRI (Spain/Basque Country).

## Mapping and scoping activities

A standardized documentation of each of the participating national programmes, allowing each member to compare specific information, was realized. The survey was complemented by collecting information on the national RTD environment and actors, and potential barriers for transnational cooperation. Based on this inventory the integration of individual programs and/or its modulation to overcome identified barriers were discussed in order to draft a feasible design for the first joint call for proposals.

Basic elements of this call design were (i) a bottom up approach towards the call topics (biotechnology applications, no thematic priorities), (ii) a strong focus on the target group (SMEs and their strategic partners, i.e. research organizations), (iii) a two-step call procedure and (iv) the set-up of a virtual common pot.

## Joint calls

ETB launched three transnational calls (2006, 2007, 2008) with a generic call title "Funding of Industrial R&D Projects in Biotechnology". The topic of the call was bottom-up and allowed for all sectors of modern biotechnology. The calls aimed at transnational cooperation projects between biotech SMEs and their strategic partners (RTOs, universities and large companies). Projects were funded by the national/regional funding agencies using the virtual common pot model.

#### First call 2006

The following countries/regions participated in the ETB call (2006): Austria, Finland, France, Germany, Spain (Basque country). There were 66 proposals submitted and 23 selected for funding (three projects were withdrawn/stopped after they had received a positive funding decision). The projects amounted to a total of EUR 46 million project costs of which EUR 22 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- 1. Development of a novel Helicobacter pylori antigen test. Coordinator: CARE diagnostica Ges.m.b.H. (Austria). Participating countries: Austria, Germany
- 2. Translational approach for novel diagnostics and therapeutics in CTCL. Coordinator: Dermagene Oy (Finland). Participating countries: Finland, France
- Screening systems for the identification of allergic substances. Coordinator: EDI Gmbh (Germany). Participating countries: Austria, Germany
- 4. Integration of Proteomics, Genomics, Transcriptomics and Metabonomics to identify and characterize early Prognostic, Diagnostic and Therapeutic Biomarkers for widespread Urologic Disorders. Coordinator: Mosaiques Diagnostics (Germany). Participating countries: Austria, Basque Country (Spain), France, Germany

- Isolation of novel anti-diabetic compounds from natural sources. Coordinator: 55pharma Drug Discovery & Development AG (Austria). Participating countries: Austria, France, Germany
- 6. Marker-assisted wheat improvement: creating semi-dwarf phenotypes with superior Fusarium Head Blight resistance. Coordinator: STRUBE Saatzucht KG Söllingen (Germany). Participating countries: France, Austria, Germany
- Development of a high throughput detection system for diagnostic purposes and for screening of antiviral substances against Avian Influenza A H5N2. Coordinator: Mediagnost (Germany). Participating countries: Austria, Germany
- 8. Indicator cell lines for fast identification of pathogens. Coordinator: ProBioGen (Germany). Participating countries: Austria, France, Germany
- 9. Development of an aptamer microarray for the simultaneous detection of multiple cancer biomarkers in serum. Coordinator: Proteomika SL (Spain). Participating countries: Basque Country (Spain), France, Germany
- 10. Occurence of novel Ligands for a Nuclear Orphan Receptor in plant Metabolites. Coordinator: Genfit SA (France). Participating countries: France, Germany
- 11. Development of molecular target-oriented recombinant antibodies as innovative therapeutics against promestatic and proangiogenic mediators of cancer microenvironment. Coordinator: Millegen SA (France). Participating countries: Basque Country (Spain), France
- 12. Design and construction of new cellular and animals models for the validation of TrkB as an anti-cancer target. Coordinator: VECTALYS (France). Participating countries: France, Germany
- 13. Identification and quantification of proteins in prokaryotic and eukaryotic systems using a proteomics approach based on Mass Spectrometry (MS), Surface Plasmon Resonance imaging (SPRi) and Stable Isotope Labelling (SIL): Application towards the understanding of the function

of PDZ-domains as switchboard for signal transduction. Coordinator: Silantes GbR/ BioQuantis GbR (Germany). Participating countries: France, Germany

- 14. Discovery and functional validation of new drugable targets for the treatment of colorectal cancer. Coordinator: Fluofarma (France). Participating countries: France, Germany
- 15. The link between osteoporosis and cardiovascular disease. Coordinator: Biomedica Medizinprodukte GmbH CoKg (Austria). Participating countries: Austria, France
- New treatments of bacterial infections based on antivirulence drugs. Coordinator: Mutabilis (France). Participating countries: France, Germany
- 17. New natural terpenoids as building blocks for the discovery of novel anti-cancer drug candidates. Coordinator: LIBROPHYT S.A.S. (France). Participating countries: France, Germany
- Automated, Real-Time and Multiplex detection of ligand-target InteractionS. Applications for automated aptamer design and aptamer based assay. Coordinator: Genewave (France). Participating countries: France, Germany
- 19. Predictive and preventive medicine in breast cancer. Coordinator: STATLIFE (France). Participating countries: Basque Country (Spain), France
- 20. Diffrachip: Development of a new biological detection method based on light diffraction to detect interactions between biomolecules, and its application to a cancer biochip. Coordinator: INNOPSYS (France). Participating countries: Basque Country (Spain), France

#### Second call 2007

The following countries/regions participated in the ETB call (2007): Austria, Belgium (Flanders), Finland, France, Germany, Italy, Spain (Basque Country and Spain), The Netherlands. There were 21 proposals submitted and 18 selected for funding. The projects amounted to a total of EUR 31 million project costs of which EUR 17 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

#### Projects funded:

- Development of methods and means for treating DNA repeat instability associated genetic disorders. Coordinator: Prosenza B.V. (The Netherlands). Participating countries: The Netherlands, Spain
- Inexpensive production of low endotoxin biopolymers to develop essential medical aids. Coordinator: Feyecon D&I B.V. (The Netherlands). Participating countries: Germany, The Netherlands
- Crossbeta adjuvation of H5 subunit vaccine against influenza virus H5N1: a new technology for acquiring an unmet need. Coordinator: Geneart (Germany). Participating countries: Germany, The Netherlands
- 4. Identification of novel targets for the prophylaxis and treatment of systemic Candidiasis. Coordinator: Intercell A.G. (Austria). Participating countries: Austria, Germany
- 5. CLINICAL VALIDATION OF GENETIC TESTS FOR THE EVALUATION AND THERAPY SELECTION IN COLORECTAL CANCER PATIENTS. Coordinator: Dominion Pharmakine S.L. (Spain). Participating countries: Basque Country (Spain), Germany
- Spectral Systems for Prion early Detection in sheep milk and blood for enhancing food safety. Coordinator: Prion Diagnostica S.R.L. (Italy). Participating countries: Germany, Italy
- Alzheimer apheresis. Coordinator: AFFiRiS Forschungs- und Entwicklungs GesmbH (Austria). Participating countries: Austria, Germany
- 8. Protection of Donor Organs: New Machine Perfusion Techniques that Upgrade Organ Quality. Coordinator: Haemoscan B.V. (The Netherlands). Participating countries: France, Germany, The Netherlands
- 9. Early (non- and minimally invasive) diagnostics of lung cancer. Coordinator:

Mubio Products B.V. (The Netherlands). Participating countries: Flanders (Belgium), Germany, The Netherlands

- 10. Innovative Diagnostics for the Rapid Identification and Detection of Azole Resistant Candida Yeasts. Coordinator: PathoFinder (The Netherlands). Participating countries: Flanders (Belgium), The Netherlands
- 11. Integration of three pioneering screening technologies to provide innovative drugs for unmet medical needs. Coordinator: Thrombotargets Europe SL (Spain). Participating countries: Germany, Spain
- 12. Research on cultivation and properties of probiotic bacteria for application in vegetarian foodstuffs. Coordinator: Biofun (Belgium). Participating countries: Flanders (Belgium), Italy
- Creation of a production platform to develop therapeutic proteins for treatment of inflammatory diseases. Coordinator: Alloksys Life Sciences B.V. (The Netherlands). Participating countries: Germany, The Netherlands
- 14. Improving immunotherapeutic treatment of cancer by molecular imaging of phosphatidylserine. Coordinator: PharmedArtis (Germany). Participating countries: Germany, The Netherlands
- 15. A new Biotechnology Platform for Multipurpose Biosensors. Coordinator: BIOSENSOR S.r.l. (Italy). Participating countries: Italy, The Netherlands
- 16. GLOBCELL: Global scale analysis and prediction of human cellular behaviour in a complex environment. Coordinator: BIOBASE (Germany). Participating countries: France, Germany
- 17. Development of new anticoagulant drugs. Coordinator: Compound Handling BV (The Netherlands). Participating countries: The Netherlands, Spain
- 18. New peptides for cardiovascular diagnosis. Coordinator: Technoclone GmbH (Austria). Participating countries: Austria, France

#### Third call 2008

The following countries/regions participated in the ETB call (2008): Austria, Belgium (Flanders), Finland, France, Germany, Italy, Spain (Basque Country and Spain), The Netherlands

There were 30 proposals submitted and 19 selected for funding. The projects amounted to a total of EUR 27 million project costs of which EUR 15 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- 1. TOXICHIP Preparation, validation and commercialisation of prototype toxigenomics chip. Coordinator: LIFELINELAB SRL (Italy). Participating countries: Basque Country (Spain), Italy
- BIOKA Electrochemical biosensors for the detection of the marine biotoxin okadaic acid. Coordinator: INKOA (Spain). Participating countries: Basque Country (Spain), France
- CanDia DEVELOPMENT OF AN INTEGRATED ARRAY PLATFORM AND TEST KITS FOR CANCER DIAGNISTICS. Coordinator: ViennaLab Diagnostics GmbH (Austria). Participating countries: Austria, Germany
- PABLISCA Production of yeast as biological drugs from the wastage material of baking and pastry industry. Coordinator: Agroindustry Advanced Technologies (Italy). Participating countries: Italy, Spain
- 5. MBS Colorimetric method for counting microorganisms and measuring their metabolism in waste water treatment plants – MICROBIOMET. Coordinator: MBS S.r.l. (Italy). Participating countries: Italy, Spain
- 6. EN\_CAR\_TI DEVELOPMENT OF ENGINEERED CARTILAGE TISSUE. Coordinator: Biosuma (Italy). Participating countries: Italy, France
- InnoVac Innovative development of Streptococcus pneumoniae vaccines. Coordinator: Vaxinostics B.V. (The Netherlands). Participating countries:

Austria, The Netherlands

- 3Dheartscreen New Drug Discovery platform combining in silico screening, 3D-visualization and human heart cell validation. Coordinator: Virtual Proteins B.V. (The Netherlands). Participating countries: Flanders (Belgium), The Netherlands
- DREAM Detection and ranking of easy accessible peripheral markers for the assessment of the risk of Alzheimer disease (AD). Coordinator: HO.p.e. Srl (Italy). Participating countries: France, Italy
- CETP-vaccine Development of an anti-CETP vaccine for the prevention and treatment of atherosclerosis. Coordinator: AFFIRIS GmbH (Austria). Participating countries: Austria, Germany
- 11. WineChip Development of a SuNS Microarray for Monitoring Fermentation in Wine. Coordinator: Molecular Stamping s.r.l. (Italy). Participating countries: France, Italy
- 12. FLAPS FLowcytomix Atherosclerotic Protein Signature. The search for the vulnerable patient. Coordinator: CAVADIS (The Netherlands). Participating countries: Austria, Finland, The Netherlands
- 13. CRC-REC-PRED Molecular Diagnostics Combining Expression and Methylation Markers for Prediction of colorectal cancer Recurrence. Coordinator: Signature Diagnostics A.G. (Germany). Participating countries: Germany, The Netherlands
- 14. SMART SPECIES SPECIFICITY MANAGEMENT IN RESISTANT INFECTIOUS DISEASES TARGETING THYMIDYLATE SYNTHASE. Coordinator: TYDOCKPHARMA (Italy). Participating countries: Italy, Spain
- 15. PGSYN: The impact of bioprocessing strategy on the production and downstreaming of polygalacturonases by Aspergillus sojae. Coordinator: GUSERBIOT S.L. (Spain). Participating countries: Basque Country (Spain), Germany
- 16. PRODEME Innovative Probe Design Method to Extend the Use of Microarray Technology for Genetic Research. Coordinator: FlexGen BV (The Netherlands). Participating countries: Germany, The Netherlands

- 17. FERMENVEGE Development of mixed culture for vegetable fermentation. Coordinator: Bioferme (Finland). Participating countries: Finland, Italy
- MicroScan Development of a microsievebased diagnostic system for a fast and simple detection of microorganisms. Coordinator: MM Diagnostics BV (The Netherlands). Participating countries:

France, Germany, The Netherlands

 HPPCDB - High performance, PATcompliant, disposable bioreactor systems for development and manufacture of biopharmaceuticals. Coordinator: Cellution BV (The Netherlands). Participating countries: Austria, Flanders (Belgium), Germany, The Netherlands





#### PROJECT DETAILS Period

From 2006-01-16 To 2011-01-15 Project reference 25989 FP6-COORDINATION Programme acronym Call identifier ERA-NET/1/CA-SSA-D Title The coordination of European Marine Fisheries Research Programmes Coordination Action Contract type € 3780000 Total cost EU contribution € 2 977 070 Number of 16 participants Coordinator Department for Environment, Food and Rural Affairs DEFRA, United Kingdom Contact person John Locke (untill 15th January 2011) Website www.cofasp.eu/marifish/

#### Participants

- RF Institute for Agricultural and Fisheries Research ILVO
- CY Research Promotion Foundation RPF
- DF Federal Ministry of Food, Agriculture and Consumer Protection BMFI V
- DK Directorate for Food, Fisheries and Agri-business DFFAB
- ES Ministry of Science and Innovation MICINN
- FR French Research Institute for Exploitation of the Sea IFREMER GR General Secretariat for Research and Technology GSRT
- IE Marine Institute MI
- Icelandic Centre for Research RANNIS IS
- NL Ministry of Economic Affairs EZ NO Research Council of Norway RCN
- PL Sea Fisheries Institute in Gdynia MIR
- PL Ministry of Science and Higher Education MSHE PT
- Ministry of Agriculture, Fisheries and Forest IPIMAR SE Swedish Research Council for Environment, Agricultural
- Sciences and Spatial Planning FORMAS
- UK Scottish Executive. Fisheries research Services ERS

## MariFish

#### The Coordination of European Marine Fisheries Research Programmes



## **Objective**

The EU fishing industry is the third largest in the world. It supplies some 6.9 million tonnes of fish each year. Fishing and fish processing directly provide jobs for more then 400 000 people. In addition, the maritime economy overall accounts for some five million jobs and some 5% of GDP is generated directly by marine-based industries and services. Today this sector faces many challenge and the priority for EU fisheries policy is to strike the right balance between having a competitive fishing industry and sustainable fish stocks and a sustainable marine eco-system. European aquaculture, for example, is at the forefront of sustainable development in the world, both in terms of social and environmental impacts. Aquaculture can help offset declining wild fish stocks. Already, 19% of the tonnage sold by the EU fishing industry comes from fish farms

The ERA-NET MariFish project brings together the major European national funding agencies involved in marine fisheries research to increase the coordination and effectiveness of fisheries research at the European and regional level. The goal is to build on Europe's strengths in marine research, technology and innovation. With better coordination of national research efforts the EU will be in a stronger position to tackle the significant challenges facing European fisheries management. MariFish sets out to encourage joint working and increased understanding between the project partners. This will help to avoid duplication and reduce financial risks by

spreading the costs of new research.

The five year project was launched in 2006 and for the first time the major funders of fisheries research are able to meet and discuss a wide range of issues including the future priorities for research, identification of gaps and overlaps in national programmes, and how to achieve better collaboration. The partners in the MariFish project have a combined annual budget of EUR 16 million. Much of their work is geared towards providing a better understanding of the biology and dynamics of fish stocks and the impact of fishing on the marine environment.

MariFish has set out to find ways to improve research planning and procurement. The project also aims to compare and analyse national research programmes to identify areas of common interest, gaps in research and areas of duplication. This will help the partners develop and commission shared research activities in up to five pilot areas. The long-term aim has been to identify the strategic and innovative requirements of fisheries research over the next ten years and develop jointly funded programmes to meet those needs.

## Consortium

The consortium consist of 16 partners from 15 countries.

## Mapping and scoping activities

One of MariFish's objectives is to identify research topics that will be particularly suitable for coordination at European level and will bring added benefits to the European Research Area.

In the initial phase, the projects has prioritised collecting information on topics in marine fisheries management and selected five to be developed into collaborative research programmes by a group of interested countries.

Two programmes have a regional focus and three focus on a particular issue. Some programmes aim to collaborate without providing any new research funding and some use additional funding to strategically link the programmes together.

## Joint calls

On the basis of a number of long-term strategic research issues which have been identified by MariFish members, a joint call for research was made at the end of 2008 and a series of themes have been proposed for joint research.

This encompasses:

- the relationship between stock size and recruitment;
- by-catches and discards;
- · biological interaction between species;
- environmental impact of fisheries;
- economic indicators.

The project represents a total combined budget of EUR 4.2 million between 2009 and 2011.

By providing the opportunity for a number of distinct, autonomous organisations to learn from each other, the MariFish will help to develop a strong strategic dimension to marine fisheries research in Europe.

#### First call 2008

A total of EUR 3.7 million is being committed by partners to support three projects which together will help develop the concept of operational indicators for fisheries management.

Marifish launched a call for proposals on 15 December 2008 with a closing date of 2 March 2009. Nine partners – Cyprus, Denmark, France, Greece, Iceland, Netherlands, Norway, Spain and UK (Defra) – committed a total of just over four million euros to the "virtual common pot". Under the "virtual common pot model", all partners fund their own national research groups.

The research theme selected for the call was the development of the concept of operational fisheries management indicators that can assist managers in developing long term fisheries management plans; and exploring ways these indicators can be applied to selected fisheries through their inclusion in fishery management plans.

Six proposals were received and following peer review by a panel of international experts the MariFish partners agreed to fund three projects.

Projects funded:

1. REPROdUCE - Understanding recruitment processes using coupled biophysical models of the pelagic ecosystem. Coordinator: Spanish Institute of Oceanography IEO (Spain). Participating countries: Spain, Greece, France, Portugal

- BADMINTON Bycatch and discards: management indicators, trends and location. Coordinator: Hellenic Centre for Marine Research HCMR (Greece). Participating countries: France, The Netherlands, Spain, United Kingdom, Denmark, Iceland
- 3. DEFINELT Developing fisheries management indicators and targets. Coordinator: Danish Technical University (Denmark). Participating countries: United Kingdom, The Netherlands, Norway, Greece, Iceland





# **SAFEFOODERA**

European excellence in food safety research programming

# SAFEF00DERA

#### PROJECT DETAILS

<b>.</b> .		5 2004 00 01			
Peri	Dd	From 2004-08-01 To 2009-05-31			
Follo	ow-on ERA-NET	Network completed 31st May 2009			
Proj	ect reference	515726			
Prog acro	Iramme nym	FP6-COORDINATION			
Call	identifier	ERA-NET/1/CA-SSA-B			
Title		Food Safety - Forming a European platform for protecting consumers against health risks			
Cont	tract type	Coordination Action			
Total cost EU contribution		€ 3 881 050 € 3 740 691			
	ber of icipants	25			
Cool	rdinator	Nordic Innovation Centre NICe, Norway			
Contact person		Mads Peter Schreiber E safefoodera@qmail.com			
Web	site	www.safefoodera.net			
Part	icipants				
BE	Federal Agency	for the Safety of the Food Chain FASFC			
CY	Research Promotion Foundation RPF				
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
DK	National Food Institute – Technical University of Denmark NFI-DTU				
DK	Nordic Council of Ministers NCM				
FI	Finnish Funding	Finnish Funding Agency for Technology and Innovation TEKES			
FR	,	of Research and New Technologies MRNT			
FR		l Institute for Agricultural Research INRA			
DE		of Consumer Protection and Food Safety BVL			
DE		e for Risk Assessment BfR			
HU		of Research and Technology NKTH			
IS IT		e for Research RANNIS			
NL	Italian National Institute for Public Health ISS The Netherlands Food and Consumer Product Safety Authority				
NI	NVWA Ministry of Ecor	aomic Affairs EZ			
NO	Ministry of Economic Affairs EZ Research Council of Norway RCN				
NO	Research Council of Norway RCN Nordic Innovation Centre NICe				
PL	National Food and Nutrition Institute IZZ				
PT	Foundation for Science and Technology FCT				
PT	National Institu	te of Biological Resources INRB			
SI	Ministry of High	er Education, Science and Technology MHEST			
ES	Department of DAPA Basque C	Agriculture and Fisheries, Research Directorate Jountry			
SE	Swedish Governmental Agency for Innovation Systems VINNOVA				
TR	Scientific and Te TUBITAK	echnological Research Council of Turkey			

UK The Food Standards Agency FSA

## **Objective**

The primary objective of SAFEFOODERA is to establish a European platform for protecting consumers against health risks from the consumption of food through a coordination action. The EU is one of the largest producers of food and drink and a leading world exporter. Food safety is a key policy priority for Europe. Indeed there have already been outbreaks of foodborne disease, such as BSE in beef or salmonella in eggs, and incidences of dangerous chemicals like dioxins in dairy products which have had a serious impact on farming and exports, and consumer confidence. The EU White Paper on food safety of January 2000 stressed the need for high-guality assessment, management and communication of risks and this ERA-NET project responds to this need. National research efforts are often embedded in environment or agriculture research programmes and not well coordinated or communicated at European level.

The ERA-NET SAFEFOODERA project was launched in 2004 to coordinate national food safety research across Europe and enables research programmes to cooperate across national borders. The five-year project has created a European platform for protecting consumers against health risks. The project has established an effective network of programme managers and actively looks for opportunities for transnational research programmes to fill gaps in knowledge. It also aims to improve Europewide communication to stakeholders of new research and risks, thereby helping to safeguard

the safety and welfare of European citizens. The primary 'impact' measure of success is a confirmed willingness of stakeholders to cooperate and collaborate in a transparent way with the aim to restore and maintain consumer confidence in food safety. In addition to this also the question of how to cooperate in the future is an issue. The establishment of the emerging risk platform was in focus and a business plan and structure was developed. The overall aim of the platform is to exchange information on current and future research related to the proactive identification of emerging feed and food safety risks, i.e. research related to signals that may indicate the occurrence of (a) potential hazard(s).

## Consortium

The SAFEFOODERA consortium consists of 25 partners from 18 different countries. SAFEFOODERA developed a strategy for involving stakeholders of food safety aspects (European Food Safety Authorities (EFSA), European Commission (EU) and European organisations of scientist, business and trade in food products) in the networking on regular consulting basis to get the optimal coordination of national/regional programmes as well as SAFEFOODERA targets. A pipeline for membership of SAFEFOODERA a memorandum of understanding signed with Brazil, Croatia, The Czech Republic, Ireland, Latvia and Lithuania. Brazil was especially engaged as the first non-European country with a large export of food to Europe. Participating organisations in these countries are: Plant Inspection Service Ministry of Agriculture, Livestock & Food Supply (Brazil), Ministry of Agriculture - Food Authority (Czech Republic), The Croatian Food Agency (Croatia), The Irish Safefood (Ireland), Lithuanian State Food and Veterinary Service (Lithuania), Food and Veterinary Service of Latvia (Latvia).

## Mapping and scoping activities

SAFEFOODERA did in the early stage a mapping "Comparison and clustering of national/regional

food safety research" showing that in 35 funding agencies/ministries 2359 food safety related projects were running in 2004. A high number of duplicates were monitored (example: 111 projects concerning campylobacter). This database of projects becomes a fundament for the development of trans national calls. In addition to this overview of national research activity the network continuously the selection of research topics and the available key resources for food safety research. A mapping of the national barriers for participation in transborder calls was performed. This survey focused at the funding mechanism, at the specific national rules for reporting, application and evaluation and at the barriers for cooperation in joint research programme.

Food safety is both at European level and national level a regulated area and this implicate some political constraint for cooperation. Emerging risks is a part of the general objective and SAFEFOODERA identified a possible network of resources and instruments to support in the effective identification of (re)emerging risks and prediction of new risk. SAFEFOODERA held regular meetings with the main European stakeholders (scientist, food producers, food distributers, regulators etc.) in food safety research and summed up the common conclusions of the need for European cooperation in the field.

## Joint calls

#### **First call 2006** Pilot call

The pilot call intended to help the SAFEFOODERA consortium to better organise and run subsequent full transnational programmes (larger number of countries and topics and with larger budgets). Three topics were chosen (two under a common pot funding scheme and one with a distributed pot funding scheme). The projects working period were May 2007 – August 2008. They were finished by a seminar in Iceland 2008.

Four projects were funded under the pilot call with a network budget of EUR 3.8 million.

Projects funded:

- PUFFIN Pathogen & ugly microbe free food industry network. Coordinator: MATIS (Iceland). Participating countries: Cyprus, Denmark, Spain (Basque Country), Finland, Iceland, Norway, Sweden United Kingdom
- MYCONET Network of information sources for an identification system of emerging mycotoxins in international plant production chains. Coordinator: Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: Germany, Denmark, Finland, Iceland, The Netherlands, Norway, Portugal, Sweden
- SAFErment Increased safety of fermented sausage by the application of production exposure assessment for VTEC. Coordinator: SIK (Sweden). Participating countries: Cyprus, Denmark, Spain (Basque Country), Finland, Iceland, Norway, Sweden United Kingdom
- CAMPEC-NET Foodborne zoonosis -Campylobacter and E. coli - a network project. Coordinator: Norwegian School of Veterinary Science (Norway). Participating countries: Cyprus, Germany, Denmark, Spain (Basque Country), Finland, Iceland, Lithuania, The Netherlands, Norway, Portugal, Sweden, United Kingdom

#### Second call 2008

A second call was launched in 2008 focusing on topic of trans-nation interest in food safety research. The total funding budget of the Call is approximately EUR 6.5 million. The activity in total approximately EUR 11 million. The projects working period were May 2009 – August 2011. They were finished by a seminar in Copenhagen 2011.

Projects funded:

- 1. Detection of traces of allergens in foods. Coordinator: University of Basque Country (Spain). Participating countries: Czech Republic, Spain (Basque Country), Finland
- 2. Piglet model for safety testing of probiotic

Bacillus species. Coordinator: Norwegian School of Veterinary Science (Norway). Participating countries: Iceland, Norway, Slovenia

- 3. BIOTRANSPORT: Safe transportation of marine bioactives from source to active site. Coordinator: Chalmers (Sweden). Participating countries: Iceland, Norway, Sweden, Slovenia.
- RISKFOOD BioAvailability and risk assessment of polycyclic aromatic hydrocarbons (PAHs) and toxic elements (As, Cd, Hg and Pb) in processed meat and seafood products. Coordinator: IPIMAR (Portugal). Participating countries: Spain (Basque Country), Portugal, Slovenia.
- EMTOX: Effects of climate change on emerging natural toxins in plant and seafood production. Coordinator: RIKILT

   Institute of Food Safety, Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: Cyprus, Denmark, Finland, Iceland, The Netherlands, Norway, Sweden.
- 6. GMOseek. Coordinator: National Ins of Biology (Slovenia). Participating countries: Germany, Slovenia, United Kingdom
- The role of commensal microflora of animals in the transmission of extended spectrum ß-lactamases (ESBLs). Coordinator: Wageningen UR (University and Research Centre) (The Netherlands). Participating countries: Germany, The Netherlands, United Kingdom
- 8. BEPRARIBEAN: Best Practices for Risk-Benefit Analysis: experience from out of food into food. Coordinator: RIVM/ Maastricht University (The Netherlands). Participating countries: Finland, Iceland, The Netherlands, Denmark, Norway
- LISRISK: Risk assessment of Listeria in traditional ready-to-eat food items. Coordinator: University of Akureyri (Iceland). Participating countries: Spain (Basque Country), Cyprus, Iceland, Portugal.
- 10. eTrace electronic Traceability using EPCIS. Coordinator: SINTEF (Norway). Participating countries: Norway, Iceland, Sweden





From 2004-01-01

FP6-COORDINATION

FRA-NET/1/CA-SSA-A

Coordination Action

€ 2 000 000 (on average)

ERA-NET 7: self-sustained 8

Ministry of Life - Federal Ministry of Agriculture, Forestry, Environment and Water

Management BMLFUW (Austria)

E simon.moolenaar@skbodem.nl

www.snowmannetwork.com

Netherlands Centre for Soil Quality

Management and Knowledge Transfer SKB

Simon Moolenaar, Chair of the SNOWMAN

€ 1 046 032

€ 1 046 032

2009-06-30

SNOWMAN Network, a self-maintained research funding network (2009 onwards)

ERA-NET: Sustainable management of soil and groundwater under the pressure of soil

pollution and soil contamination Self-sustained: Knowledge for Sustainable

To

3219

Soils

€ 60,000

€

# **SNOWMAN**

# Sustainable management of soil and groundwater



#### PROJECT DETAILS

Period

Follow-on ERA-NET

Project reference Programme acronym Call identifier

Title

Contract type ERA-NET: Total cost EU contribution

Self-sustained: Annual cost secretariat Research budget per call EU contribution

Number of participants Coordinator

coordinator

Self-sustained

Contact person

#### Website

#### Participants ERA-NET

AT Ministry of Life - Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW

network

(The Netherlands)

- BE Public waste agency of Flanders OVAM
- DE Federal Ministry for the Environment, Nature Conservation and Nuclear Safety BMU
- FR French Environment and Energy Management Agency ADEME NL Netherlands Centre for Soil Quality Management and
- Knowledge Transfer SKB
- SE Swedish Environment Protection Agency SEPA
- UK Environment Agency of England and Wales

#### Self-sustained: Members/Public Funders

- BE Public waste agency of Flanders OVAM
- BE Department of Environment, Nature & Energy LNE
- BE Public Service of Wallonia SPW D GARNE
- FR Ministry for the Protection of Nature and the Environment MEDDE
- FR French Environment and Energy Management Agency ADEME
- SE Swedish Environment Protection Agency SEPA SE Swedish Research Council for Environment, Agricultural
- Sciences and Spatial Planning FORMAS NL Netherlands Centre for Soil Quality Management and Knowledge Transfer SKB

## **Objective**

SNOWMAN is a transnational group of research funding organisations and administrations in the field of sustainable management of soil and groundwater in Europe. SNOWMAN projects aim at bridging the gap between knowledge demand and supply (Science-Policy-Practice Interface).

The SNOWMAN network wants to develop and share knowledge for the sustainable use of soil and groundwater by:

- Executing our research programme by organising calls for projects;
- Disseminating knowledge by sharing the knowledge developed in the SNOWMAN projects among the members and our broader networks, for example knowledge dissemination activities involve:
  - November 2011 Workshop on Natural Attenuation, Paris France
  - November 2012, Online conference (webinar) on Sediments Sweden – The Netherlands
  - A "Dialogue Session" will be held at the Global Soil Week in Berlin (October 2013)
  - A joint Workshop together with the NICOLE network is scheduled for November 2014
  - Involving end-users and stakeholders by giving them a role in our advisory group and in our project consortia with end-user participation.

## Consortium

The consortium was funded by the European Commission's 6th Framework Programme for Research and Technological Development (RTD) and included seven partners from seven different EU countries representing national activities in the field of SNOWMAN. In the selfsustained continuation the consortium consist of eight partners from four different countries.

## Mapping and scoping activities

SNOWMAN started as a European financed ERA-NET project (FP6) with a budget for five years (2004-2009). The scope of this ERA-NET was "Sustainable management of soil and groundwater under the pressure of soil pollution and soil contamination". The SNOWMAN partners created a vision on research coordination, a communication strategy and action plan for the dissemination of research results, a common research programme and a framework for conducting transnational calls for research projects.

The first call was successful and resulted in six research projects of which the results were shared among the partners. The SNOWMAN Navigator, delivered in 2005, gives an overview of research funding organisations in the field of soil and groundwater.

When the ERA-NET project ended, the SNOWMAN Network continued as a self-financed/sustained network with a broadened scope: "Knowledge for sustainable soils".

Relationships between sustainable soil, (ground) water, and land management on the one hand and on the other hand topics related to contaminated sites and brownfields, biodiversity and ecosystem services, sustainable management of agricultural and forestry soils, climate change and energy and socio-economics are at the core of the current SNOWMAN projects.

 SNOWMAN Vision Paper defines the goal of European research activities in this specific field with specification of next steps, shortand medium-term (living document).

- SNOWMAN Research Programme which provides the basis for our coordinated research calls and a strategy to develop transnational research coordination (yearly updated).
- SNOWMAN Management Paper with a set of rules and agreements on how to cooperate and how to execute the coordinated research calls (revised when necessary).
- SNOWMAN LANDSCAPE connects research projects to research questions. The SNOWMAN Landscape is a database of SNOWMAN, EU and national research projects, categorized by the SNOWMAN Network research areas and research questions. We aim to provide a better overview of all research projects in the field of soil and groundwater in Europe: aiming for continuous updates at www. snowmanlandscape.com.
- SNOWMAN Scoping Workshop on socioeconomics (June 2010) serving as a basis for the fourth Call.
- SNOWMAN Future Investigation (May-November 2013) to arrive at a roadmap to attract new funders and other network partners and to align the SNOWMAN activities with Horizon 2020 (H2020).

SNOWMAN currently (2013) carries out an investigation on the future of the network and at the same time reviews the network organisation. New developments at the European level, especially within the context of Horizon 2020, may open opportunities for new ways of funding and of working. We relate the self-sustained SNOWMAN network to the H2020 themes and challenges and align our activities with H2020 instruments (EIPs, JPIs, ERA-NETs, KICs).

SNOWMAN wants to build strong transnational and subnational collaboration on sustainable soil management in Europe in order to get soil issues higher on the agenda of the EC as a cross cutting theme to address the H2020 societal challenges.

Although not formally a JPI, the ambition of SNOWMAN is to become a truly European

platform ("umbrella") for sustainable soil and land management with special emphasis on soil as a natural resource within H2020.

In this sense soil issues could be incorporated in a strategic research agenda relating to several themes (like Energy, Environment, KBBE, Health, Socio-Economics and other themes) thus enhancing cross-thematic cooperation, for example with PLATFORM (KBBE ERA-NETs & JPI-FACCE).

## Joint calls

#### First call 2006

Pilot call

In December 2006, the SNOWMAN consortium opened its pilot call for transnational research in the field of "Sustainable Management of Soil and Groundwater Pollution". SNOWMAN received a total of 23 project proposals, which have been evaluated in a stepwise process. Almost EUR 800 000 was available for the call; the budget was over-subscribed by 3.5 times. Of the 23 proposals there were four with partners outside the SNOWMAN consortium (namely: Czech Republic, Denmark, Italy, Russia, Spain) willing to bring in external funding into the respective projects.

Five research projects were funded by SNOWMAN. The smallest consortium consisted of two organisations from two SNOWMAN partner countries. The largest research consortium included 11 organisations from six SNOWMAN partner countries and one organisation from the Czech Republic and Italy each.

Projects funded:

- PERSPEC Perspectives on mobilisation of prioritised contaminants in soil. Coordinator: Umeå University (Sweden). Participating countries: Austria, Sweden, United Kingdom
- MUSA Integrating Multiple Scale Assessment on Ecosystems for Contaminated Land Management. Coordinator: SETEMIP-Environnement (France). Participating countries: France, The Netherlands

- IOPSIM (Im)mobilization of organic pollutants by soil constituents in the soil/ groundwater system - Strategies for innovative management. Coordinator: Universität für Bodenkultur Wien BOKU (Austria). Participating countries: Austria, Germany, The Netherlands
- SUMATECS Sustainable management of trace element contaminated soils -Development of a decision tool system and its evaluation for practical application. Coordinator: Universität für Bodenkultur Wien BOKU (Austria). Participating countries: Austria, Czech Republic, Flanders (Belgium), France, Germany, Italy, Sweden, United Kingdom
- ENACT Extending the Natural Attenuation of Chlorinated solvents Toolbox. Coordinator: Tauw bv (The Netherlands). Participating countries: The Netherlands, Flanders (Belgium), Germany
- Rejuvenate Rejuvenate: Crop Based Systems for Sustainable Risk Based Land Management for Economically Marginal Degraded Land. Coordinator: R3 environmental technology ltd (United Kingdom). Participating countries: United Kingdom, Germany, The Netherlands, Sweden

Final results were presented in Vienna on June 17th, during the SNOWMAN Science day.

#### Second call 2009

The second call of SNOWMAN was opened between 12 January 2009 and 31 March 2009. This call was launched in the ERA-NET period and finalized in the self-sustained network.

Project proposals for three topics were asked:

- Areal management of contaminated soil
   and groundwater
- Integration of soil management into spatial planning
- Use of contaminated land for biofuel crop production

Available budget: EUR 1.8 million. Of this budget EUR 994 000 was rewarded.
SNOWMAN received a total of 10 project proposals, which have been evaluated in a stepwise process. This evaluation resulted in the selection of three projects in the second call.

### Projects funded:

- MCA Multi-criteria analysis (MCA) of remediation alternatives to access their overall impact and cost/benefit, with focus on soil function (ecosystem services and goods) and sustainability. Coordinator: Umeå University (Sweden). Participating countries: Sweden, Austria
- 2. INSPECT INtegration of SPatially Explicit risks of ConTaminants in Spatial Planning and Land Management. Coordinator: Chrono-Environnement, university of Franche-Comté/CNRS (France). Participating countries: Flanders (Belgium), The Netherlands
- Rejuvenate2 Crop Based Systems for Sustainable Risk Based Land Management for Economically Marginal Degraded Areas, Phase II: Demonstration projects and evaluation decision support tool. Coordinator: Swedish Geotechnical Institute (Sweden). Participating countries: Romania, Flanders (Belgium), The Netherlands

Kick-off meeting: Vienna, February 9th and 10th, 2010; Midterm meeting: Paris, November 9th, 2011; Final meeting: Paris, November 18th, 2013.

### Third call 2011 (self-sustained)

This call was open from 15 September 2010 until 15 December 2010.

Project proposals for three topics were asked: Topic 1: Soil functions and ecosystem services Topic 2: Sustainable agriculture and forestry Topic 3: Contamination

Available budget : two million euros. The available budget was completely spent and even exceeded by about 10% (extra funding)

SNOWMAN received a total of 14 project proposals, which have been evaluated in a

stepwise process. This evaluation resulted in the selection of six projects in the third call.

### Projects funded:

- 1. SUSTAIN Soil Functional Biodiversity and Ecosystem Services, a Trans disciplinary. Coordinator: University of Rennes (France). Participating countries: The Netherlands, France
- ECOSOM Soil organic matter as a key factor in the provision of soil ecosystem services. Coordinator: Institut National de la Recherche Agronomique. Participating countries: Sweden, France, The Netherlands
- SAS-STRAT Sustainable Agriculture and Soil: comparative study of strategies for managing the integrated quality of agricultural soils in different regions of Europe/Belgium, France, The Netherlands. Coordinator: Mutadis (France). Participating countries: France, The Netherlands, Wallonia (Belgium)
- IBRACS Integrating Bioavailability in Risk Assessment of Contaminated Soils: opportunities and feasibilities. Coordinator: Swedish Geotechnical Institute (Sweden). Participating countries: Sweden, Wallonia (Belgium), Flanders (Belgium), France
- ImaHg-Enhancedknowledgeinmercuryfate and transport for improved management of Hg soil contamination. Coordinator: Bureau de Recherche Géologique et Minière (France). Participating countries: Flanders (Belgium), France, United Kingdom
- 6. PACMAN Assessment and Management of polar PACs in contaminated soils and remedial processes. Coordinator: Umeå University(Sweden). Participating countries: Sweden, France

Kick-off meeting: Paris, November 8th, 2011 Midterm meeting: Paris, November 18th -19th, 2013

### Fourth call 2012

This call was open from September 17th until December 17th 2012.

Integrating natural, social and economic science perspectives on soil research.

The scope of the fourth Call was based on the relationship between soil, on the one hand, and social and economic sciences on the other.

All SNOWMAN partners believe soil quality management should change from being a specific, sectoral policy and management issue into an integrated factor in decision making processes. There is lack of knowledge in terms of how society understands, perceives and values soils. The 4th call was therefore focussing on integrating natural, social and economic science perspectives on soil research. Attention has thus been drawn to the coupled interactions between economic (profit), ecologic (planet) and social (people) systems.

Ten major "issues" in the context of social and economic research related to soil have been defined:

- 1. Consideration of soil (quality) in the holistic approach to land management and redevelopment.
- 2. Assessment of the trade-offs between different soil services
- 3. Ignorance and the appeal of (using) the soil
- 4. Ownership relationships with regard to soil
- 5. Formal framework for achieving efficient and sustainable use of soil
- 6. Sectoral (or private) versus social (or public) value systems
- 7. Fragmented share of costs and benefits
- 8. Consideration of specific characteristics of the soil system as an object of concern in environmental management and policy
- 9. Communication, risk perception and awareness raising: 9a. Risk perception of contaminated

soils by different stakeholders and communication with the general public. 9b. Communication and awareness-raising (on all soil issues, not just contamination)

In the fourth call these 10 issues were addressed within two specific thematic clusters:

- I. Soil contamination
- II. Agricultural and forest soils (with special emphasis on research related to climate change)

Available budget : EUR 1.8 million. Of this budget EUR 856 716 was awarded.

SNOWMAN received a total of eight project proposals, which have been evaluated in a stepwise process. This evaluation resulted in the selection of three projects in the fourth call.

Projects funded:

- BALANCE4P Balancing decisions for urban brownfield regeneration – people, planet, profit and processes. Coordinator: Chalmers University of Technology (Sweden). Participating countries: Sweden, The Netherlands, Belgium
- RAI SOILCOMP Raising awareness on the Impact of subSOIL COMPaction. Coordinator: Wageningen UR (University and Research Centre) – Alterra (The Netherlands). Participating countries: The Netherlands, Flanders (Belgium), Sweden
- URBAN SOIL Relationship between City-Dwellers and soils: How to use urban and Peri-urban soils to face the urban challenge. Coordinator: Fondation Maison des sciences de l'homme (France). Participacting countries: France, Wallonia (Belgium), The Netherlands

Kick-off meeting: Planned for November 19th 2013 in Paris.



European Commission





European Research Area



# WOODWISDOM-NET

Networking and Integration of National Programmes in the Area of Wood Material Science and Engineering



WoodWisdom-Net

# **Objective**

The aim of the WoodWisdom-Net project was to create a common research platform by developing sustained collaboration between the European forestry sector and forest-based industry, the wood material research community and funding organisations and integrating research resources in different countries. Promoting the development of innovative forest-based products, processes and services, the collaboration was aimed to benefit Europe's citizens and strengthen the competitiveness of Europe's forest sector and forest-based industry.

The final goal of the WoodWisdom-Net consortium was to prepare and implement a cooperation agreement and launch a joint call of a transnational programme. The experience gained in planning and implementation of the Finnish-Swedish co-funded Wood Material Science Programme, which started in the beginning of 2003, gave a good basis to build up a long-term European research area in wood material science. Structuring of the activities was grouped into two categories: information collection and cooperation objectives.

# Consortium

The first ERA-NET on wood material science and engineering. WoodWisdom-Net. started in 2004 with 12 partners from five countries and was later in 2006 expanded with six new partners (3 countries).

### PROJECT DETAILS

Period From 2004-01-01 2008-12-31 То Follow-on ERA-NET WOODWISDOM-NET 2 and WOODWISDOM-NFT-Project reference FRAC-CT-2003-510206 FP6-COORDINATION Programme acronym Call identifier FRA-NET/1/CA-SSA-A Title Supporting the cooperation and coordination of research activities carried out at national or regional level (ERA-NET Scheme) Contract type Coordination Actions (CA) € 2 195 180 € 2 195 180 Total cost EU contribution Number of participants 18 Coordinator Finnish Funding Agency for Technology and Innovation TEKES, Finland Contact person Ilmari Absetz F ilmari absetz@tekes fi +358 2950 55837 Mika Kallio F mika kallio@woodwisdom.net Website www.woodwisdom.net Participants AT Austrian Research Promotion Agency FFG DE Federal Ministry of Education and Research BMBF DE Jülich Research Centre JUELICH DK Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI DK Danish Forest and Nature Agency DFNA FL Academy of Finland AKA FI Finnish Funding Agency for Technology and Innovation TEKES FL Ministry of Agriculture and Forestry MMM FR French National Institute for Agricultural Research INRA FR Ministry of Agriculture/General Direction for Forest and Rural Affairs MAAPF FR Technical Centre for Wood and Furniture CTBA NO Norwegian Industrial and Regional Development Fund SND

- NO Research Council of Norway RCN
- NO Nordic Expert Research Cooperation Committee SNS
- SE Swedish Governmental Agency for Innovation Systems VINNOVA
- Swedish Research Council for Environment, Agricultural SF Sciences and Spatial Planning FORMAS
- UK Forestry Commission FC
- UK Scottish Enterprise Dumfries and Galloway SEDG

# Mapping and scoping activities

The ERA-NET WoodWisdom-Net had several tasks designated for mapping and scoping activities such as:

- Information exchange on research programmes (and research activities);
- Exchange of information on political and institutional environment and implementation approaches of research programmes;
- Development of networking and cooperation structure for programme makers and programme managers (information of programmes, projects, partners and other activities) in Europe;
- Identification of potentially relevant new partner countries to be involved in WoodWisdom-Net in the future;
- Documentation on common goals and activities within the national activities involved in the ERA-NET;
- Creating an overview on legal barriers that hinder transnational cooperation and guidelines and recommendations for future activities.

The main outcomes of the mapping and scoping activities are published in the following reports:

- Report 1-2005 Overview of Evaluation Practises and Guidelines for Common Research Activities
- Report 1-2006 Overview on Barriers
  That Hinder Transnational Cooperation and
  Models for Future Cooperation
- Report 2-2006 National and Transnational Research Programmes of the WoodWisdom-Net Partners
- Report 1-2008 Best Practises of Research Programmes of the WoodWisdom-Net Partners in the Field of Wood and Forestry Research
- Report 2-2008 Foresight Report

   Overview of Foresight Studies in WoodWisdom-Net Countries
- Report 3-2008 Report on WoodWisdom-Net Self-evaluation

The project also created a specific joint online database/document pool (Research Landscape Tool) on national research programmes/projects. The Research Landscape Tool was designed to support the objectives of the development of networking and cooperation structure for programme makers and programme managers (information of programmes, projects, partners and other activities) in Europe, and to collect relevant stakeholder information.

# Joint calls

### First call 2006

The first joint call for proposals within the WoodWisdom-Net Research

At the start of November 2006 the participating organisations launched the first two-step Joint Transnational Call for Proposals. The call was devoted to basic research with sub call A addressed "Wood production and properties" as applied to industrial Research Technology and Development (RTD). Sub call B addressed "New wood-based products, efficient processes and sustainable forestry". In the first phase 70 proposals from consortia with over 400 participating organisations in total were submitted. In the 2nd phase 40 consortia were invited to submit a full proposal and finally, 17 proposals were accepted for funding (see below), the call having a total funding of over EUR 20 million. The share of public national funding was 70%, industrial funding 15% and research centres own funding totalling 15%. It was very pleasing to note that a further seven countries (not ERA-NET partners) participated in the programme by providing funds to individual project participants.

List of selected projects sorted by main research area:

FIBRES - Wood Fibre Properties and Processing

Projects funded:

1. BioPack - Design of biocomposites based on nanocellulose and hemicelluloses for future packaging materials. Coordinator: STFI-Packforsk AB (Sweden). Participating countries: Sweden, Finland, France

- 2. DesignCell Designed Cellulosic Nanostructures. Coordinator: STFI-Packforsk AB (Sweden). Participating countries: Sweden, Finland, France
- FibreSurf New Biotechnical tools for wood fibre modification and analyses. Coordinator: Royal Institute of Technology (KTH) - Div. of Wood Biotech., School of Biotechnology (Sweden). Participating countries: Sweden, Finland, United Kingdom
- FUNFIREBIC Functional fibre reinforced biocomposites. Coordinator: Oy All-Plast Ab (Finland). Participating countries: Finland, Germany, Sweden
- 5. HemiPop Engineering structure and properties of poplar hemicelluloses. Coordinator: University of Helsinki (Finland). Participating countries: Finland, Sweden, France
- PROBARK A sustainable process for production of green chemicals from softwood bark. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: Finland, Germany, Sweden
- ReCell Refined cellulose derivatives for high-value biomedical products. Coordinator: Royal Institute of Technology, Fibre- and Polymer Technology (Sweden). Participating countries: Sweden, Germany, Finland
- 8. WoodFibre3D Structure-property relations of wood fibres: 3D characterization and modelling. Coordinator: SINTEF Materials and Chemistry (Norway). Participating countries: Norway, Finland, Sweden, Denmark

WOOD - Wood Materials and Engineering

Projects funded:

1. FireInTimber - Fire resistance of Innovative Timber structures. Coordinator: SP Trätek/ Wood Technology (Sweden). Participating countries: Sweden, Finland, Germany, France, Norway, United Kingdom, Austria, Switzerland, Estonia

- GRADEWOOD Grading of timber for engineering wood products. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: Finland, United Kingdom, France, Germany, Sweden, Austria, Slovenia.
- Improved Moisture Improved glued wood - modelling and mitigation of moisture-induced stresses. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: Finland, Sweden, Germany, Austria, China
- TES-Energy Facade Timber-based element systems for improving the energy efficiency of the building Envelope. Coordinator: Technische Universität München – TUM, Timber Architecture (Germany). Participating countries: Germany, Finland, Norway
- WinFur Use of furfurylated wood for the production of high-performance windows made of European Timbers. Coordinator: University of Göttingen - Institute of Wood Biology and Wood Technology (Germany). Participating countries: Germany, Norway, Sweden
- WoodExter Service life and performance of exterior wood above ground. Coordinator: SP Technical Research Institute of Sweden (Sweden). Participating countries: Sweden, United Kingdom, Finland, France, Austria, Norway, Germany, Belgium

FORESTRY - Wood Resources and Logistics

Projects funded:

- IRIS New technologies to Optimize the wood information basis for forest industries

   developing an integrated information system. Coordinator: Norwegian University of Life Sciences (UMB). Participating countries: Norway, Germany, Finland, Sweden, Ireland
- WOODVALUE Value creation in wood supply chains. Coordinator: The Finnish Forest Research Institute (Metla) - Parkano Research Unit. Participating countries: Finland, Germany, Sweden, United Kingdom, Denmark, Norway, Italy

3. WOVEN - Wood formation under varying environmental conditions. Coordinator: The Finnish Forest Research Institute (Metla). Participating countries: Finland, Norway, Sweden



# **FP7 ERA-NET Actions**

European Reseach Area Networks of the 7th Framework Programme



ANIHWA

### Animal Health and Welfare



### PROJECT DETAILS

Period         From 2012-01-01 To 2015-12-31           Project reference         291815           Programme acronym         FP7-KBBE			
Programme FP7-KBBE			
Topic identifier KBBE.2011.1.3-05			
Title Animal health and welfare ERA-NET			
Contract type Coordination (or Networking) Action			
Total cost € 2 242 784			
EU contribution $\in$ 1 999 918			
Number of 30 participants			
Coordinator French National Institute for Agricultural Research INRA, France			
Contact person Abdenour Benmansour E Abdenour.Benmansour@jouy.inra.fr			
Website www.anihwa.eu			
Participants			
AT Austrian Federal Ministry of Health BMG			
BE Federal Agency for the Safety of the Food Chain FASFC			
BE National Fund for Scientific Research FRS-FNRS			
Veterinary and Agrochemical Research Centre CODA-CERVA			
Federal Veterinary Office FVO			
Ministry of Agriculture, Natural Resources and Environment MOA			
Ministry of Agriculture of the Czech Republic MZE			
Federal Ministry of Education and Research BMBF			
DE Federal Ministry of Food, Agriculture and Consumer Protection BMELV			
DE Federal Agency of Agriculture and Food BLE			
DE Jülich Research Centre JUELICH			
DK Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI			
ES National Institute for Agriculture, Technology and Food Research INIA			
FI Ministry of Agriculture and Forestry MMM			
FR Agency for Food, Environmental and Occupational Health & Safety ANSES			
FR French National Institute for Agricultural Research INRA FR INRA Transfert IT			
INRA Transfert IT			
National Agency for Research ANR			
GR Hellenic Agricultural Organization DEMETER			
IE Department of Agriculture, Fisheries and Food DAFF			
IL Ministry of Agriculture and Rural Development Veterinary Services and Animal Health VSAH			
IT Ministry of Agricultural, Food and Forestry Policies MiPAAF			
IT Ministry of Health HM-DVPHNFS			
LT Veterinary Academy of Lithuanian University of Health Science LUHS			
NL Ministry of Economic Affairs EZ			
NL The Netherlands Food and Consumer Product Safety Authority NVWA NO Research Council of Norway RCN			
Research Council of Norway RCN Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS			
Biotechnology and Biological Sciences Research Council BBSRC			

UK Biotechnology and Biological Sciences Research Council BBSRC UK The Secretary Of State For Environment, Food And Rural Affairs DEFRA

# **Objective**

The activities of consumer groups and animal protectionists and the effects of large-scale sanitary crises have increased the awareness that animal production is more than just an industry. Farm animal welfare is now clearly an important issue for people across Europe and there is clear demand for higher animal welfare standards. Exotic or emerging infectious threats are ever present and their potential environmental consequences are a growing concern. Endemic and production diseases are often overlooked, although they exert the maximum trouble to animal welfare. The disease threats to the livestock industry have increased steadily as a result of intensification of livestock production, globalisation, evolving pathogens and climate change.

Building on the experience and achievements of the previous ERA-NET EMIDA, the Animal Health and Welfare ERA-NET (ANIHWA) aims to increase cooperation and coordination of national research programmes on animal health and welfare of farm animals, including fish and bees. The cooperation and coordination among the partners will be deepened by systematic exchange of information and mapping of national research activities and facilities, gap analysis and preparation of a dedicated strategic research agenda, thorough assessment of the funding mechanisms with increased number of joint calls and finally strategic activities aimed at a sustainable development and extension of the network

### Consortium

The consortium consists of 30 partner organisations from 19 countries: Member State Countries (17); Associated Countries (2). The consortium will be led by INRA (France). The consortium represents the leading national financing bodies for Animal Health And Animal Welfare research in the EU, with funds estimated at over EUR 250 million annually. The consortium contains members from the different zones from Scandinavia to the Mediterranean and Eastern Europe and with interest in the various livestock sectors including fish, bees and horses as food producing animals. It also includes funders of basic, strategic and applied science, allowing a joined-up approach, which should improve delivery.

# Mapping and scoping activities

Two Work Packages are aimed at mapping and research gap analysis:

WP2: Mapping of existing research resources and programmes in Animal Health and Welfare. The objective of WP2 is to evaluate and analyse existing research and to increase exchange of information through the establishment of a common open web based archive for mapping of existing research programs, funds and capacities in all the countries participating in the consortium. Building up from EMIDA, It will develop the basic data resources and analysis tools for the ERANET users and for long-term cooperation.

WP3: Gap Analysis and Strategic research agenda development in animal health and welfare. WP3 will conduct a gap analysis study on AH and WF research across EU member states and associated countries. WP3 will Elaborate a framework for transnational research and identify potential synergies between AH and WF partners to improve their research capacities and enhance future joint activities and transnational research cooperation in animal health and welfare.

### Joint calls

Up to three generic large calls and up to two small focused on request calls are foreseen during the ANIHWA activity period.

### First call 2012

First transnational call for proposals launched 17 September 2012, closed 15 February 2013.

It covers the following four topics:

- Promoting research on the interface between animal health and welfare: development of practical animal-based indicators of animal health and welfare, and implementation of new husbandry strategies ensuring good health and welfare
- Development of knowledge which may lead to tools for diagnosis and disease prevention, including vaccines
- Improvement of preparedness for emerging and exotic diseases (including vector-borne diseases and zoonosis) by epidemiological approach to risk pathways identification
- Antimicrobial and anthelmintic resistance, and development of alternative curative and preventive therapies, like biotherapeutics and other potential alternatives.

Only transnational projects will be funded, therefore each proposal must involve a minimum of three partners (and a maximum of ten) from at least three and a maximum of eight different ANIHWA-countries involved in funding the call. Research groups from other countries, including from outside Europe, are welcome provided they have their own secured resources.

Projects will be funded for a maximum period of three years.

In this call 20 funding organisations were involved from 16 countries. The call budget was a total of approximately EUR 14 million. From the 67 full-proposals received 10 projects were recommended for funding: three projects under topic 1, four projects under topic 2, two projects under topic 3 and one project under topic 4.

Projects funded:

- Bru-EPIDIA Brucellosis in wildlife and domestic animals: development of a direct diagnostic method and assessment of genetic diversity of Brucella melitensis and B. suis biovar 2 strains in the EU. Coordinator: ANSES, France. Participating countries: Spain, France, Italy
- FareWellDock Ending tail docking and tail biting in the EU - Hazard characterization and exposure assessment of a major pig welfare problem. Coordintor: University of Helsinki, Finland. Participating countries: Germany, Denmark, Finland, France, The Netherlands, Norway, Sweden, United Kingdom
- IUEPPR Improved understanding of the epidemiology of peste-des-petits ruminants. Coordinator: The Pirbright Institute, United Kingdom. Participating countries: Germany, France, Sweden, United Kingdom
- KOlimastIR Controlling the impact of Escherichia coli mastitis through modulation of immune responses. Coordinator: University of Glasgow, United Kingdom. Participating countries: Belgium, Israel, France, United Kingdom
- LIVEepi -Prediction and Control of Vectorand Movement-Borne Livestock Epidemics. Coordinator: University of Warwick, United Kingdom. Participating countries: Italy, France, The Netherlands, Sweden, United Kingdom
- MADISUP Marek's Disease Virus induced immunosuppression: From diagnosis to vaccination. Coordinator: INRA, France. Participating countries: Germany, France, The Netherlands, United Kingdom
- RABHO Rabbit housing Development and assessment of alternative animalfriendly housing systems for rabbit does with kits and growing rabbits. Coordinator: Justus Liebig University Giessen, Germany. Participating countries: Germany, Spain, France, Italy

- 8. NADIV Co-circulation of avian influenza and velogenic Newcastle disease viruses -impact on pathogenesis, immune disease and prevention. response Coordinator: Istituto Zooprofilattico Sperimentale delle Venezie, Italy. Participating countries: Belgium, Israel, Italy, Sweden
- 9. TURKEYWELFARE Improving turkey health and welfare by reducing foot pad dermatitis. Coordinator: Wageningen UR Livestock Research, The Netherlands. Participating countries: Italy, The Netherlands, United Kingdom
- 10. SporeBiotic Control of Clostridium difficile: an Emerging Threat to the European Livestock Industry. Coordinator: Royal Holloway, University of London, United Kingdom. Participating countries: Denmark, Germany, United Kingdom

### Second call 2013

The second transnational call for proposals was launched 16th September 2013.

Deadlines: pre-proposal phase call closes on 19th of december, 2013; full-proposal phase call closes on 21th of may, 2014.

It will cover the following four topics:

- Topic 1: Promoting research integrating animal health and welfare: development of animal-based indicators of animal health and welfare, development and implementation of new husbandry systems ensuring good health and welfare.
- Topic 2: Development of knowledge, which may lead to new or improved tools for diagnosis and disease prevention, including vaccines.
- Topic 3: Improvement of preparedness for emerging and exotic diseases (including vector-borne diseases and zoonoses) by an epidemiological approach to risk pathways identification.
- Topic 4: Antimicrobial and anthelmintic resistance, and development of alternative curative and preventive therapies.





# ARIMNet

### Coordination of Agricultural Research in the Mediterranean



### PROJECT DETAILS

Perio	d	From To	2008-10-01 2013-03-31		
Follow	w-on ERA-NET	ARIMNet 2			
Proje	ct reference	219262			
Programme acronym		FP7-KBBE			
Topic	identifier	KBBE-2007.1.2.07			
Title		ERA-NET for Coordination of Agricultural Research in the Mediterranean			
Contr	act type	Coordination (or Networking) Action			
Total cost EU contribution		€ 1 236 752 € 999 999			
Number of participants		13			
Coordinator		French National Institute for Agricultural Research INRA, France			
Contact person		Florence Jacquet T +33-499612635 E florence.jacquet@supagro.inra.fr			
Website		www.arimnet.net			
Participants					
CY	Agricultural Research Institute ARI				
DZ	National Institute of Agricultural Research of Algeria INRAA				
EG	Agricultural Research Centre ARC				
ES	S National Institute for Agriculture, Technology and Food Research INIA				
FR	Agricultural Research for Development CIRAD				

- FR Agricultural Research for Development CIRAD
- FR French National Institute for Agricultural Research INRA
- GR
   National Agricultural Research Foundation NAGREF

   IL
   Ministry of Agriculture and Rural Development MOARD
- IT Ministry of Agricultural, Food and Forestry Policies MiPAAF
- MA Agricultural and Veterinary Institute Hassan II IAV
- PT Foundation for Science and Technology FCT
- TN \$ Institution for Agricultural Research and Higher Education <math display="inline">\$ IRESA \$
- TR Ministry of Agricultural and Rural Affairs General Directorate of Agricultural Research GDAR

# **Objective**

The ARIMNet project is intended to promote the coordination of national research activities and to identify joint research programmes among the countries of the Mediterranean area, to fight fragmentation and exploit synergies.

Agricultural research in the Mediterranean is characterised by three main features:

- it is scattered within the EU members and in Mediterranean Partner Countries as well as most of the problems and challenges that the Mediterranean agriculture is facing are shared by all the countries in the area and even further,
- its objectives are largely the same in the whole area, even if priorities can vary from one country to another,
- the conditions resulting from climate change as well as the objective of sustainable development and production need to rethink agricultural research in all the countries and to begin its alignment in the whole area to increase its impact.

This situation allows and requires a coordination action at the level of the Mediterranean (among EU members and between them and the other Mediterranean countries) in fostering the convergence of national programmes and in founding a new critical mass to address the key issues such as the growing demand for safer, healthier and higher quality food; the sustainable production and use of renewable bio-resources.

### Consortium

The ARIMNet ERA-NET consist of 13 partner organisations from 12 countries and two international associated organisations: International Centre for Advanced Mediterranean Agronomic Studies CIHEAM and International Center for Agricultural Research in the Dry Areas ICARDA.

# Mapping and scoping activities

The countries of the Mediterranean basin face a number of similar problems in relation to agriculture, as regards the use and management of natural resources, such as soil and water, crop protection, emerging and endemic disease and threats to the security and sustainability of agricultural production resulting from climate change. Given that the agro-food sector and rural development play a crucial role to guarantee environmental sustainability, healthy life improving, economic development and social stability, priorities have been established to address the future mid and long-term challenges.

Three topics that are interrelated have been identified:

Production systems and their components.

Facing climatic change and pressure in water availability, protecting the natural resources and the environment will need an evolution of the current agricultural production practices. This requires researches on several issues that concern different aspects of agricultural production, to improve simultaneously the productivity of agricultural system and their sustainability and resilience. Several issues have to be addressed in this perspective: genetic breeding of varieties resistant to drought and to climate hazards, use of local species biodiversity, development of new farming systems combining different activities and species to use their different sensitivities to hazards, diversification of cropping systems using local crop species, etc.

Enhancing the advantages of Mediterranean agriculture in developing products with high

### added value.

Several products benefiting from specific Mediterranean natural advantages and knowhow are already competitive and provide high added value to farmers and other actors in the supply chains (fruit, vegetables, olive oil, etc.). They already benefit from a domestic and international demand for products entering in the Mediterranean diet. However researches are needed to enhance their development in a way that they can really contribute to the economic development of rural areas. Research topics can concern different stages of the food chain: production, food processing, transport, marketing and policies.

Sustainable management of land and natural resources.

Conservation of water resources and soil fertility, protection of biodiversity are major challenges in the Mediterranean area. Risks of degradation are high, in relation with unsustainable agricultural techniques, increase of inputs use, climate change. They have to be address at the farm level, but also at larger scale. Some issues need to be tackled at the river basin level, some others on larger areas, even in some cases (e.g. water management) on international level. They need integrated approaches combining different disciplines.

# Joint calls

### First call 2011

In 2011 ARIMNet has launched a call for transnational research projects proposals. This call has been managed under the coordination of ARIMNet WP4 Leader, IAV Hassan II (Morocco) and ARIMNet coordinator, INRA (France). The scope of the call and the evaluation procedures have been decided and designed by the Steering Committee members and the funding agencies involved in this call.

This call was aimed to enable collaborative interdisciplinary projects based on complementarities between scientists, disciplines and countries. Its objective was to promote international collaboration to create research consortia in order to respond appropriately to the global stakes and challenges Mediterranean Agriculture is facing.

Three topics have been prioritized:

- Production systems and their components: Developing sustainable agricultural production in a context of increasing ecological and climatic stresses
- Food chain from production to distribution: Enhancing the advantages of Mediterranean agriculture in developing products with high added value
- Landscape and resources uses for agricultural and environmental purposes: Sustainable management of land and natural resources

Projects funded:

- APMed Apple and Peach in Mediterranean orchards – Integrating tree water status and irrigation management for coping with water scarcity and aphid control. Coordinator: INRA (France). Participating countries: France, Israel, Italy, Morocco, Spain
- ARIDWASTE Development of specific agricultural practices with the use of recycled wastes suitable for intensively cultivated Mediterranean areas under degradation risk. Coordinator: NAGREF-DEMETER (Greece). Participating countries: Greece, Israel, Italy, Spain
- CLIMED The future of Mediterranean Livestock Farming Systems: Opportunity and efficiency of Crops – Livestock Integration. Coordinator: CIRAD (France). Participating countries: France, Morocco, Egypt

- DOMESTIC Mediterranean biodiversity as a tool for the sustainable development of the small ruminant sector: from traditional knowledge to innovation. Coordinator: NAGREF-DEMETER (Greece). Participating countries: Greece, France, Cyprus, Morocco
- MEDILEG Breeding, agronomic and biotechnological approaches for reintegration and revalorization of legumes in Mediterranean agriculture. Coordinator: CSIC (Spain). Participating countries: Spain, Morocco, France, Italy, Tunisia, Portugal, Egypt, Algeria
- PESTOLIVE Contribution of olive history for the management of soil-borne parasites in the Mediterranean Basin. Coordinator: IRD (France). Participating countries: France, Greece, Italy, Morocco, Spain, Tunisia, Turkey
- POHMED Potato Health Managed for Efficiency and Durability. Coordinator: INRA (France). Participating countries: France, Algeria, Morocco, Egypt
- 8. REFORMA Resilient, water- and energy-Efficient FORage and feed crops for Mediterranean Agricultural systems. Coordinator: CRA (Italy). Participating countries: Italy, France, Morocco, Algeria, Tunisia, United States
- SAFEMED Food safety regulations, market access and international competition. Coordinator: INRA (France). Participating countries: France, Italy, Morocco, Tunisia, Spain, Algeria
- SWIPE Predicting whitefly population outbreaks in changing environments. Coordinator: ARO (Israel). Participating countries: Israel, France, Spain, Greece, Italy, Turkey, Switzerland, United States





# ARIMNet2 (under negotiation)

### **Coordination of Agricultural** Research in the Mediterranean

### PROJECT DETAILS

Period	From To	2013-12-01 (expected) 2017-11-30 (expected)		
Project reference	618127			
Programme acronym	FP7-KBBE			
Topic identifier	KBBE.2013.1.4-03			
Title	Coordination of Agricultural Research in the Mediterranean			
Contract type	Coordination (or Networking) Action			
Total cost EU contribution	€ 2 310 300 € 1 998 700 (requested)			
Number of participants	25			
Coordinator	French National Institute for Agricultural Research INRA, France			
Contact person	Florence Jacquet T +33-499612635 E florence.jacquet@supagro.inra.fr			
Website	www.a	rimnet.net		
Participants				
AL Center for Agricult	ure Techi	nology Transfer Fushe Kruje QTTB		
CY Agricultural Resea	rch Instit	ute ARI		
DZ Ministry of Higher	Ministry of Higher Education and Scientific Research MESRS			
DZ National Institute	National Institute of Agricultural Research of Algeria INRAA			
EG Academy of Scien	Academy of Scientific Research and Technology ASRT			
EG Agricultural Resea	Agricultural Research Centre ARC			
ES National Institute	National Institute for Agriculture, Technology and Food Research INIA			
HR Institute for Adriat	Institute for Adriatic Crops and Karst Reclamation KRS			
FR French National In	French National Institute for Agricultural Research INRA			
FR National Agency fi	National Agency for Research ANR			
FR Agricultural Resea	Agricultural Research for Development CIRAD			
IL Ministry of Agricul	Ministry of Agriculture and Rural Development MOARD			
IT Institute of Agricu	Institute of Agricultural Economics INEA			
IT Ministry of Agricul	Ministry of Agricultural, Food and Forestry Policies MiPAAF			
GR Hellenic Agricultur	Hellenic Agricultural Organisation – Demeter HAO			
MA Agricultural and V	Agricultural and Veterinary Institute Hassan II IAV			
MA Ministry of Higher Training	Ministry of Higher Education, Scientific Research & Management Training			
	Office of the Prime Minister MCST			
	Foundation for Science and Technology FCT			
	Ministry of Education, Science, Culture and Sport MIZS			
, ,	Ministry of Agriculture and the Environment MKO			
2	Institution for Agricultural Research and Higher Education IRESA			
, 5	Ministry of Higher Education and Scientific Research MESRT			
Agricultural Resea	Ministry of Agricultural and Rural Affairs - General Directorate of Agricultural Research GDAR			
INT International Cent	International Centre for Agricultural Research in the Dry Areas ICARDA			

INT International Centre for Advanced Mediterranean Agronomic Studies -Institute Agronomique Méditerranéen de Montpellier CIHEAM-IAMM

# **Objective**

ARIMNet2 has the following objectives:

1. To develop an integrated strategic research agenda (ISRA) describing key priorities for Europe and Mediterranean Partners Countries in the field of Mediterranean Agriculture Research and Innovation (WP1). The ISRA will cover short. medium and long period needs and common issues of concern to the participating partner states. The ISRA will be used to strengthen the cooperation between national research programmes together with agreements on how the research agenda is to be implemented and reviewed. It will be done taking into account complementarities with other initiatives, in particular the JPI FACCE and Water JPI and the INCO-Nets related projects (MIRA and SPRING projects and the 2013 ERANETMED).

2. To consolidate the cooperation mechanism initiated in ARIMNet through the set up of two novel joint calls for transnational research projects (WP2) and the elaboration of guidelines for monitoring the research projects funded inside joint calls (WP3).

3. To demonstrate the feasibility of joint activities in some areas relevant to the project and implement those that are jointly strategic. During ARIMNet some crucial issues have been identified in a perspective of capacity development: training of young researchers, mobility and networking of researcher laboratory, sharing of infrastructures and data. Among them, ARIMNet2 will develop pilot actions (WP4) i) to develop scientific exchanges between researchers and research groups in the Mediterranean, (ii) to strengthen the coordination and coherence in research management between regional and national institutions (universities and research centers) and (iii) develop capacity building in scientific methods, concepts and lab management.

4. To foster agricultural knowledge and innovation system in order to ensure that the agricultural research will impact the stakeholders of the Mediterranean basin and support their economies (WP5). This work package will mainly focus on the integration of innovation specifically through the ideas about the Agricultural Knowledge and Innovation Systems (AKIS) that has been triggered inside the SCAR-CWG and will extend this reflection to the Mediterranean area.

### Consortium

The ARIMNet2 consortium consist of 25 partner organisations from 16 countries and two international organisations: International Centre for Advanced Mediterranean Agronomic Studies CIHEAM and International Center for Agricultural Research in the Dry Areas ICARDA.

### Mapping and scoping activities

The objective of the WP1 of ARIMNet2 is to develop a common scientific and strategic agenda that could lead to a roadmap for enhancing cooperation in the field of Mediterranean Agriculture. Based on the common knowledge produced in ARIMNet, a further step will be achieved by deepening the scientific and strategic analysis of the challenges for the future and identifying actions. A specific WP is focused on strengthening the links between research and innovation in the Mediterranean Agriculture. It will provide a common analysis on current functioning of the Agricultural Knowledge and Innovation Systems in the Mediterranean countries and recommendations related with research calls (like guidelines, selection criteria, etc.) that could be used to enhance the link between research and innovation.

### Joint calls

Based on the knowledge accumulated in ARIMNet, ARIMNet2-WP2 will focus on defining and implementing at least two transnational calls for research projects. Lessons learnt from ARIMNet 2011 call will be the basis for moving forward and to improve procedures for launching calls in ARIMNet. This will give an administrative basis for sustainable cooperation between research funders as well as for synergistic and efficient future implementation of joint calls.

In advance to the call implementation the financial commitments of the participating funding organisations will be collected and funding agencies topics priorities will be defined. The possibility to use different funding models such as "virtual common pot model or "mixed model" will be explored. Tools, procedures and documents for launching joint calls will be developed on basis of experiences made in the ARIMNET and other ERA-NETs. After the establishment of a Call Board Office (CBO), up to two transnational. Calls on applied research will be launched and the whole call procedure will be conducted, including the proposals collection, the expert evaluation and the selection processes. To avoid duplication of work the task leaders will collaborate very closely and a minimum of the two calls will be conducted strongly consecutive and coordinated. The aim is to create sustainable mechanisms and documents for call implementation to facilitate each institution to launch transnational calls after the end of the ERA-NET reaching a possible future article 185 on the Mediterranean Area.





# **BiodivERsA2**

Cooperation and shared strategies for biodiversity research programmes in Europe



# Objective

The loss of biodiversity and the degradation of ecosystems are major scientific and societal challenges. Addressing them and providing scientific support to policy requires a coherent research framework, with coordinated strategies and programmes at the regional and international levels, which are the relevant scales for many biodiversity issues.

By networking 21 funding agencies from 15 countries, BiodivERsA2 aims to strengthen the ERA on biodiversity. Building on the experience of the ERA-NET BiodivERsA, but with a wider, more balanced network, BiodivERsA2 promotes a strategy for biodiversity research, in partnership with other players in the field, and organizes joint funding to better integrate biodiversity science.

The specific objectives of BiodivERsA are to:

- develop an efficient agenda-setting mechanism for joint activities (including joint calls), taking into account existing research strategies and agendas at international levels along with national and institutional priorities
- instate a recurrent and visible funding opportunity for transnational biodiversity research projects
- play an active role in the processes and interfaces to inform policy and users
- demonstrate the usefulness and prepare
   the establishment of a longer term funding

### PROJECT DETAILS

Perio	d	From To	2010-11-01 2014-10-31	
Proje	ject reference 266546		6	
Progr acror	ramme FP7-ENVIRONMENT nym		IVIRONMENT	
Торіс	pic identifier ENV.2010.2.1.4-2			
Title		ERA-net on Biodiversity: Towards integrated European biodiversity research strategy and programmes		
Contr	act type	type Coordination (or Networking) Action		
Total EU co	otal cost         € 2 644 399           U contribution         € 1 999 600			
	per of Cipants	21		
Coord	linator	Founda France	ation for Research on Biodiversity FRB,	
Conta	act person	T +33 6	Le Roux 531803820 r.leroux@fondationbiodiversite.fr	
Webs	ite	www.bi	iodiversa.org	
Partio	cipants			
AT	Austrian Science Fund FWF			
BE	Federal Public Planning Service Science Policy BELSPO			
BG	Bulgarian National Science Fund BNSF			
DE	German Aerospace Center EV DLR			
DE	German Research Foundation DFG			
EE	Estonian Research Council ETAG			
ES	Ministry of Science and Innovation MICINN			
FR	Foundation for R	esearch	on Biodiversity FRB	
FR	Ministry for the Protection of Nature and the Environment MEDDE			
FR	National Agency for Research ANR			
HU	Ministry of Rural Development KvVM			
LT	Research Council of Lithuania RCL			
NL	The Netherlands Organisation for Scientific Research NWO			
NO	Research Council of Norway RCN			
PT	Foundation for Science and Technology FCT			
SE	Swedish Environmental Protection Agency SEPA			
SE	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS			
TR	Ministry of Food Agriculture and Livestock MoFAL			
UK	Joint Nature Conservation Committee JNCC			
UK	Natural Environment Research Council NERC			
UK	The Secretary Of DEFRA	f State F	or Environment, Food And Rural Affairs	

platform for biodiversity research

The project has six work packages. WP1 promotes networking and sharing of best practice, ensuring the rapid integration of new members and the adoption of a framework for joint calls. WP2 analyses the biodiversity research landscape and enhances cooperation with stakeholders, with science-policy interfaces and with relevant infrastructure programmes. Using outputs of WP1&2, WP3 produces a roadmap for joint funding allowing the implementation of annual calls for research proposals. These activities help in demonstrating the usefulness of a recurrent and consequent funding opportunity as offered by BiodivERsA for European biodiversity research. This will provide solid grounds for the network to become a long term funding platform for European biodiversity research, which will be fostered by WP4. WP5 develops and implements a communication strategy and enhances project web-products. WP6 allows an efficient coordination and management.

### Consortium

All partners in BiodivERsA have a national or regional responsibility for funding biodiversity research. In the consortium 15 European Union member states and associated countries are represented through 21 partner organisations. Since 2012 two observer organisations joined: National Science Centre NCN (Poland) and French National Agency for Water and Aquatic Environments ONEMA (France).

### Mapping and scoping activities

To foster a coherent vision for the setting of priorities in biodiversity research, as well as to avoid wasteful overlaps, BiodivERsA has established a common strategic agenda to support European biodiversity research. This agenda is built upon existing research and biodiversity strategies and priorities (at agency, national and international levels) allowing the identification of common thematic priorities among BiodivERsA partners. In order to remain relevant against pressing issues in the field of biodiversity research, policy and management in rapidly evolving landscape, the BiodivERsA agenda is updated yearly. An updated version can be found here: http://www.biodiversa.org/70.

In addition to annual joint calls, BiodivERsA partners pursue a set of activities that include mapping and horizon scanning and the development of best practices and guidelines to promote and enhance the profile of pan-European biodiversity research. In this context, several BiodivERsA reports are currently being developed. In particular, the "Report on existing institutional biodiversity research policies and strategies of BiodivERsA2 partners and identification of common priorities" and the "BiodivERsA report on international strategies for biodiversity research" will offer a horizon scan of the European-wide and international landscape in which BiodivERsA evolves. Such analyses of national and international priorities for biodiversity research, in addition to liaison with main international and European initiatives, ensures that BiodivERsA's strategy is not only coordinated amongst partners but also coherent with and relevant to the biodiversity research field at national and international scales.

# **Joint Calls**

### First call 2010

Biodiversity and ecosystem services, and their valuation

The call addressed the following themes, across all ecosystems and organisms:

- Relationships between biodiversity and ecosystem services;
- Valuation of biodiversity and ecosystem services (monetary and non-monetary), and better incorporation of biodiversity and ecosystem services into society and policy.

The budget was EUR 9.5 million.

Projects funded:

1. APPEAL - Assessment and valuation of pest suppression potential through biological control in European agricultural landscapes. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: Sweden, Germany, Austria.

- 2. CONNECT -Linking biodiversity conservation and ecosystem services: advancing insights in tradeoffs and synergies between biodiversity, ecosystem functioning and ecosystem service values for improved integrated biodiversity strategy. Coordinator: Institute for Environmental Studies, University of Amsterdam (The Netherlands). Participating countries: The Netherlands, France, Germany, Sweden, Spain.
- FarmLAND European network on farmland heterogeneity, biodiversity and ecosystem services. Coordinator: National Centre for Scientific Research – CEFE, Montpellier (France). Participating countries: France, Spain, Germany, United Kingdom, Canada.
- INVALUABLE Integrating valuations, markets and policies for biodiversity and ecosystem services. Coordinator: Institute for Sustainable Development and International Relations (France). Participating countries: France, The Netherlands, Spain, Germany.
- SmallFOREST Biodiversity and ecosystem services of small forest fragments in European landscapes. Coordinator: Jules Verne University of Picardie (France). Participating countries: France, Germany, Spain, Sweden, Belgium.
- SCIN Soil Crust InterNational (SCIN) -Understanding and valuing biological soil protection of disturbed and open land surfaces. Coordinator: University of Kaiserslautern (Germany). Participating countries: Germany, Spain, Austria, Sweden.
- URBES Urban biodiversity and ecosystem services. Coordinator: Stockholm Resilience Centre (Sweden) Participating countries: Sweden, Spain, The Netherlands, Germany, Austria, Finland.

### Second call 2011

Biodiversity dynamics: developing scenarios, identifying tipping points and improving

resilience.

The call addressed the following themes, across all ecosystems and organisms:

- Developing integrated biodiversity scenarios
- Understanding and predicting biodiversity resilience and tipping points
- Decision support for biodiversity policy and management

The budget was EUR 8.8 million.

Projects funded:

- BUFFER Partially protected areas as buffers to increase the linked socialecological resilience in coastal ecosystems. Coordinator: National Centre for Scientific Research, CRIOBE (France). Participating countries: France, Norway, Portugal, Sweden.
- 2. CoForTips Congo basin forests: tipping points for biodiversity conservation and resilience of forested social and ecological systems. Coordinator: Centre for International Cooperation in Agronomic Research for Development (France). Participating countries: France, Austria, Belgium.
- 3. EC21C European conservation for the 21st century. Coordinator: University of Evora (Portugal). Participating countries: Portugal, France, Germany, Sweden.
- 4. FISHCON Biodiversity scenarios for fragmented landscapes; freshwater connectivity and the future of fish diversity. Coordinator: Institute for Nature Research (Norway). Participating countries: Norway, Germany, Sweden.
- LIMNOTIP Biodiversity dynamics and tipping points in our future freshwater ecosystems. Coordinator: University of Lund (Sweden). Participating countries: Sweden, Norway, Austria, Germany.
- REGARDS Resilience of marginal grasslands and biodiversity management decision support. Coordinator: National Centre for Scientific Research (France). Participating countries: France, Germany, Austria, Belgium, Norway.

- SIGNAL European gradients of resilience in the face of climate extremes. Coordinator: University of Bayreuth (Germany). Participating countries: Germany, Belgium, Bulgaria, France.
- 8. TIPPINGPOND Tipping points, biodiversity, resilience and ecosystem services: Ponds as model systems. Coordinator: Université Catholique de Louvain (Belgium). Participating countries: Belgium, Germany, France, Sweden.
- 9. TipTree Scenarios for forest biodiversity dynamics under global change in Europe: Identifying micro-evolutionary scale tipping points. Coordinator: Institut National de la Recherche Agronomique (France) Participating countries: France, Germany, Sweden.

### Third call 2012

Launched in November 2012: Invasive species and biological invasions

The call addresses the following themes, across all ecosystems and organisms:

- Demonstrating and characterising the impacts of biological invaders
- Understanding mechanisms of biological invasions and levers for mitigating and/or reversing the impacts of biological invaders
- Evaluating the interactions between biological invasions and other global environmental changes
- Biological invasions and public perceptions
- Biological invasions and adaptation

The budget was a total amount of over eight million euros.

Projects funded:

- DIARS Detection of invasive plant species and assessment of their impact on ecosystem properties through remote sensing. Coordinator: Flemish Institute for Technological Research (Belgium). Participating countries: Belgium, France, Germany
- 2. EXOTIC EXperimentally Orientated genomics to Tackle Insects adaptive

Challenges during bio invasions: the ladybird Harmonia axyridis as a model species. Coordinator: Institut National de Recherche Agronomique – INRA-CBGP (France). Participating countries: Belgium, France, Germany

- FFII Forecasting Future Invasions and their Impacts. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: France, Germany, Sweden
- GC-INVAMOFECT Global change and invasive mosquitoes as infectious disease risks in Europe. Coordinator: Centre National de la Recherche Scientifique/University of Lyon – CNRS, University of Lyon (France). Participating countries: Austria, Germany, France
- INVAXEN INVAsive biology of XENopus laevis in Europe: ecology, impact and predictive models. Coordinator: Centre National de la Recherche Scientifique/ Muséum National d'Histoire Naturelle – CNRS/MNHN (France). Participating countries: Belgium, France, Germany, Portugal
- PROBIS Heterogeneity of patterns and processes along biological invasion successions. Coordinator: Centre National de la Recherche Scientifique – CNRS (France). Participating countries: France, Germany, Sweden, Turkey
- RESIPATH Responses of European Forests and Society to Invasive Pathogens. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: Austria, Belgium, Bulgaria, Germany, France, Norway, Portugal, Sweden, Turkey
- SalmoInvade Causes and consequences of invasions of aquatic ecosystems by nonnative salmonids. Coordinator: University of Gothenburg (Sweden). Participating countries: France, Germany, Norway, Sweden
- 9. WholsNext Climate change and escaping ornamentals: Predicting the next generation of European plant invaders. Coordinator: University of Konstanz (Germany). Participating countries: Austria, France, Germany

### Fourth call 2013 (co-branded with FACCE-JPI)

Launched in November 2013. For this call a total amount of EUR 8.5 to 9.7 million has been provisionally reserved by the participating partner organisations.

Joint BiodfivERsA2 and FACCE-JPI call on "Promoting synergies and reducing tradeoffs between food supply, biodiversity and ecosystem services".

Projects' pre-registration takes place in mid-December 2013 and complete applications' submission in mid-February 2014. The selected projects and funding magnitude will be known in June/July 2014. By the end of the four year project, BiodivERsA will have allocated funds of approximately EUR 34 million to qualifying projects. On the basis of an initial EC funding of two million euros, this represents a 'leverage' effect of 17 times the EC's original investment. If non-monetary contributions involved in projects are included, this leverage rises to an even more impressive 25 times.





# **CAPITA**

### Catalytic Processes for Innovative Technology Applications



### PROJECT DETAILS

#### Period From 2012-01-01 2015-12-31 То 266543 Project reference Programme acronym FP7-NMP Topic identifier NMP-FP7-2010-4-0-9 Title Catalytic Processes for Innovative Technology Applications Contract type Coordination (or networking) actions € 1 628 947 Total cost EU contribution € 1 499 038 Number of participants 6 The Netherlands Organisation for Scientific Research NWO, The Coordinator Netherlands Nico Kos T +31 70 344 06 96 Contact person E capita@nwo.nl Website www.era-capita.eu Participants

- ES Ministry of Economy and Competitiveness MINECO
- FR National Centre for Scientific Research CNRS
- GR Centre for Research & Technology Hellas CERTH
- GR General Secretariat for Research and Technology GSRT
- IT Ministry of Education, Universities and Research MIUR NL The Netherlands Organisation for Scientific Research NWO
- INC The Netherlands Organisation for Scientific Research NWO

### **Objective**

CAPITA aims to establish an enduring transnational joint programme in applied research leading to innovative and exploitable process technology for chemicals, materials, and energy. The ERA-NET is designed to have a substantial effect on the structuring and the effectiveness of the ERA in the fields of applied catalysis and related sustainable chemical research.

Core partners of the ACENET ERA-NET started the consortium, which aims to be extended geographically and by the inclusion of agencies involved in innovation support. The consortium aims to introduce new members, and to be flexible in how members participate. CAPITA will build collaborations both within Europe and worldwide with relevant programmes and institutions: the ETP SusChem and European Research Institute ERIC+ are engaged from the beginning of the project to bring both industrial and academic policy inputs to work on CAPITAs strategic agenda.

The ERA-NET begins where ACENET ended, with applied catalysis and catalytic reaction engineering, which comprises an essential group of enabling technologies for sustainable manufacturing and green chemistry. The scope will expand through the planned two calls and the formation of the Transnational Joint Programme to a wider approach to chemical process technology. The projects will include multidisciplinary science and engineering, with significant industrial involvement. To maximise the innovative potential of the research projects, the design of calls and project selection and management will be steered by best practice and assessment processes to take into account how new technology interacts with the business process, and the decision making requirements of speedy innovation. Training and education programmes aimed to support innovation will also be developed as part of the network's outreach programme.

### Consortium

The CAPITA consortium consists of six organisations from five different countries, The Netherlands, France, Spain, Italy and Greece. There are six associate members to the consortium: Agency NL (The Netherlands), IWT (Flanders, Belgium), FCT (Portugal), Irish Research Council (Ireland), Region of Puglia (Italy) and the Technology Strategy Board (United Kingdom), which are potential participants in CAPITA Joint Calls and other joint activities. Also there are three advisory members: DECHEMA (Germany) and the transnational advisory partners ERIC (Belgium) and Suschem (Germany).

Other organisations and agencies interested in transnational cooperation in the scientific fields of CAPITA are invited to participate in the consortium. As CAPITA continues to evolve and grow, the programme allows flexibility in various partnership models.

# Mapping and scoping activities

CAPITA ERANET is expected to deliver the European Catalysis Roadmap 2014 – 2020 (March 2014), which will be available to all stakeholders and will be used to identify relevant scientific themes, and through an annual updating process, provide the CAPITA Consortium with topics for research calls and education and reach-out activities.

The goal of this study is to examine, taking into account existing national and European policy documents, the challenges facing innovation

and sustainable development in chemicals manufacturing and energy production in Europe. To overcome those challenges it is needed to roadmap the developmental requirements in applied catalysis and process technology. These requirements are vital for addressing societal and industrial needs in energy, in environmental concerns for transportation and the quality of life and in sustainable chemistry for clean processes

and in sustainable chemistry for clean processes for the chemical and industrial intermediates and the switch from petrochemical feeds to recycled or renewable feeds.

A workshop with the participation of important stakeholders of the Applied Catalysis and Catalytic Reaction Engineering field was organized and held in Paris on 16 May 2013. The participants included representatives of Suschem ETP, ERIC+ European virtual institute, Japan Science and Technology Agency, Norwegian Science Council, National Science Foundation of USA, and Slovenian Science Foundation, researchers from different European universities and members of the CAPITA-consortium. After taking into account the presentations of the impact that the ACENET pilot call had on the Catalytic scientific community, and the convergence of existing roadmaps towards a global roadmap in catalysis, the workshop revealed the necessity of networking of the European and world wide research unities, as well the industrial need to bridge the growing gap between research and innovation.

The second CAPITA conference on European Catalysis is expected to take place on 15 January 2014 in Brussels. The meeting will aim at mapping the current innovation and technological challenges among the academic and industrial scientists of the field, and initiate a process for bottom up extraction of the theme of the second CAPITA joint call.

# Joint calls

### First call 2013

The first call for proposals was launched 25th of June 2013. The aim of this call is to fund innovative, transnational, R&D projects related

to Applied Catalysis and Catalytic Reaction Engineering within its thematic priority, titled: "Innovative catalysis for the monetization of low value carbon".

The first call for proposals entitled "Innovative catalysis for the monetization of low value carbon" was launched on 25th of June 2013. The call was aiming to fund innovative, transnational, R&D projects related to Applied Catalysis and Catalytic Reaction Engineering within its thematic priority. It utilized more than EUR 3.5 million from five partner and associated partner counties and regions, and is expected to bring on another million euros of private and non – monetary contributions. The call was closed on 2nd September 2013 and the outcome is to be announced.

### Second call 2014

A second transnational joint call has already started to being prepared for 2014. Based on the experience gained and the transparent CAPITA Call management processes, the consortium will utilise the assessment of the first joint call, the interaction with the stakeholders about the strategic orientations that should be followed, and the advisory group ideas on Innovation and technology to come up soon with a new attractive call theme. This will be communicated to National Funding Agencies inside and outside Europe to further attract new partners.

# Training and education

The International Catalytic Training Course 2014 in preparation is expected to take place in Italy, spring 2014.

The programme of the course is based on advancing education and discovery through knowledge open to industrial staff and young professionals (including PhD or Post-doc students), focussing on the design of processes, products and systems with sustainable development goals and constraints and will highlight how chemistry and catalysis, by using alternative and sustainable technologies of the 21st century, contribute to a sustainable future.

Topics to be addressed:

- Synthesis and characterization of catalytic nanomaterials with application in thermal and photocatalytic processes.
- Biomass conversion into fuels and chemicals (commodities and specialty) with implementation of the Biorefinery concept.
- Utilization of solar energy for water splitting and for driving high energy processes such as the conversion of CO2 into fuels.
- Monetization of low carbon chains such as those produced in the petrochemical industry (C2-C4 moieties).





# **C-IPM** (under negotiation)

Integrated Pest management (IPM) **ERA-NET** 

### PROJECT DETAILS

Title

AT

AT

BF

СН

#### Period From To Project reference not available vet FP7-KBBF Programme acronym Topic identifier KBBE 2013 1 4-02 Integrated Pest management (IPM) ERA-NET Contract type Coordination (or Networking) Action Total cost EU contribution € 2 484 982 € 1 998 228 Number of participants 32 Coordinator National Institute for Agricultural Research INRA, France Contact person Antoine Messéan E Antoine.Messean@grignon.inra.fr Wehsite not available yet Participants Austrian Agency for Health and Food Safety AGES Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW Agency for Innovation by Science and Technology IWT BE Walloon Agricultural Research Centre CRA-W Federal Office for Agriculture FOAG Ministry of Agriculture of the Czech Republic MZE

- CZ
- DF Federal Ministry of Food, Agriculture and Consumer Protection BMELV
- Federal Agency of Agriculture and Food BLE DF
- Julius Kuhn Institute JKI DF
- Ministry of Food Agriculture and Fisheries Danish Food Industry Agency DK DAFA
- EE Ministry of Agriculture EVPM
- FS National Institute for Agriculture, Technology and Food Research INIA Agrifood Research Finland MTT FI
- FI Ministry of Agriculture and Forestry MMM
- FR French National Institute for Agricultural Research INRA
- FR Ministry of Agriculture, Food and Forestry MAAF
- HU Szent István University SZIE
- IE Agriculture and Food Development Authority TEAGASC
- IT Ministry of Agricultural Food and Forestry Policies MiPAAF
- IT Emilia-Romagna Region - Agriculture Department RER
- LT Lithuanian Research Center for Agriculture and Forestry LRCAF
- NL Agricultural Research Institute DLO (part of Wageningen UR (University and Research Centre))
- NL Ministry of Economic Affairs, department of Agri-knowledge EZ
- The Netherlands Food and Consumer Product Safety Authority NVWA NI
- NO Research Council of Norway RCN
- Institute of Plant Protection IOR PL
- PL Plant Breeding and Acclimatization Institute IHAR
- PL Research Institute of Horticulture InHort
- PT General Directorate for Agriculture and Veterinary Affairs DGAV
- SE Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- TR Ministry of Food Agriculture and Livestock MoFAL
- Department for Environment, Food and Rural Affairs DEFRA ЦK

### **Objective**

The overall goal of C-IPM is to ensure a higher level of implementation of Integrated Pest Management among European farmers by creating synergies from national investments in research and extension, from European initiatives, and from private sector activities in the areas of Integrated Pest Management and minor uses. Preliminary work carried out in the SCAR CWG on IPM highlights the feasibility of generating added value via joint activities that range from information sharing and the creation of knowledge hubs to the development of joint transnational actions.

### The specific goals are:

To identify synergies and gaps in existing national and transnational programmes and from this define a IPM-specific strategic research agenda and associated implementation plan. C-IPM will analyse and map existing national policies, including research and extension programmes, as well as support, integrate, and complement on-going initiatives in IPM. This will pave the road towards an integration of existing national research programmes and activities whenever it provides an added value. In its mapping activities and focused studies. C-IPM will also look forward at the future of IPM in Europe, help develop a strategy on sustainable crop protection valid at the European level, and substantiate further research topics to be addressed in transnational calls or feed into the development of the Strategic Research Agenda.

To organise and fund joint transnational calls. C-IPM will adapt instruments, mechanisms and processes according to other ERA-NET experiences to enable common calls, common evaluation, and coordinated funding sources. Two transnational calls will be carried out during the course of C-IPM. Follow-up of funded projects after C-IPM will be prepared.

To ensure better translation of National and European IPM-related programmes into applicable innovations. C-IPM will support the formulation and implementation of national research programmes dedicated to the development of Integrated Pest Management strategies and will contribute to the implementation of NAPs by facilitating the sharing of national experiences on pesticiderelated policies. Special attention will be paid to integrate the European Innovation Partnership initiative in its Strategic Research Agenda.

# Consortium

The C-IPM consortium consists of 32 organisation from 21 different countries.

# Mapping and scoping activities

C-IPM will have various mapping and scoping activities, including:

Address the future of IPM in Europe through
 thematic workshops, the development of

collective position papers and foresight studies.

- Update and complement overall map of IPM research initiated in the SCAR CWG IPM to provide the general picture regarding ongoing, planned or desired R&D efforts to help implement the Framework Directive on the Sustainable Use of Pesticides (2009/128/EC) and to advance sustainable agriculture with respect to crop protection.
- Take stock of existing initiatives and analyse on minor uses problems without a sustainable solution and gather data from existing initiatives at the EU and international levels.
- Identify and assess merits of new approaches for IPM.

Based on these mapping activities, C-IPM will translate their outcomes into research and development needs and identify concrete R&D joint activities within C-IPM.

# Joint calls

C-IPM will adapt instruments, mechanisms and processes according to other ERA-NET experiences to enable common calls, common evaluation, and coordinated funding sources. Two transnational calls will be carried out during the course of C-IPM. Follow-up of funded projects after C-IPM will be prepared.





# **CIRCLE-2**

Climate Impact Research and Response Coordination for a Larger Europe



# **Objective**

Climate Change Impact assessment and related Adaptation research are emerging scientific and policy areas in Europe. Several international political frameworks. commitments and initiatives are currently acting as main scientifictechnological drivers and shaping research activities. Interactions between science and policy have developed into unprecedented levels of intensity. Expert scientific advice has been increasingly called upon to enable informed decision-making, but linking scientific knowledge and authoritative political decisionmaking is not a straightforward task.

Coordinating nationally developed knowledge (typically via research programmes) with European and international frameworks is a growing demand. Making sure that political investments such as the ones related to climate Adaptation are cost effective is a continuous need. Global challenges such as Climate Change makes the coordination of high quality research an absolute imperative to support national and European actions.

CIRCLE-2 is focused on the interface between Climate Change science and policy. Through the promotion of networking activities it aims to maximise the degree to which research outcomes address both national and European climate policy needs.

A structuring impact on the European Climate Change research landscape can only be

### PROJECT DETAILS

Period	From To	2010-05-01 2014-04-30
Project reference	249685	
Programme acronym	FP7	
Topic identifier	ENV.20	09.1.1.6.4
Title		T on Climate Change Impacts sponses
Contract type	Coordin	ation and support action
Total cost EU contribution	€ 227 € 199	
Number of participants	20	
Coordinator		tion of the Faculty of Sciences on University FFCUL, Portugal
Contact person		apela Lourenço Ia@siam.fis.fc.ul.pt
Website	www.cii	rcle-era.eu

#### Participants

- AT Environment Agency Austria EAA
- BE Public Agency Flanders Hydraulics EVFH
- DE German Aerospace Center Project Management Agency Dep. "Environment, Culture, Sustainability" PT-DLR
- EE Estonian Research Council ETAg
- ES Ministry of Economy and Competitiveness MINECO
- FI The Academy of Finland AKA
- FR Ministry for Ecology, Sustainable Development and Energy MEDDE
- GR Mariolopoulos-Kanaginis Foundation for the Environmental Sciences MKF
- HU Ministry of Rural Development MRD
- IE Irish Environmental Protection Agency EPA-I
- IL Israel Ministry of Environmental Protection IME
- IT Euro-Mediterranean Centre on Climate Change CMCC
- NL Knowledge for Climate Research Programme KvK
- PT Foundation for Science and Technology FCT
- PT Foundation of the Faculty of Sciences of Lisbon University FFCUL
- SE Swedish Meteorological and Hydrological Institute SMHI SE Swedish Environmental Protection Agency SEPA
- SE Swedish Environmental Protection Agency SEPA SE The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- TR Scientific and Technological Research Council of Turkey TUBITAK
- UK Department for Environment, Food and Rural Affairs DEFRA

achieved if joint research funding is put into practice and its results transferred in effective ways. CIRCLE-2 aims to further reinforce the coordination and cooperation between national and regional climate research programmes.

It is CIRCLE-2's intention to contribute to these efforts along three complementary ways:

- Support a common research agenda and joint programming foresight activities (WP DESIGN) helping to structure a common language and framework for policy relevant Adaptation research;
- Fund Adaptation research though transnational joint calls and other joint activities (WP FUND) contributing to a durable cooperation between European climate research programmes and their funders;
- Make available existing knowledge on Adaptation and foster the production of research along identified needs (WP SHARE) contributing to the development of a European knowledge base on Climate Change.

Vision of the CIRCLE ERA-NET:

- To coordinate European transnational research funding on Climate Change Impacts, Vulnerability and Adaptation (CCIVA) and to facilitate the transfer of research outcomes that European and national decision makers need to design effective yet economically efficient Adaptation initiatives and strategies.
- To share experiences and lessons learnt on CCIVA research funding and management and on the development of national and regional Adaptation practices.
- To encourage international cooperation with non-European countries and organisations as well as the involvement of countries with less diverse CCIVA research programmes.

Objectives of the CIRCLE ERA-NET:

 Establish a research funding network oriented towards Climate Change Impacts, Vulnerability and Adaptation (CCIVA) policy-relevant questions.

- Facilitate cooperation among Europe's national and regional CCIVA research programmes and their funders/managers.
- Promote a common strategic agenda on relevant CCIVA research areas and coordinate it with European framework programmes, policies and objectives.
- Design and Fund joint initiatives and joint calls for transnational CCIVA research proposals on identified knowledge gaps or needs.

### Consortium

The CIRCLE-2 consortium consists of 20 organisations from 17 different countries. Together with the contributing partners the consortium consists of 34 organisations from 23 countries. Contributing partners are: Basque Environmental Performance Agency - Ministry of Environment and Land Planning - Government of the Basque Country IHOBE (Spain (Basque Country)); Austrian Federal Ministry of Science and Research BMWF (Austria); Belgian Federal Science Policy Office BELSPO (Belgium); Italian Ministry for the Environment and Land and Sea IMELS (Italy); Federal Office for the Environment FOEN (Switzerland): Latvian Academy of Sciences LAS (Latvia); Ministry of Environment - National Meteorological Administration -Climatic Research Group METEO-Ro (Romania); Federal Ministry of Education and Research BMBF (Germany); Environment Agency EA (United Kingdom); National Institute of Meteorology and Hydrology of Bulgarian Academy of Sciences NIMH\_BAS (Bulgaria); Research Council of Norway RCN (Norway); Coordination Unit for Research in Climate Change Adaptation, Aarhus University AU-KFT (Denmark); Galician Innovation Agency - Galician Ministry of Economy and Industry - Galician Government XUNTA (Spain (Galicia)); The Federal Environment Agency (Umweltbundesamt) UBA-D (Germany)

# Mapping and scoping activities

The CIRCLE-2 ERA-NET works on the following mapping and scoping activities:

- Task 3.3 'CIRCLE-2 strategic analysis of climate adaptation research-policy landscape in Europe'. To map all potential research performers organizations in Europe on Climate Change Adaptation.
- Climate Adaptation Infobase (http:// infobase.circle-era.eu/). This InfoBase includes research and applied projects funded from 2005 onwards, at national and local levels, as well as transnational projects funded by CIRCLE-2.
- Workshops (http://www.circle-era.eu/np4/ workshops). All the workshops organized within CIRCLE-2, it presentations and outputs.
- Climate Adaptation Research Agenda (CARA) (http://www.circle-era.eu/np4/ CARA). Provide European, national and sub-national actors involved in climate adaptation research with a common independent strategic view from CIRCLE-2 partners and contributing partners.

# Joint calls

### First call 2007

This first CIRCLE pilot joint call within the ERA-Net CIRCLE was launched, in order to establish transnational collaborative research projects on Climate Change Impact in a specific area, the MEDITERRANEAN (CIRCLE-2 MEDiterranean) region focusing on "Integrated Coastal Zones and Water Management".

A prerequisite of the MEDiterranean Call was that research proposals had to include researchers from the funding countries, but also had to include one associate research institution belonging to other countries sharing Mediterranean coastline. The five CIRCLE-2 MEDiterranean partners agreed to pay not only for their own national researchers, but also for researchers of non EU countries. Funding pledges initially summed up to EUR 2.15 million. Sixteen proposals were received, representing a request of EUR 3.46 million. Institutions applied from many countries including Tunisia, Egypt, Greece, Albania, Croatia, Turkey and Morocco. Finally eight projects were selected for a total budget of EUR 1.65 million. These projects involve research bodies from France, Italy, Portugal, Spain, Israel, Morocco, Tunisia, Croatia, and Albania. All funded projects are monitored and assessed over the course of their duration.

Three meetings were scheduled:

- The kick-off meeting took place in Rome in November 2008, to introduce all projects and researchers, and build a community dedicated to the call topic
- The mid-term meeting was hosted in Portugal in November 2009, to review the mid-term report submitted by the research teams
- A final meeting to be held in 21-23 March of 2011, where research teams will present the results of their research

Projects funded:

- 1. ACIDBIV The integrated impacts of marine acidification, temperature and precipitation changes on bivalve coastal biodiversity and fisheries: how to adapt? Coordinator: CCMAR (Portugal). Participating countries: Spain, Italy, Portugal and Tunisia
- AQUIMED Participatory design of adaptive groundwater management strategies and instruments in Mediterranean coastal water scarce areas as a response to climate change. Coordinator: CIRAD (France). Participating countries: Portugal, France and Morocco
- CANTICO Climate and local ANthropogenic drivers and impacts for the Tunislan COastal area. Coordinator: CMCC (Italy). Participating countries: France, Italy, Tunisia and Israel
- CLIMWAT Assessing and managing the impact of climate change on coastal groundwater resources and dependent ecosystems. Coordinator: CVRM (Portugal). Participating countries: Spain, Portugal and Morocco
- 5. INTERMED The Impact of climate change on Mediterranean intertidal communities: Losses in coastal ecosystem integrity and services. Coordinator: University of Palermo (Italy). Participating countries: Croatia, Israel and Italy

- MEDCODYN Climate change impacts in transitional water systems in the Mediterranean. Coordinator: Università di Sienna (Italy). Participating countries:France, Morocco and Italy
- CLIMBIOMEDNET Climate change influence on biodiversity, goods and services of Mediterranean lagoons. Coordinator: Université Montpellier (France). Participating countries: France, Italy, Spain, Albania and Tunisia
- WaterKnow Integrated Water Management in Coastal Drainage Basins: challenges and adaptation strategies within the framework of climate change. Coordinator: CIRSA (Italy). Participating countries: Italy, France, Portugal and Morocco

### Second call 2007

The aim of this CIRCLE-2 NORDic call was to enhance Nordic research cooperation in the areas specified below.

The main objective of this call was to increase knowledge of options, premises and barriers for climate change adaptation, including the relationship between adaptation and mitigation. The theme for project proposals was research on consequences of climate change for policy making in important sectors in the Nordic countries, e.g.,

- What are the synergies and trade-offs between adaptation and mitigation to climate change in policy making?
- How do the Nordic countries compare and differ with respect to adaptation needs and implementation ability?

The funding organisations of the call were: the Academy of Finland, the Research Council of Norway and the Swedish Environmental Protection Agency.

The call had a total maximum budget of EUR 400 000, with a maximum of EUR 100 000 - 200 000 from each funding organisation.

Projects funded:

- 1. CARAVAN Climate change: A Regional Assessment of Vulnerability and Adaptive capacity for the Nordic countries. Coordinator: Finnish Environment Institute (Finland). Participating countries: Sweden, Finland and Norway
- CAREPOL Climate Change adaptation in Norway, Sweden and Finland - Do research, policy and practice meet? Coordinator: Finnish Meteorological Institute (Finland). Participating countries: Sweden, Finland and Norway
- COMMUNITY RESPONSE Climate change, community response and multilevel governance. Coordinator: Stockholm Environment institute (Sweden). Participating countries: Sweden, Finland and Norway

### Third call 2009

The aim of the CIRCLE-2 MOUNTain call is to increase knowledge of options, premises and barriers for climate change impacts and adaptation including the relationship between adaptation and mitigation in mountainous areas. Special emphasis should be laid on the involvement of decision makers/developers and relevant stakeholders.

The funding organisations of the call are: the Federal Ministry of Science and Research, Austria, the Ministry of Ecology, Energy, Sustainable Development and Sea, France, the Mariolopoulos-Kanaginis Foundation of Environmental Sciences, Greece, the Ministry of Environment and Water, Hungary, the Ministry of Science and Innovation, Spain, The Scientific and Technological Research Council of Turkey and The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning.

The theme for project proposals was climate change impacts (natural and anthropogenic factors) and response options in mountainous areas including effects on /inter alia/, water resources, infrastructure, slope stability, agriculture, tourism, public health and biodiversity. The funders have made funding pledges of up to EUR 2.12 million.

It's also possible to read some information in french: http://www.circlemontagne.fr/

Projects funded:

- ARNICA Assessment of Risks on transportation Networks resulting from slope Instability and Climate change in the Alps. Coordinator: Centre National de Recherche Scientifique (France). Participating countries: Austria, France, Switzerland and Italy
- 2. EURAS-CLIMPACT Impact of climate change and related glacier hazards and mitigation strategies in the European Alps, Swedish Lapland and the Tien Shan Mountains, Central Asia. Coordinator: Department of Environmental Geosciences, University of Vienna (Austria). Participating countries: Austria, France, Greece, Hungary, Spain, Sweden and Turkey
- 3. ChangingRISKS Changing pattern of landslide risks as response to global changes in mountain areas. Coordinator: Centre National de la Recherche Scientifique / Institut de Physique du Globe de Strasbourg (France). Participating countries: Austria, France, Greece, Hungary, Spain, Sweden and Turkey
- CAMELEON CArbon dynamics in Mountain Ecosystems: analyzing Landscapescale Effects Of aNthropogenic changes (climate and land-use) - Laboratoire des Sciences du Climat et de l'Environnement - Commissariat à l'Energie Atomique (France) - Austria, France, Greece, Hungary, Spain, Sweden and Turkey

### Fourth call 2013

Under the topic "Adaptation to Climate Change from a natural and social science perspective: Water in coastal Mediterranean areas", CIRCLE-2 have launched a call with the aim of encourage scientific cooperation between social and natural scientists in order to find novel solutions for transnational water-related climate change adaptation challenges in support to public policies.

The funding countries of this call are France, Greece, and Portugal and it respective funding institutions were the Ministry for Ecology, Sustainable Development and Energy (MEDDE), Mariolopoulos-Kanaginis Foundation for the Environmental Sciences (MKF) and Foundation for Science and Technology (FCT), with a total budget of EUR 6.1 million.

Projects funded:

- 1. ADAPT-MED Is current decision making 'adapted to internalize adaptation' into policy making? Coordinator: ACTeon (France). Participating countries: Portugal, France and Greece.
- MEMOTRADE Social memory of waterrelated trades and practices: local knowledge and climate change adaptation. Coordinator: ISCTE-IUL (Portugal). Participating countries: Portugal, France and Greece





# COFASP

Strengthening cooperation in European research on sustainable exploitation of marine resources in the seafood chains - ERANET



# **Objective**

Research and innovation are central elements in the Europe 2020 Strategy and it is recognised that bioeconomy is an important element of the Strategy. DG RTD has issued a European Strategy Innovating for sustainable growth: a bioeconomy for Europe paving the way to a more innovative, resource efficient and competitive society that reconciles food security with the sustainable use of renewable resources, while ensuring environmental protection.

COFASP will directly address actions envisaged within fisheries, aquaculture and seafood:

- to enhance scientific knowledge and innovation reinforcing advice on fisheries management supporting decision making and strengthening an ecosystem-based fisheries management as central principle of the revised Common Fisheries Policy;
- to implement the EU Strategy for the Sustainable Development of Aquaculture through development of strategic guidelines and implementation of national strategic aquaculture plans; and
- to promote consumption of safe, nutritious and healthy European seafood and ensure traceability of seafood from net and cage to plate.

Based on the earlier ERA-NET MariFish and the running ERA-NET SEAS-ERA, focusing on capture fisheries, aquaculture and seafood processing including distribution to consumers

### PROJECT DETAILS

Peri	bd	From 2013-02-01 To 2017-01-31			
Project reference		321553			
	jramme nym	FP7-KBBE			
Торі	c identifier	KBBE.2012.1.2-13			
Title		Strengthening cooperation in European research on sustainable exploitation of marine resources in the seafood chains – ERA-NET			
Cont	tract type	Coordination (or Networking) Action			
Tota EU c	l cost ontribution	€ 2 723 939 € 1 999 912			
	ber of icipants	26			
Cool	rdinator	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI, Denmark			
Cont	tact person	Niels Gøtke (coordinator) E nigoe@f.idk Steffen Syberg Hansen (technical/admin. issues) E ssh@f.idk; Dennis Lisbjerg (scientific issues) E management@cofasp.eu			
Web	site	www.cofasp.eu			
Part	icinants				
Participants BE Ministry of Agriculture of the Flemish Community - Institute for Agricultural					
DL	and Fisheries Research EV-ILVO				
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV				
DE	Federal Agency of Agriculture and Food BLE				
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
DK		International Council for the Exploration of the Sea ICES			
DK	DAFA	Ministry of Food, Agriculture and Fisheries - Danish Food Industry Agency DAFA			
DK	DTU AQUA	Technical University of Denmark - National Institute of Aquatic Resources DTU AQUA			
ES ES	Marine and Food Technological Centre AZTI-Tecnalia Spanish Institute of Oceanography IEO				
FI	Finnish Game and Fisheries Research Institute FGFRI				
FR	French Research Institute for Exploitation of the Sea IFREMER				
FR	National Agency for Research ANR				
GR	General Secretariat for Research and Technology GSRT				
GR	Hellenic Centre for Marine Research HCMR				
IS	Icelandic Centre for Research RANNIS				
IS	Icelandic Food and Biotech R&D Company MATIS				
IE	Marine Institute MI				
IT	Institute for Environmental Protection and Research ISPRA				
IT NI	National Research Council CNR				
ND	Wageningen UR (University & Research centre) WUR				
NO	Research Council of Norway RCN Royal Ministry of Fisheries And Coastal Affairs FHF				
PT	Royal Ministry of Fisheries and Coastal Affairs FHF Foundation for Science and Technology FCT				
RO	Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI				
1112	Cocrotony of Ctoty	-			

UK Secretary of State for Environment, Food and Rural Affairs DEFRA

UK Scottish Ministers Acting Through Marine Scotland SCOTTISH MINISTERS

the objectives of COFASP are:

- To lay the basis for exploitation according to the precautionary principles and to enhance innovation in and competitiveness of the primary sectors fisheries and aquaculture as well as subsequent seafood processing and distribution to the consumer
- To define the science, information and data necessary to underpin the revision of the CFP and to ensure its successful implementation by designing complementary national research programs and outlining monitoring and information/data sharing systems needed.

# Consortium

COFASP has 26 partners from 15 European countries.

# Mapping and scoping activities

A Common Strategy will be developed catering for the future opportunities and necessities of cooperation in research in the fields of fisheries, aquaculture and sea food processing. The output from the final WP1 workshop together with the outcomes from WP2, WP3 and WP4, will be used to finalize the paper on common strategy (to be concluded by month 40 = July 2016).

The Common Strategy is envisioned to be a big tool box which the COFASP consortium will use to streamline input when needed.

During the lifetime of the ERA-NET the Common Strategy will be used in several ways to provide strategic input from the COFASP consortium.

One of the most important tools to be developed for the Common Strategy is the Strategic Research Agenda, which is expected to have a big impact on national research programmes as well as on the future research programmes of the EU-Commission.

# Joint calls

Three calls are expected to be launched end of 2013, month 18 (September 2014) and month 30 (September 2015).





# **CORE Organic II**

Coordination of European Transnational Research in Organic Food and Farming Systems



# Objective

Organic agriculture and food markets have grown considerably and organic agriculture addresses important challenges of European agriculture, such as sustainable production of high quality food, reducing dependency on high energy inputs, improving environmental and nature conservation, climate change adaptation, animal welfare and rural livelihoods. Organic farming and food systems still have a big potential for innovation and improved solutions. Research activities will be important for this. Coordinated transnational research has the potential to create a less fragmented research area in this fast growing sector.

CORE Organic II builds on the outcome of the first CORE Organic to aim at an effective and sustainable transnational research programme. It will identify common research priorities for the organic sector where a transnational approach will give added value, launch at least two transnational calls, initiate research projects, organize project monitoring and dissemination of results, and consider funding models.

CORE Organic II will also develop all components to continue the transnational research activities beyond the ERA-NET. The results of CORE Organic II will be a strong and sustainable network of funding bodies, all components for the effective continuation of collaboration, a series of on-going research projects and a plan to support dissemination. The expected benefits for Europe will be to reinforce its leading status

#### PROJECT DETAILS

FROJ	ECT DETAILS			
Perio	od	From 2010-03-01 To 2013-08-31		
Follow-on ERA-NET		CORE Organic Plus		
Project reference		249667		
Prog acro	ramme nym	FP7-KBBE		
Торіо	: identifier	KBBE.2009.1.4-09		
Title		oordination of European Transnational esearch in Organic Food and Farming ystems		
Cont	ract type	Coordination (or Networking) Action		
Total cost EU contribution		€ 1 607 082 € 999 976		
	ber of cipants	26		
Coor	dinator	International Centre for Research in Organic Food Systems ICROFS-AU, Denmark		
Contact person Niels Halberg (coordination) Ulla Sonne Bertelsen (project managem T +45 87 15 77 16 E Ulla Bertelsen@icrofs.org		Ulla Sonne Bertelsen (project management) T +45 87 15 77 16		
Web	site	www.coreorganic2.org		
Parti	cipants			
AT	Ministry of Life - Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW			
BE	Institute for Agricultural and Fisheries Research ILVO			
BE	Department of Agriculture and Fisheries, Flemish Authorities DLV			
CH	Research Institute of Organic Agriculture FiBL			
CH	Federal Office for Agriculture FOAG			
CZ		ure of the Czech Republic MZE		
DE		Food, Agriculture and Consumer Protection BMELV		
DE		Agriculture and Food BLE		
DK DK	Ministry of Food, Agriculture and Fisheries - Danish Food Industry Agency DAFA International Centre for Research in Organic Food Systems ICROFS			
FF		, , , , , , , , , , , , , , , , , , ,		
ES	Ministry of Agriculture EVPM National Institute for Agriculture, Technology and Food Research INIA			
FI	Ministry of Agriculture and Forestry MMM			
FR	French National Institute for Agricultural Research INRA			
FR	Ministry of Agriculture, Food and Forestry MAAF			
IE	Department of Agriculture, Fisheries and Food DAFF			
IT	Ministry of Agricultural, Food and Forestry Policies MIPAAF			
LT	Ministry of Agriculture of the Republic of Lithuania – Rural Development Department ZUM			
LU	National Research Fund FNR			
LV	Latvian State Institute of Agrarian Economics LSIAE			
NL	Ministry of Econom			
NO	Research Council o	,		
SE	Planning FORMAS	Council for Environment, Agricultural Sciences and Spatial		
SI		ure, Forestry and Food MAFF		
TR	Agricultural Resear			
UK	Liebartment for En	vironment. Food And Rural Affairs DEERA		

UK Department for Environment, Food And Rural Affairs DEFRA

and excellence in organic research, enhance the European research area on organic agriculture, increase the efficiency in use of organic research funds and improve the impact of research on the organic sector.

# Consortium

The CORE Organic II consortium consists of 26 partners from 21 different countries.

# Mapping and scoping activities

The following mapping activities are included in the project:

- existing research funding structures for organic research in partner countries.
- current national legal basis for research funding
- channels for dissemination of transnational research results

The outcome from point 1 consist of a) an analysis of the national research priorities in organic farming and food systems, b) a list of links to all organic research activities in the 21 partner countries, c) a list of the national research gaps ranked according to the national priorities and d) a compact portrait of the status-quo of organic farming and food research in each partner country.

Before a real common pot call can be launched, it is necessary to identify legal, political or management barriers to the real common pot funding models. The mapping explored priority on funding models, legal structure, responsibility for financial decisions etc.

The impact of the ERA-NET is hampered if the research results are not reaching the end-users. The mapping in point 3 is with the aim to make a net-work of dissemination hubs for exchange and further utilisation of both transnational and national research results.

# Joint calls

### First call 2010

The first call was launched in September 2010 and had a budget of about EUR 9.2 million divided into three thematic research areas. Projects are running from autumn 2011 to autumn 2014.

Thematic research area: Cropping: Designing robust and productive cropping systems at field, farm and landscape level.

Projects funded:

- BICOPOLL Targeted bio-control and pollination enhancement. Coordinator: University of Helsinki, Department of Agricultural Sciences (Finland). Participating countries: Finland, Germany, Estonia, Italy, Slovenia, Turkey, Belgium.
- BIO-INCROP Innovative cropping techniques to increase soil health in organic fruit tree crops. Coordinator: Agricultural Research Council (Italy). Participating countries: Italy, Spain, Germany, Austria, Switzerland, Turkey.
- InterVeg Enhancing multifunctional benefits of cover crops - vegetables intercropping. Coordinator: Agricultural Research Council - Research centre for the soil plant system (CRA-RPS) (Italy). Participating countries: Italy, Germany, Denmark, Slovenia.
- Softpest multitrap Semio-chemical traps for management of weevil and plant bug in organic strawberry and raspberry. Coordinator: Bioforsk - Organic Food and Farming Division (Norway). Participating countries: United Kingdom, Sweden, Norway, Denmark, Switzerland, Latvia.
- 5. TILMAN-ORG Reduced tillage and green manures for sustainable organic cropping systems. Coordinator: FiBL Research Institute of Organic Agriculture (Switzerland). Participating countries: France, Germany, The Netherlands, Belgium, Luxembourg, United Kingdom, Estonia, Italy, Spain, Austria.
- 6. Vineman.Org Enhancing disease

management, yield efficiency, and biodiversity in organic European vineyards. Coordinator: Università Cattolica del Sacro Cuore (Italy). Participating countries: Italy, Austria, Germany, Slovenia, Spain.

Thematic research area: Monogastric: Robust and competitive production systems for pigs, poultry and fish.

Projects funded:

- HealthyHens Promoting good health and welfare in European organic laying hens. Coordinator: University of Kassel (Germany). Participating countries: Germany, Denmark, Italy, United Kingdom, The Netherlands, Austria, Sweden, Belgium.
- 8. ICOPP Improved contribution of local feed to support 100% organic feed supply to pigs and poultry. Coordinator: University of Aarhus (Denmark). Participating countries: Denmark, The Netherlands, United Kingdom, Sweden, Austria, Germany, Finland, Switzerland, France, Lithuania
- ProPIG Strategies to reduce environmental impact by improving health and welfare of organic pigs. Coordinator: University of Natural Resources and Applied Life Sciences (Austria). Participating countries: Austria, Switzerland, United Kingdom, Italy, France, Denmark, Germany, Czech Republic.

Thematic research area: Quality: Ensuring quality and safety of organic food along the whole chain .

Projects funded:

- SafeOrganic Restrictive use of antibiotics in organic animal farming. Coordinator: Technical University of Denmark, National Food Institute, Denmark. Participating countries: Italy, France, Sweden, Denmark, Czech Republic.
- AuthenticFood Fast methods for authentication of organic plant based foods. Coordinator: University of Copenhagen, Faculty of Life Sciences, Denmark. Participating countries: Luxembourg, Italy, Denmark, Czech Republic, Germany, Finland, France, The Netherlands, United

Kingdom, Lithuania.

### Second call 2011

The second call was launched in October 2011 and had a budget of about EUR 4.9 million divided into two thematic research areas. Projects are running from Spring 2013 to Spring 2016.

Thematic research area: Plant-breeding -Improvement of production efficiency and agricultural biodiversity within cropping systems by using eco-compatible breeding techniques

Project funded:

 COBRA - Coordinating Organic plant BReeding Activities for Diversity, coordinated by The Organic Research Centre (United Kingdom). Participating countries: United Kingdom, Austria, Belgium, Denmark, Estonia, Finland, France, (Hungary), Italy, Latvia, Luxembourg, Norway, Slovenia, Switzerland, Turkey.

Thematic research area: Supporting the development of organic markets

Project funded:

 HealthyGrowth - Healthy growth: From niche to volume with integrity and trust coordinated by Institute of Agroecology, Aarhus University (Denmark). Participating countries: Denmark, Austria, Finland, France, Germany, Lithuania, Norway, Slovenia, Sweden, Turkey.

### Third call 2012

The third call was launched in June 2012 as a real common pot call with six countries involved and a budget of EUR 860 000. The call was a one-step call. The selected project will be running from June 2013 to May 2016.

Thematic research area: Sustainable and efficient management of phosphorus and use of secondary fertilizers within organic agriculture.
Project funded:

1. IMPROVE-P: IMproved Phosphorus Resource efficiency in Organic agriculture Via recycling and Enhanced biological mobilization coordinated by Institute of Crop Science, Universität Hohenheim (Germany). Participating countries: Germany, Austria, Switzerland, Denmark, Norway, United Kingdom. Publication from the projects can be found at www.orgprints.org by browsing European Union, CORE Organic and the short name of the project. COII had a research seminar in November 2011 to present the 11 projects of the first call and the results of the eight CORE Organic pilot projects. In May 2013 the second research seminar will take place to present the three projects of the second and third call, and the results at midterm of the first call projects.





# **EMIDA**

Coordination of European Research on Emerging and Major Infectious Diseases of Livestock



#### PROJECT DETAILS

Peri	od	From 2008-04-01 To 2011-12-31			
Foll	ow-on ERA-NET	ANIHWA			
Proi	ect reference	nce 219235			
Prog	gramme onym	FP7-KBBE			
	, c identifier	KBBE-2007-1-3-02			
Title		Coordination of European research in the area			
maa		of animal health, including emerging threats, infectious diseases and surveillance			
Con	tract type	Coordination and Support Action (Coordinating)			
Tota EU d	l cost contribution	€ 1 092 514 € 997 218			
Nun part	nber of icipants	29			
Coo	rdinator	Department for Environment, Food and Rural Affairs DEFRA, United Kingdom			
Con	tact person	Alex Morrow E alex.morrow@defra.gsi.gov.uk			
Web	site	www.emida-era.net			
Part	icipants				
BE	Federal Agency for	the Safety of the Food Chain FASFC			
BE	Veterinary and Agr	ochemical Research Centre CODA-CERVA			
BE	Federal Public Service Health, Food Chain Safety and Environment FPS-CR				
CH	Swiss Federal Veterinary Office SFVO				
CY	Ministry of Agricul Services) VS				
CZ	Ministry of Agriculture of the Czech Republic MZE				
DE		Federal Ministry of Food, Agriculture and Consumer Protection BMELV			
DE	5,	ederal Agency of Agriculture and Food BLE			
DE	Jülich Research Centre JUELICH				
DE	,	Federal Ministry of Education and Research BMBF			
DE DK	Federal Ministry of Health BMG Ministry of Food, Agriculture and Fisheries, Danish Food Industry Agency DFIA				
ES Fl	National Institute	DFIA National Institute for Agriculture, Technology and Food Research INIA Ministry of Agriculture and Forestry MMM			
FR		stitute for Agricultural Research INRA			
FR	National Agency fo	-			
IE	5,				
IL	Ministry of Agricul	Department of Agriculture, Fisheries and Food DAFF Ministry of Agriculture and Rural Development, Israeli Veterinary Services and Animal Health IVSAH			
IT	Ministry of Agricul	tural, Food and Forestry Policies MIPAAF			
IT	Ministry of Health	Ministry of Health HM-DVPHNFS			
LT	Ministry of Agricul	Ministry of Agriculture of the Republic of Lithuania MAL			
NL	Ministry of Econon	Ministry of Economic Affairs EZ			
NL		rlands Food and Consumer Product Safety Authority NVWA			
NO	Research Council o				
SE	Planning FORMAS	Council for Environment, Agricultural Sciences and Spatial			
TR	, 5	ture and Rural Affairs TAGEM			
UK	Scottish Governme				
UK	5,	I Biological Sciences Research Council BBSRC			
UK	Department for En	ironment, Food and Rural Affairs DEFRA			

### **Objective**

The disease threats to the livestock industry have increased steadily over the past decades as a result of globalisation, evolving pathogens and climate change. Responding to animal disease threats relies heavily on science; research makes a significant contribution to the development of disease control policy and the translation of policy, and other drivers for improving animal health, into practical effect. Although the legislation that underpins policy for the control of statutory diseases is determined at the EU level, the research that supports policy development and implementation is primarily carried out at the national level and is largely uncoordinated as is the research on other major infectious diseases currently affecting livestock production

The aim of the Animal Health FRA-NFT was to build on and accelerate the work of the SCAR CWG in developing a durable focused network of national research founders in Member and Associated States of the EU for the purpose of sharing information, coordinating activities and working towards a common research agenda and mutual research funding activities. The scope of the project included emerging and major infectious diseases of production animals, including fish and bees and including those conditions which pose a threat to human health but excluding food safety issues relating to livestock products and diseases of wildlife except where they act as reservoirs of infection for humans or production animals.

The objectives of the ERA-NET were delivered through the following four work packages:

WP1. Project coordination, management, communication and dissemination; WP2. Mapping and analysis of existing research and current needs and information on the commissioning and management of joint programmes; WP3. Develop, test, evaluate and refine instruments (Pilots) and WP4. Developing a strategic transnational animal health research agenda.

## Consortium

The EMIDA ERA-NET consist of 29 partner organisations from 18 countries and four observer organisations from three different countries. Observers are: Department of Agriculture and Rural Development DARD-AFBI (United Kingdom), Ministry of Agriculture, Forestry and Water Management, Veterinary Directorate MPS (Croatia), Welcome Trust (United Kingdom).

### Mapping and scoping activities

A framework was established under the CWG for the capture of research project information and a database developed which is serving the needs for the collection of information for both EMIDA and the CWG. Details of over 2.100 projects have been uploaded to the project database by the project partners. To complete the mapping of the research landscape, three other databases of supporting information, in the form of publications over the past four years, international animal health related patents and EC funded animal health related projects, were also developed using data from international scientific databases. These databases, the methodology behind them and the associated reports on research outputs can be accessed on the project website.

A questionnaire on current management practices relating to the research programmes of the project partners and their perceived needs and priority topics of interest for inclusion in a common call was conducted and the resulting report is also available on the project website.

### Joint calls

#### First call 2010

The following twelve projects were funded:

- 1. OrbiNet Molecular and reverse genetics studies of orbivirus transmission, host responses, epidemiology and diagnostic systems. Coordinator: Pirbright Laboratory, Institute for Animal Health (United Kingdom). Participating countries: Denmark, Germany, United Kingdom, Switzerland, Israel, The Netherlands, France, Belgium
- 2. Early detection data Improving early detection of emerging vector borne diseases by using existing production and diagnostic data. Coordinator: Animal Health Service Deventer (The Netherlands). Participating countries: Belgium, France
- LA-MRSA Methicillin-resistant Staphylococcus aureus lineages in primary productions: multi-host pathogen, spillover and spill-back between animals and humans? Coordinator: Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana (Italy). Participating countries: Denmark, Germany, Belgium, Spain, Italy
- 4. TB Alpine Wildlife Tuberculosis in Alpine wildlife - Monitoring, diagnostics and potential control strategies of tuberculosis in wild animals in the Alpine provinces of Austria, Germany, Italy and Switzerland. Coordinator: Austrian Agency for Health and Food Safety (Austria). Participating countries: Germany, Austria, Italy, Switzerland
- 5. ParaTBVaccine Development of a novel subunit vaccine against Mycobacterium avium subspecies paratuberculosis that does not interfere with bovine TB diagnostics. Coordinator: National Veterinary Institute (Norway). Participating countries: United Kingdom, Denmark.
- 6. CombatColibacillosis Combatting colibacillosis - a genomics based approach. Coordinator: University of Würzburg, Institute for Molecular Infection Biology (Germany). Participating countries: France, Italy, Israel

- 7. BRSV-DIVA-Development and comparative evaluation of three new generation BRSV DIVA vaccines and a corresponding DIVA test. Coordinator: Swedish University of Agricultural Sciences/National Veterinary Institute (Sweden). Participating countries: United Kingdom, France, Sweden
- iPUD Integrated systems approach for preventing uterine disease in dairy cattle. Coordinator: Swansea University, Institute of Life Science, School of Medicine (United Kingdom). Participating countries: France, United Kingdom, Germany
- 9. MADISPREAD Marek's Disease Virus Spread: In and Out of Chicken. Coordinator: INRA Institut National de la Recherche Agronomique (France). Participating countries: Germany, France, United Kingdom
- 10. Improvements in the diagnosis and control of bovine mycoplasmosis. Coordinator: Veterinary Laboratories Agency (United Kingdom). Participating countries: Germany, Israel, Italy
- HealthyGut Multi-focal strategies to improve gut health and reduce enteritis in poultry and pigs. Coordinator: University of Nottingham (United Kingdom). Participating countries: Czech Republic, CN, Italy, Germany, United Kingdom, France
- 12. PathoFish Control Flavobacteriaceae infections in European fish farms. Coordinator: INRA (France). Participating countries: France, Finland, Norway, Switzerland, Denmark, Italy

#### Second call 2011

The following fourteen projects were funded:

- 1. RiftVectors Vector competence of European mosquitoes to Rift Valley fever virus. Coordinator: University of Glasgow (United Kingdom). Participating countries: United Kingdom, Italy, France
- VICE Vector-borne Infections: risk based and cost efficient surveillance systems. Coordinator: DTU – National Veterinary Institute (Denmark). Participating countries: The Netherlands, Norway, Germany,

Belgium, Switzerland, France, Sweden

- EMIRO The significance of rodent communities for the distribution of Echinococcus multilocularis: ecological and experimental investigations. Coordinator: Swedish University of Agricultural Sciences (Sweden). Participating countries: Switzerland, Lithuania, Finland, Sweden, Denmark
- APHAEA Harmonised approaches in monitoring wildlife population health and ecology and abundance. Coordinator: IREC Universidad de Castilla - La Mancha (Spain). Participating countries: Italy, Germany, France, Sweden, Switzerland, Denmark
- 5. CamChain Campylobacter in chicken production: survival, virulence and control. Coordinator: University of Liverpool (United Kingdom). Participating countries: Lithuania, United Kingdom, Finland, Austria, France, Denmark
- CARES Coping with anthelminitic resistance in ruminants. Coordinator: University of Copenhagen (Denmark). Participating countries: France, Denmark, Canada, Greece, Ireland, Sweden, Guadeloupe
- MINAPIG Evaluation of alternative strategies for raising pigs with minimal antimicrobial usage: Opportunities and constraints. Coordinator: SAFOSO (Switzerland). Participating countries: Sweden, Belgium, Germany, France, Denmark, Switzerland
- 8. GOAT-TSE-FREE Towards breeding of goats for genetically determined TSEs resistance. Coordinator: Central Veterinary Institute of Wageningen UR (The Netherlands). Participating countries: Italy, France, Spain, United Kingdom, Greece, Germany
- 9. DIFAGH Development of immune function and avian gut health. Coordinator: University of Oxford (United Kingdom). Participating countries: Germany, France, Israel, Denmark
- 10. MYCOBACTDIAGNOSIS Development of novel diagnostic strategies for the ante-mortem immunodiagnosis of bovine tuberculosis and Johne's Disease.

Coordinator: Animal Health and Veterinary Laboratories Agency (United Kingdom). Participating countries: France, The Netherlands, Ireland, Germany, United Kingdom, Italy

- 11. Brucmel Brucella melitensis: biotyping and differential diagnostic. Coordinator: Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale' (ICT) (Italy). Participating countries: Greece, Israel, Italy
- 12. Farmers WTP Farmers' willingness to prevent and control disease. Coordinator: Wageningen University (The Netherlands).

Participating countries: United Kingdom, France

- MOLTRAQ Molecular tracing of viral pathogens in aquaculture. Coordinator: Norwegian Veterinary Institute (Norway). Participating countries: Denmark, France, Germany, Norway
- Epi-SEQ Molecular epidemiology of epizootic diseases using next generation sequencing technology. Coordinator: Veterinary and Agrochemical Research Center (CODA-CERVA) (Belgium). Participating countries: Germany, Sweden, United Kingdom, Italy





# **ERA-ARD II**

### The Agricultural Research for Development Dimension of the European Research Area



#### PROJECT DETAILS

	Perio	bd	From To	2010-10-01 2013-09-30			
Project reference		24966	249664				
Programme acronym			FP7-KI	FP7-KBBE			
	Торі	c identifier	KBBE.2	2009.1.4-08			
	Title		Develo Develo	ERA-NET-Agricultural Research for Development - The Agricultural Research for Development Dimension of the European Research Area			
	Cont	ract type	Coordi	nation (or Networking) Action			
	Tota EU c	l cost ontribution		55 681 71 710			
	Num parti	ber of cipants	17				
	Coor	dinator	Ministr Nether	y of Economic Affairs EZ, The 'lands			
	Cont	act person	T +31-	Patricia Wagenmakers T +31-707573167/M +31-652717773 E p.s.wagenmakers@minez.nl			
	Web	site	WWW.6	www.era-ard.org			
	Parti	cipants					
· ·				ulture, Forestry, Environment and LFUW			
	BE			oreign Affairs, Foreign Trade and on Belgium DGD			
	СН	CH Federal Department of Foreign Affairs / Swiss Agency fo Development and Cooperation – Department for Global Cooperation, Global Programme Food Security DEZA					
	DE	Federal Agency	of Agric	ulture and Food BLE			
	DK						
	ES	S National Institute for Agriculture, Technology and Food Research INIA					
	FI	, ,		ulture and Forestry MMM			
	FR			development IRD			
FR Agricultural Research for Development CIRAD							
		HU Ministry of Agriculture and Rural Development – Department for Natural Resources MARD					
	IT						
		LT Ministry of Agriculture of the Republic of Lithuania – Rural Development Department ZUM					
NL Ministry of Economic							
PT National Institute of Biological Resources INRB							
	TR	Ministry of Agric Agricultural Res	culture a earch M.	nd Rural Affairs, General Directorate of ARA/GDAR			
	TR	TUBITAK	-	jical Research Council of Turkey			
		Dopartment for	Internat	ional Dovolonment Contral Percarch			

UK Department for International Development – Central Research Department DFID

### **Objective**

ERA-ARD II has two strategic objectives: Improving the European contribution to International Agricultural Research (IAR) by promoting joint activities and transnational programs in the field of Agricultural Research for Development (ARD) and Increasing the impact of European contributions in achieving the Millennium Development Goals (MDG's) and to sustainable growth in the poorest countries in the world.

Achievements of ERA-ARD I include:

- providing a shared vision and a strategic agenda on ARD in Europe;
- providing an analysis of collaboration models to the implementation of joint and transnational activities;
- increasing the involvement of Southern partners through the establishment of a Southern Advisory Group;
- implementing a transnational call focussing on Bioenergy.

The main areas for improvement were:

- Enlargement of the consortium by integrating new partner countries (Portugal, Turkey, Finland, etc.);
- Expanding joint and transnational activities initiated during ERA-ARD I;
- Realising joint activities in thematic fields: Capacity development, also related to climate change;

- Involvement of the end users of the European ARD programmes in the design and implementation of joint and transnational activities;
- Expend the Southern Advisory Group to include stakeholders from all continents.

The impact of this ERA-NET lies in supporting and enhancing the European Research Area for Development. A greater contribution and visibility of Europe towards achieving the Millennium Development Goals through an increase in effectiveness and efficiency of its research for development programs is being established along with the development of a more coherent European ARD and a facilitated access of developing countries to European ARD expertise. The joint call will result in research which will contribute to meeting the EU's commitment towards the United Nations Millennium Development Goals.

# Consortium

The ERA-ARD consortium consists of 17 organisations from 15 different countries.

### Mapping and scoping activities

Building onto the ERA-ARD I project, the ERA-ARD II network has implemented two major mapping and scoping activities:

1. Strengthened networking and consultation. The ERA-ARD network in itself links funders with a view to greater contribution of the European efforts towards achieving the MDGs. The network has been successful in generating mutual understanding and a focus on priority themes, fed by various consultation processes both in Europe and in Africa. This included developing the ARD-Alliance concept, the aim of which is to build on the diversity and experience within Europe and establish a mechanism for forming regional ARD-Alliances around joint activities and a common understanding of priority thematic areas. Its value is mutually beneficial for the demand and the supply sides: better demand articulation generating more appropriate projects with hopefully more impact. Involvement of representatives from the South has been enhanced by the formation of the Southern and Emerging economies Advisory Group (SEAG), to provide input from partners from Southern and Emerging economies in the decision-making process of the ERA-ARD.

2. Improved transparency in the European research landscape and practical tools for improving contribution to MDG's. Improving transparency in the diversity of the European offer comes through the ERA-ARD proposal for a European ARD portal - a portal of portals - that aims at the facilitation of access to European ARD information, expertise and collaboration partners as well as the facilitation of interaction and networking (D1.3 Suggestions for concept and development of the European ARD portal - a Portal of Portals). By building on the current ERA-ARD portal, this should be initiated in the near future. In addition, an evaluation mechanism called the "MDG toolbox" has been developed and is able to underpin the assessment of relative value of various MDG aspects and impact in practice.

# Joint calls

#### First call 2012

The theme of this call was "Improving rural livelihoods in Sub-Saharan Africa: Sustainable and climate-smart intensification of agricultural production". The funding partners (Austria, Belgium, France, Germany, Netherlands and Switzerland) committed at total of EUR 1.5 million into funding six proposals, of the twenty two received. Projects were started at the end of 2012 and early 2013.

Projects funded:

 CAMES - Impacts of Conservation Agriculture on Macrofauna diversity and related Ecosystem Services for improved farmers' cropping systems and livelihoods in Highlands of Madagascar. Coordinator: IRD (France). Participating countries: France, Madagascar

- WASSA Woody Amendments for Soudano-Sahelian Agriculture. Coordinator: IRD (France). Participating countries: France, The Netherlands, Burkina Faso, Senegal, Niger
- SEWS Sustainable Exploitation of wild silks in Sub-Saharan Africa. Coordinator: University of Ghent (Belgium). Participating countries: Belgium, United Kingdom, The Netherlands, Kenya
- 4. SSOPI Providing sustainable field-to-market strategies on production intensification of selected key crops. Coordinator: BOKU (Austria). Participating countries: Austria, Ethiopia, Kenya, Germany
- SIFSISDP Sustainable integrated farming systems for improvement of smallholder dairy production while optimising crop production in milk shed areas of Malawi and Zambia. Coordinator: ART (Switzerland). Participating countries: Switzerland, Belgium, Malawi
- CA-SubSurface-IR A comprehensive Analysis of Subsurface Irrigation in SSA for an Optimisation and Adaption of an Environmental friendly Irrigation Practice. Coordinator: Kassel University (Germany). Participating countries: Germany, Kenya, Algeria

#### Main Conclusions of the International Conference, held in Brussels, Belgium, 5th June 2013

The following has been prepared by the organisers as a support to participants and others. It provides a brief conclusion for the conference. Conference presentations can be found on the ERA-ARD Website at http://www.era-ard.org/internationalconference/.

The conference was conducted in a positive and constructive atmosphere and attended by over

100 people including policy makers, donors, programme managers, scientists and other stakeholders. Participants were active both during the sessions and during the breaks and they agreed that time is right for improving linkages between Agricultural Research and Agricultural Research for Development. This will contribute to greater impact on Global Challenges from the side of European Agricultural Research.

There is considerable experience and a multitude of ideas on how the impact of AR and ARD can be strengthened and it is important to build on this, ensuring AR and ARD use a more bottom-up and multi-stakeholder approach.

It is recommended that the way to link AR and ARD successfully can be elaborated through establishing a Joint EIARD – SCAR Strategic Working Group which supports and strengthens collaboration between countries, aiming at improving efficiency and visibility of use of research funds.

Alignment at global, regional and national levels should be improved and supported by consultation with a broad range of stakeholders from Europe and the South, acknowledging that building mutual trust in sustainable partnerships takes time and is part of the development process. Partnerships between Europe and the South will be increasingly balanced and of mutual benefit.

Funding instruments should be flexible and catalyse existing initiatives, rather than generating new initiatives.

Europe should support research collaboration in sustainable intensification of food production, taking into account the whole value chain (such as IntensAfrica).

In other words: We must translate rhetoric into action. The moment is now.





# **ERA-CAPS**

ERA-NET for Coordinating Action in Plant Sciences



## **Objective**

Plant sciences face important challenges at the European and global scale due to a burgeoning world population that requires sustenance. Reliable production of high-quality and safe food, feed and renewable Carbon supplies for green chemistry, without the use of excess land, energy, water, pesticides and chemicals is therefore essential.

To ensure that we have the scientific understanding to again revolutionise agricultural capabilities to deliver higher yields with lower inputs in a changing climate, we have formed a network focusing on Coordinating Action in Plant Sciences (ERA-CAPS). This network unites the scientific and economic capabilities of member states and enable the coordination of sustainable transnational plant science research programmes.

ERA-PG (2004-2009) successfully initiated a programme to structure the scientific and technological basis for plant genomics programmes in Europe. This has fostered the development of the common knowledge base necessary to build coherent transnational policy frameworks. However, if transnational cooperation and resolute mutual goals in the plant sciences are to be firmly embedded in national policies and processes, these foundations must be strengthened and expanded.

To bring this about ERA-CAPS will pursue the

#### PROJECT DETAILS

Period	ł	From To	2011-12-01 2014-11-30			
Project reference		291864				
Progra acron		FP7-KBBE				
Торіс	identifier	KBBE.2011.1.1-05				
Title		Deepened and enlarged European cooperation in the area of Molecular Plant Sciences - ERA-NET				
Contra	act type	Coordination (or Networking) Action				
Total EU co	cost ntribution	€ 2 221 910 € 1 989 658				
Numb partic	er of ipants	19				
Coord	inator	Biotechnology and Biological Sciences Research Council BBSRC, United Kingdom				
Contact person		Rowan McKibbin (Coordination) E rowan.mcKibbin@bbsrc.ac.uk Paul Wiley (Project management – primary contact) T +44 1.793 41.3379 E paul.wiley@bbsrc.ac.uk				
Websi	ite	www.e	racaps.org			
Participants						
AT	Austrian Science Fund FWF					
BE	National Fund for Scientific Research FRS-FNRS					
CA	National Research Council Canada NRC					
DE	German Researc	h Found	lation DFG			
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI					
EE	Estonian Research Council ETAG					
ES	,	'	Competitiveness MINECO			
FR	French National Institute for Agricultural Research INRA					
HU	Hungarian Acade	, .				
IL IT	Ministry of Agriculture and Rural Development MOARD					
IT	Ministry of Education, University and Research MIUR					
LV	Latvian Academy of Sciences LAS					
NL	The Netherlands Organisation for Scientific Research NWO					
NO	Research Council of Norway RCN					
NZ	Ministry of Business, Innovation and Employment MBIE					
PL	National Centre for Research and Development NCBiR					
PT	Foundation for Science and Technology FCT					
RS	95 Ministry of Education, Science and technological Developme MPNTR					

UK Biotechnology and Biological Sciences Research Council BBSRC

development of a common agenda for plant science in Europe and create a joint research programme. ERA-CAPS will also facilitate data management, access and sharing solutions. Through external engagement ERA-CAPS will enable interaction between researchers, funders and relevant European initiatives, and assist in the systematic exchange of information to facilitate the expansion of the network and the involvement of new members and affiliates.

Such a network will significantly help plant sciences address both current and future challenges in food and non-food crop production.

### Consortium

The ERA-CAPS consortium consists of 19 partners from 19 countries. Also there are seven observer organisations: European Plant Science Organisation EPSO (Europe), National Research Agency ANR (France), Department of Biotechnology DBT (India), Ministry of Agricultural, Food and Forestry Policies MiPAAF (Italy), Japan Science and Technology Agency JST (Japan), Ministry of Agriculture, Forestry and Food MAFF (Slovenia), National Science Foundation NSF (United Stated of America).

### Mapping and scoping activities

A number of mapping and scoping activities have been carried out or are planned by ERA-CAPS. The four key activities are as follows:

- National plant science programmes: Partner funding agencies were surveyed to establish existing national plant science programmes and funding priorities. This inventory provided an update to information supplied by partners involved in ERA-PG, and established a baseline for the new partners. This identified areas of common interest that were used to identify topics for the first transnational call.
- Key facilities and personnel: Key information on plant scientists and major facilities available in the partner organisations will be gathered and used to populate the Meta-Knowledge

Base. This will facilitate the formation of collaborations within the plant science community

- Existing transnational activities: This survey identified the multinational networks ERA-CAPS partners are involved in, the funding mechanisms and processes adopted in these networks, and if they have become self-sustaining. This provides background evidence that will enable ERA-CAPS to become self-sustaining.
- Data sharing policies: Partners were surveyed on their organisational or national data sharing policies. This will feed into the ERA-CAPS objective to develop a datasharing policy.

The results of many of the mapping and scoping activities carried out by ERA-CAPS will be used to populate a Meta-Knowledge Base that is being developed as one of the deliverables of the ERA-NET.

## Joint calls

#### First call 2012

The first ERA-CAPS call for proposals launched in November 2012 and closed in February 2013 is entitled: "Expanding the European Research Area in Molecular Plant Sciences". The first ERA-CAPS call will fund high guality collaborative transnational research fundamental in molecular plant science. The expected duration of projects will be three years. Sixteen ERA-CAPS partner organisations or ERA-CAPS associated organisations from 15 countries are participating in this first call. By agreement of the funding organisations involved, the first joint call launched by ERA-CAPS was intended to allow maximum engagement of the plant science community and was therefore broad in scope. covering all areas of molecular plant science. No specific topics were defined; however, the following themes were identified as being of common interest to several of the participating funding organisations: Food Security; Non-food crops; Adaptation to a changing climate; Biotic/ abiotic stresses.

Funding partners for the first joint call:

Austrian Science Fund FWF (Austria), National Fund for Scientific Research FRS-FNRS (Belgium), Danish Agency for Science, Technology and Innovation DASTI (Denmark), French National Institute for Agricultural Research INRA (France), German Research Foundation DFG (Germany), Agriculture and Food Development Authority TEAGASC (Ireland), Department of Agriculture, Food and the Marine DAFM (Ireland), Ministry of Agriculture and Rural Development MOARD (Israel), Latvian Academy of Sciences LAS (Latvia), The Netherlands Organisation for Scientific Research NWO (The Netherlands), Research Council of Norway RCN (Norway), Ministry of Business, Innovation and Employment MBIE (New Zealand), National Centre for Research and Development NCBiR (Poland), Foundation for Science and Technology FCT (Portugal), Ministry of Education, Science and technological Development MPNTR (Serbia), Biotechnology and Biological Sciences Research Council BBSRC (United Kingdom), National Science Foundation NSF (United States) (no direct financial contribution; collaboration offered by means of a parallel call)

The total budget for the first call is expected to be around EUR 20 million.

#### Second call

The second call is anticipated late 2013/early 2014 and will again be a broad and open call, but with themes tailored to fit specific priorities of the different ERA-CAPS partners.





ERA-IB-2

ERA-NET for Industrial Biotechnology 2



### **Objective**

The ERA-NET Industrial Biotechnology 2 (ERA-IB-2) will increase Europe's competitiveness in Industrial Biotechnology (IB) by providing a platform for long-lasting collaboration and cooperation between national/regional programme owners and managers of a large number of European countries, including new Member States and Associated /ICP Countries.

The key mission of ERA-IB-2 is to contribute to a European knowledge-based bioeconomy (KBBE) by reducing fragmentation in IB R&D funding and by fostering the exchange of knowledge across borders, and to increase cost-effectiveness by pooling resources and optimising mechanisms for joint calls. The KBBE is the tool to achieving sustainable economic growth in Europe, as it will lead to sustainable, environmentally sound industrial processes and products which substitute fossil resources with bio-based (renewable) raw materials.

Industrial Biotechnology will be one of the key technologies of this KBBE, and ERA-IB-2 will ensure Europe makes full use of her potential by identifying IB-related R&D needs through stakeholder dialogue and responding to these needs with coordinated, joint actions (joint calls). These calls will lead to greater integration of IB R&D actors and activities, and will also improve access to finance and stimulate industry participation and thus industry investment in the lead market of bio-based products. As a consequence, the limited resources of each

#### PROJECT DETAILS

Period		-	2011 12 01	
Period		From To	2011-12-01 2015-11-30	
Project reference		291814		
Progr acron	amme ym	FP7-KBBE		
Торіс	identifier	KBBE.2011.3.3-01		
Title		Deepened and enlarged European cooperation in the area of Industrial Biotechnology - ERA-NET		
Contr	act type	Coordin	ation and support action	
Total cost EU contribution		€ 2 251 507 € 1 999 992		
Number of participants		18		
Coordinator		Agency for Renewable Resources FNR, Germany		
Contact person		Karen Görner T +49-3843-6930-162 E k.goerner@fnr.de		
Webs	ite	www.era-ib.net		
Partic	ipants			
BE	Department of Economy, Science and Innovation Flemish Government EWI			
BE	Agency for Innovation by Science and Technology IWT			
DE	Agency for Renewable Resources FNR			
DE	Jülich Research Centre JUELICH			
DE	Federal Ministry of Education and Research BMBF			
DE	Saxon Ministry of Science and Fine Arts SMWK			

 
 DK
 Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI

 ES
 Ministry of Economy and Competitiveness MINECO

- FR French Environment and Energy Management Agency ADEME IL Ministry of Agriculture and Rural Development MOARD
- NL The Netherlands Organisation for Scientific Research NWO NO Research Council of Norway RCN
- PL National Centre for Research and Development NCBiR
- PT Foundation for Science and Technology FCT
- RO Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI
- RU Foundation for Assistance to Small Innovative Enterprises FASIE
- TR Scientific and Technological Research Council of Turkey TUBITAK
- UK Technology Strategy Board TSB

country will be used more efficiently.

ERA-IB-2 builds on the success of the FP6 project ERA-IB and develops the network further, into a truly pan-European approach to IB R&D funding which should ultimately lead to a self-sustained network. ERA-IB-2 will also align with other initiatives in the area and e.g. support the developing JPIs by presenting to them the view of the national/regional programmes on IB topics.

### Consortium

ERA-IB is an ERA-NET supported by the European Community. In the ERA-NET "Towards an ERA in Industrial Biotechnology" partners (18) and observers (7) from 21 different countries ioin forces to reduce fragmentation of national research efforts in the area of Industrial Biotechnology. Within the ERA-IB framework two joint calls for proposals resulted in 18 highly innovative European research projects with a total budget over EUR 20 million. The seven observer organisations are: Ministry of Science, Education and Sports MZOS (Croatia), Finnish Funding Agency for Technology and Innovation TEKES (Finland), Section Italian Technology Platform for Sustainable Chemistry IB (Italy), Latvian Academy of Science LAS (Latvia), Agency for Science, Innovation and Technology (Lithuania), Ministry of Higher Education. Science and Technology MHEST (Slovenia), Swedish Governmental Agency for Innovation System VINNOVA (Sweden), Biotechnology and Biological Sciences Research Council BBSRC (United Kingdom).

# Mapping and scoping activities

Mapping of the European and global IB landscape was done under ERA-IB-1. As part of call preparation, ERA-IB-2 engages IB stakeholders in defining the R&D topics to be covered by a call. In 2012, an online questionnaire was sent through the national/regional distribution lists, and the results used as a basis for discussion at a stakeholder workshop organised a few months later. The result of this workshop was a list of topics used for the 3rd and 4th joint call. In preparing the 5th call, this stakeholder consultation process will be repeated.

ERA-IB-2 will also work towards a vision for future European IB research and work on a Strategic Research Agenda (SRA). It is planned to collaborate with ETP SusChem on this.

## Joint calls

Following the first two calls conducted by ERA-IB under FP6, two more calls were launched by ERA-IB-2.

#### Third call 2012

ERA-IB launched its third call for multilateral research projects using industrial biotechnology (IB) at the beginning of March 2012. It is the first joint call under ERA-IB-2, but continuous numbering is used for clarity's sake. The main goal of the call is to bring together academics and industrial researchers in the field of IB and encourage them to work across borders, thereby contributing to the entire value chain. Setting up partnerships should lead to joint research and development activities, through which sustainable alternatives to petroleum-based products can be realised.

The total budget is approximately EUR 18 million.

Projects funded:

- 1. POAP Production of Organic Acids for Polyester Synthesis. Coordinator: BIOPOLIS, S.L.. Participating countries: Spain, Germany, Turkey
- CESBIC Critical Enzymes for Sustainable Biofuels from Cellulose. Coordinator: University of York. Participating countries: United Kingdom, France, Denmark
- MySterl Novel industrial bioprocesses for production of key valuable steroid precursors from phytosterol. Coordinator: INBIOTEC. Participating countries: Spain, Russia, United Kingdom, Norway, Germany
- 4. THERMOGENE Novel thermostable enzymes for industrial biotechnology.

Coordinator: University of Exeter. Participating countries: United Kingdom, Norway, Germany, Russia

- 5. FIBERFUEL Improved cellulosomes to enhance saccharification of industriallysuitable lignocellulosic biomass residues; Coordinator: CSIC. Participating countries: Spain, Israel, France, Poland, Ireland, Germany
- 6. HyPerIn Integrative Approach to Promote Hydroxylations with Novel P450 Enzymes for Industrial Processes; Coordinator: CLECTA. Participating countries: Germany, United Kingdom, Norway, Belgium, Poland
- CONTIbugs Overcoming metabolic stochasticity and population dynamics in microbial cell factories. Coordinator: TU Dortmund. Participating countries: Germany, Spain, Denmark, Israel
- PRODuCE Tailor-made expression hosts depleted in protease activity for recombinant protein production. Coordinator: IME. Participating countries: Germany, United Kingdom, Portugal
- 9. Cellulect A Synthetic Biology Platform for the Optimization of Enzymic Biomass Processing. Coordinator: University of Edinburgh. Participating countries: United Kingdom, Germany, France
- REACTIF Rational Engineering of Advanced Clostridia for Transformational Improvements in Fermentation. Coordinator: Green Biologics Ltd. Participating countries: United Kingdom, Norway, Germany
- 11. SCILS Systematic consideration of inhomogeneity at the large scale: towards a stringent development of industrial bioprocesses. Coordinator:

Forschungszentrum Jülich. Participating countries: Germany, Spain, Denmark, United Kingdom, Norway

12. MICROTOOLS - MICROscale downstream processing TOOLbox for Screening and process development. Coordinator: DTU. Participating countries: Denmark, United Kingdom, Romania

#### Fourth call 2013

On 1 February 2013, ERA-IB-2 launched its fourth joint call for multilateral research projects using industrial biotechnology (IB).

For the purposes of this fourth call, a number of partners in the ERA-NET EuroTransBio (ETB) participated in the network's actions. ETB has been active since 2004 as part of the ERA-NET scheme and calls have been launched since 2006. This joint action of ERA-IB-2 and ETB widened the possible partner base for the call, as ETB brought in additional countries and its established close connection to the European SME landscape. Until 26th April 2013, 45 preproposals were submitted to the central Call Secretariat. These pre-proposals were checked for their eligibility for funding by the national/ regional funding bodies, and their scientific and technological quality was evaluated by a panel of independent experts, with the 18 best being invited to hand in full proposals.

All submitted full proposals were evaluated by the international expert panel, and 12 proposals were recommended for funding by the national/ regional funding bodies. Contract negotiations with these consortia are currently under way, and the projects are expected to start in early 2014.





From 2014-01-01

KBBE 2013 3 2 -01

to

604814

FP7-KBBF

2017-12-31

# ERA-MBT

### MARINEBIOTECH

#### PROJECT DETAILS

#### Period

Project reference Programme acronym Topic identifier Title Contract type Total cost EU contribution Number of

Marine biotechnology ERA-NET Coordination (or Networking) Action € 1 999 838 € 2 000 000 20 The Research Council of Norway RCN, Norway

Steinar Bergseth T +47 22037323 E stb@rcn.no www.marinebiotech.eu

#### Website Participants

participants

Coordinator

Contact person

- BE Agency for Innovation by Science and Technology IWT
- BE Flanders Marine Institute VLIZ
- DE Federal Ministry of Education and Research BMBF
- DE Jülich Research Centre JUELICH
- DK Ministry of Science, Technology and Innovation Danish
- Agency for Science, Technology and Innovation DASTI
- DK Technical University of Denmark DTU
- ES Ministry of Economy and Competitiveness MINECO
- FR National Centre for Scientific Research CNRS
- IE Marine Institute MI
- IS Icelandic Food and Biotech R&D Company MATIS
- IS Icelandic Centre for Research RANNIS
- IT National Research Council CNR
- NC New Caledonia Economic Development Agency and Innovation and Technology Park ADECAL TECHNOPOLE
- NO Innovation Norway IN
- NO Research Council of Norway RCN
- PT Foundation for Science and Technology FCT
- RO Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI
- SE Region Västra Götland SU-DART
- SE Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- SI Ministry of Education, Science, Culture and Sport MESCS

## **Objective**

Objectives of the Marine Biotechnology ERA-NET ( ERA-MBT) are:

- Set up cooperation tools and pool resources to undertake joint funding of transnational projects for collaborative research at a European scale and further increase the level of coordination between national funding bodies in Europe.
- Avoid duplication and ensure complementarities with relevant on-going and new efforts.
- Take into account specific marine biotech research/knowledge needs of other actors, platforms and initiatives and provide a means for better cohesion and alignment of objectives and actions where this is needed and give added value (i.e. identify and fill the gaps).
- Establish interactions with related ERA-NETs, ETPs and other initiatives across the marine and other applicable sectors.
- Identify hurdles and stimulate industrial uptake and developments from Marine Biotechnology.
- Aim to identify and support activities which will be most effective, where the return on investment does not solely have to be in monetary terms.
- Take into account global trends and identify areas where Europe could benefit from collaborating with international initiatives and partners.
- Ensure proper attention to developing a European Marine Biotech Communication

Strategy; the European Marine Biotech portal www.marinebiotech.eu will be developed towards being a single point of entry for those who are not in the founding ERA-MBT consortium.

Overarching objectives for ERA-MBT are to:

- Make important contributions towards meeting the 'Grand Challenges' of the 21st century and the development of greener, smarter economies that are central components of the Europe 2020 Strategy.
- Be a strong driver for the development of the European bioeconomy as laid out in "Innovating for sustainable growth: A bioeconomy for Europe", and in the OECD report "The Bioeconomy to 2030: designing a policy agenda".
- Assist European countries to fulfil regional strategies for economic support of the European periphery by providing the means for coordinated science- and technologybased progress.

# Consortium

The ERA-MBT consortium consist of 20 organisations from 14 countries.

# Mapping and scoping activities

For an enabling and horizontally relevant technology like marine biotech, it is important to identify technological development needs, gaps and complementarities between national and ERA-activities. Workshops with relevant national contact persons (scientific as well as administrative) will be organised to identify these and ensure marine biotech development through relevant joint calls, where also industries are involved.

Industry relevant marine biotech activities

identified by European and international stakeholders, strategies and programs, will be mapped to identify needs and develop marine biotech for beneficial and sustainable industrial use. Results will be aggregated and disseminated to increase the awareness in industrial environments about potentials within marine biotechnology. A stakeholder conference will be planned.

A mapping of relevant courses (master programmes, doctoral schools, summer schools, hands-on trainings, online courses) will be done, in order to make a listing of training possibilities within Europe.

Opportunities for career development will be enhanced through a web-based communication forum, which will support student and scientist contacts, provide a career forum for marine biotechnology researchers, and be a communication channel with potential employers, including the industry.

In order to obtain sustainability, benefits and risks will be analysed, and assessments of the potential impacts and unintended consequences considered. Stakeholders will be engaged in dialogues to obtain a mutual understanding of sustainability and risk issues, and work for beneficial solutions. IPR/IPP issues, responsible research and innovation (RRI) and ethical issues (ELSA) will be addressed through a workshop and in the funded projects.

All information will be accessible through the marine biotech online portal at www.marinebiotech.eu.

# Joint calls

Three joint calls and common calls with other activities, will be planned with topics decided between the partners, and after discussions with stakeholders, relevant ERA-NETs and other ERA activities and projects.





# **ERASynBio**

Development and Coordination of Synthetic Biology in the European Research Area



#### PROJECT DETAILS

F	Perio	d	From To	2012-01-01 2014-12-31		
Project reference		29172	291728			
Programme acronym		FP7-K	FP7-KBBE			
Т	opic	identifier	KBBE.	KBBE.2011.3.6-06		
Т	ïtle		Synthe	etic Biology ERA-NET		
C	ont	ract type	Coordi	nation (or Networking) Action		
Total cost EU contribution			€ 2 350 282 € 1 997 022			
Number of participants		16				
Coordinator		Jülich Research Centre JUELICH, Germany				
Contact person		Annette Kremser T +49 2461 61 3213 E a.kremser@fz-juelich.de				
Website		www.erasynbio.eu				
Participants						
A	ΑT	Austrian Research Promotion Agency FFG				
(	ΞH	H Federal Department of Economic Affairs FDEA - Commi for Technology and Innovation KTI				
[	DE Federal Ministry of Educa			cation and Research BMBF		
[	DE	Jülich Research Centre JUELICH				
[	ЭK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
E	S	Ministry of Economy and Competitiveness MINECO				

- FI Academy of Finland AKA
- FR National Centre for Scientific Research CNRS
- FR National Agency for Research ANR
- GR General Secretariat for Research and Technology GSRT
- LV Latvian Academy of Sciences LAS
- NL The Netherlands Organisation for Scientific Research NWO
- NO Research Council of Norway RCN
- PT Foundation for Science and Technology FCT
- SI Ministry of Education, Science, Culture and Sport MESCS
- UK Biotechnology and Biological Sciences Research Council BBSRC

## **Objective**

Synthetic biology is an emerging and promising research area with the potential to have a strong impact on innovation and technological progress that is beneficial for the economy and for society as a whole. It is an area at the intersection of engineering, bioscience, chemistry, and information technology. The central idea of ERASynBio is to promote the robust development of synthetic biology by structuring and coordinating national efforts and investment. It develops a white paper (WP1), which supports the emergence of national synthetic biology programmes and which lays the ground for transnational funding activities via joint calls in the project (WP6). ERASynBio stimulates and tackles the interdisciplinary nature and early stage of the field by offering training and educational possibilities (WP4). It provides extensive dialogue options (WP1-5) and exchange fora (WP3) for the scientific community. Close collaboration between academia and industry aiming to fertilize the innovation process occurs on several levels (WP1, WP3, WP6). To adhere to ethical, legal and societal aspects as well as to technical issues like standardisation and infrastructure development ERASynBio traces and integrates the ongoing work and research on these framework conditions and integrates them in the white paper (WP2 and WP5). It is a challenge to successfully coordinate the newly emerging activities in this field and thus an aim to create the ERA of synthetic biology in parallel with the development of the scientific community.

ion

### Consortium

The ERASynBio consortium consists of 16 governmental funding bodies from 12 EC Member States (Austria, Denmark, Finland, France, Germany, Greece, Latvia, Netherlands, Portugal, Spain, Slovenia, UK) and two Associated Countries (Norway and Switzerland). All of these 16 partners are key players in their national research systems and are successfully running and/or planning national funding initiatives in the field of Synthetic Biology implemented either as dedicated activities or as integrated part within their national programme (i.e. as sub-programme, action line, thematic priority, etc.). The ERASynBio consortium has one observer, the National Science Foundation NSF (United States).

# Mapping and scoping activities

- Analysis of the current Synthetic Biology Scientific Landscape
- Development of a Strategic Research Agenda "White Paper"
- International benchmarking
- Activity catalogue of effective public dialogue measures
- Position statements on governance and intellectual property rights
- Position statement on educational needs
- Position statement on data and infrastructure needs
- Tackling questions of interdisciplinarity and community building via different workshops, awards and public relation measures
- Tackling questions of training via summer schools and support of the iGEM competition

# Joint calls

#### First call 2013

The 1st ERASynBio call was launched in May 2013 and is open until the 26th of August 2013. It is entitled: "Building Capacity in Synthetic Biology". The challenge for ERASynBio is to strengthen the research community in Synthetic Biology, and to organise the further development in a coordinated and socially responsible and sustainable way. The 1st joint call provides a powerful tool to encourage interdisciplinary collaborations, to facilitate a European and world-wide network and to establish and strengthen the scientific community in Synthetic Biology. The 1st joint call allows researchers to identify new opportunities and directions in the field of Synthetic Biology. It provides an evolving line of European transnational projects and facilitates the identification of barriers in Synthetic Biology and needs of the stakeholders.

Twelve organisations from 12 countries including the ERASynBio observer NSF (United States) will participate in the 1st joint call. Expected volume: EUR 15 million. The call aims at funding research proposals in the field of Synthetic Biology, which can be described as a multidisciplinary approach at the intersection of life sciences, engineering and information technology. The 1st joint call addresses broad research areas within Synthetic Biology, based on a clear definition: "ERASynBio defines Synthetic Biology as the engineering of biology: the deliberate (re) design and construction of novel biological and biologically based parts, devices and systems to perform new functions for useful purposes, that draws on principles elucidated from biology and engineering."

#### Second call 2014

The 2nd call "Enhancing Synthetic Biology through strategic action" scheduled for 2014 will be based on the white paper.





# **ERASys**APP

**Systems Biology Applications** 



#### PROJECT DETAILS

#### Period Project reference Programme acronym Topic identifier Title Contract type Total cost EU contribution Number of participants Coordinator Contact person

 
 From
 2013-01-01 2015-12-31

 321567
 FP7-KBBE

 KBBE.2012.3.6-01
 ERA-NET for Applied Systems Biology

 Coordination (or Networking) Action
 € 2 278 362 € 1 999 862

 16
 6

Jülich Research Centre JUELICH, Germany Petra Schulte E petra.schulte@fz-juelich.de www.erasysapp.eu

#### Website Participants

- CH Swiss National Science Foundation SNSF (represented by SystemsX.ch)
- CY Research Promotion Foundation RPF
- DE Federal Ministry of Education and Research BMBF
- DE Jülich Research Centre JUELICH
- EE Estonian Research Council ETAG
- ES Institute of Health Carlos III, ISCIII
- FR French National Institute for Agricultural Research INRA
- IS Icelandic Centre for Research RANNIS
- LU National Research Fund FNR
- LV Latvian Academy of Sciences LAS
- NL The Netherlands Organisation for Health Research and Development ZonMw
- NO Research Council of Norway RCN
- RO Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI
- RO National Authority for Scientific Research ANCS
- SE Swedish Research Council VR
- SE Västra Götaland Regional Council VGR

### **Objective**

The main objective of the ERANET proposal Systems Biology Applications ERASys*APP* (app = application = translational systems biology) is to promote multidimensional and complementary European systems biology (SB) projects, programmes, and research initiatives on a number of selected research topics. Inter alia, ERASys*APP* will initiate, execute and monitor a number of joint transnational calls on systems biology research projects with a particular focus on applications or in other words so called translational systems biology research approaches (application-oriented and/ or industry-relevant).

The joint call proposals and their respective topics will be on applied aspects of complex biological processes in microorganisms, plants, and animals. As common feature, all addressed proposal topics will tackle biological and physiological processes of common interest in the field of life sciences and biotechnology.

In order to reach our ambitious goals, ERASys*APP* has been outlined to initiate novel activities and impulses for SB in the ERA. Taking past successful developments and achievements into account, ERASys*APP* will be able to continue and build on work, which has been performed by the previously funded successful ERANET on SB, ERASysBio and its spin-offs ERASysBio+, SysMO and SysMO<sub>2</sub> (www.erasysbio.net). This is advantageous, since it allows for the efficient use of past experiences and tangible results

of ERASysBio and will guarantee for maximum synergistic effects.

Although building on the improvements of ERASysBio, ERASys*APP* will provide a bundle of novel aspects, ideas, activities and sustainable new features to push SB towards new challenges and horizons. Apart from setting up joint transnational calls and giving impulses for industry to apply more SB approaches, ERASys*APP* will focus on horizontal topics such as improved data management and sharing, training and networking with national, transnational, and EU SB initiatives as well as programmes outside the ERA.

### Consortium

A total of 16 funding agencies/partners from 13 countries cooperate within the novel ERA-NET for Applied Systems Biology ERASys*APP*.

## Mapping and scoping activities

Different WPs of ERASvs APP will provide mapping and scoping activities in a broad variety of fields and topics of SB. These ERASysAPP activities being predominantly performed by WPs 5 and 6 will include the assembly of inventories of R&D organisations acting in SB in ERA Member States as well as Associated States, of EU and national initiatives related to SB research and of innovative companies in the field of SB. Moreover, ERASys APP will publish a report on the needs and gaps of European SB and it will update and improve the current strategic research agenda on European SB. Another major task of ERASys APP will be to gather information on necessary developments and decisions in data management related issues of SB.

Please visit the ERASysAPP website: www.erasysapp.eu for further information.

### Joint calls

In total, the ERASys*APP* consortium will set up three separate joint transnational translational and thus applied systems biology calls according to the DoW. The call secretariat, which will be set up by the Spanish partner ISCIII, will handle and process the calls according to the Steering Committees (SC) decisions on a variable geometry basis.

The call topics will cover and address (at least in part) the thematic fields of the predecessor ERA-NET ERASysBIO and its spin-offs as well as novel topics in green, red and grey biotechnology. Hence, there will be no or hardly any limitation on the selection of test organisms making sure that ERASys*APP* funding will go for the best scientific ideas. However, the fact that ERASys*APP* will fund translational and applied SB does not means that ERASys*APP* will fund SB in the clinical and strictly applied medical area. Translational just means to go for a useful purpose. Hence, the terms applied and translational are almost of equal meaning.

As a major objective, the ERASys*APP* consortium and its respective evaluation boards will enforce the selection and funding of those projects, which apply a native systems biology approach. This means that successful projects (as a mandatory prerequisite) will have to include distinct modelling approach aspects and WPs, which reflect and impact on the experiments performed within the project. This attitude is thought to ensure the benefits of the systems biology iterative cycle of experiments, analysis, evaluation and modelling to create mathematical models (to be proved or disproved) to describe biological process of different scales and on different organisational levels of an organism.

The first call is schedule to be announced in November 2013. Please visit the ERASysAPP website www.erasysapp.eu for further information.





# **ETB-PRO**

EUROpean programme for **TRANSnational R&D&I cooperations** of BIOtech SMFs



# **Objective**

ETB-PRO will reduce the fragmentation of ERA and support high quality R&D&I project cooperation of European biotech SMEs by building on success factors of the predecessor project and establish a sustainable joint program with high funding impact. This will be done in two steps thereby using four calls with a funding volume of EUR 35 million each as an implementation tool.

First step: Integration. ETB-PRO will broaden the network through including at least five new partners into the current network of European biotech key players, thereby arranging for variable geometry. A particular focus will be on remaining key players and on CEE countries. ETB-PRO will actively avoid duplication of efforts through targeted cooperation with other EU programs and position the program through unique combination of features to provide complementarities to other EU funding instruments. ETB-PRO will start joint programming, seek for compatibility among participating national programs, and implement the most suitable solutions when operating two ioint calls. Immediate Impact: ETB-PRO bottomup biotech program will enrich the ERA funding landscape for the benefit of European high-tech SMEs seeking a gateway to ERA or focusing on specific bilateral cooperation. ETB-PRO pilot program will become a sound basis to venture a global approach for international cooperation.

Second step: Sustainability. ETB-PRO will strengthen the operational efficiency of the

#### PROJECT DETAILS

Peri	bd	From To	2009-01-01 2013-12-31		
Proj	ect reference	23536	235368		
Programme acronym		FP7-C	FP7-COORDINATION		
Торі	c identifier	ERANE	ERANET.2008.1		
Title		ERA-N	ET proposals of a horizontal nature		
Contract type		Coordi	Coordination (or Networking) Action		
Total cost EU contribution		€ 3 648 567 € 3 166 533			
Number of participants		15 (initially), 13 (currently)			
Coordinator		Federal Ministry of Economy, Family and Youth BMWFJ, Austria			
Contact person		Christian Listabarth T +43 57755 1701 E christian.listabarth@ffg.at			
Website		www.eurotransbio.eu			
Participants					
AT	Federal Ministry of Economy, Family and Youth BMWFJ				
AT	Austrian Research Promotion Agency FFG				

- BE Agency for Innovation by Science and Technology IWT
- BE Public Service of Wallonia DGOEER
- DE Federal Ministry of Education and Research BMBF
- DE Jülich Research Centre JUELICH
- ES Basque Government (Ministry of Economic Development and Competitiveness)
- ES Basque Innovation Agency INNOBASQUE
- ES Catalan Company Support Agency
- ES Department of Rural Development, Industry, Employment, and Environment of the Government of Navarra NAVARRA (since 2011)
- FL Finnish Funding Agency for Technology and Innovation TEKES
- ER Oseo Innovation OSEO (left 2010)
- HU National Innovation Office NIH
- IT Ministry of Economic Development MSE
- IT Italian Institute for Industrial Promotion IPI (integrated into MSE 2010)
- NL Ministry of Economic Affairs EZ (left 2011)

program through streamlining procedures and optimizing processes, and test and improve operational performance in two more calls by implementing well defined and cost-efficient tools and processes. These applications and knowhow will be transferred into the agencies daily routine before the launch of ETB-PRO sustainable joint program. Long-term impact: ETB-PRO will complement the ERA funding landscape through making optimal use of national/regional resources, and durably strengthen competitiveness of the European biotechnology.

### Consortium

The consortium of ETB-PRO originally consisted of 15 organisations from seven countries and four regions (Austria, Belgium (Flanders, Wallonia), Finland, France, Germany, Hungary, Italy, Spain (Basque Country, Catalonia) and The Netherlands, and changed over time. Currently it holds 13 organisations from 10 European countries and regions plus three non-contractual partners adding two more EU regions (Andalucia and Alsace) and Russia to the calls. The organisation names are: Madrid's Institute of Development IMADE (2009-2010) (Spain), Department of Rural Development, Industry, Employment, and Environment of the Government of Navarra NAVARRA (2010-2011) (Spain), Agency for Innovation and Development of Andalucia IDEA (since 2011) (Spain), Regional Council of Alsace CRA (since2011) (France), Israeli Industry Centre for R&D MATIMOP (2010-2011) (Israel), Foundation for Assistance to Small Innovative Enterprises FASIE (since 2012) (Russia).

# Mapping and scoping activities

Based on the settings of the procedure for joint calls, the experiences gained in the predecessor project, and building on the individual designs of 13 different national/regional funding programs, EuroTransBio further developed the call procedure and established fixed call settings in order to optimize efforts and to continue the launch of calls in a self-sustaining way. Call settings were concisely described, a set of standardized call documents was

developed, call administration was simplified by establishing a centralized call office (ETB office). A joint database for applications, projects and project outcomes was implemented in order to ease operational activities. New participants inform about their program through answering a questionnaire and can easily adapt to the well documented processes.

Basic elements of the self-sustaining call design are (i) a bottom up approach towards the call topics (biotechnology applications, no thematic priorities), (ii) a strong focus on the target group (SMEs and their strategic partners, i.e. research organisations), (iii) a one-step call procedure, (iv) administration of the calls by a centralized ETB office, (v) operation of proposal submission, evaluation and project monitoring based on a joint database, (vi) a fixed timeline, and (vii) funding through a virtual common pot.

## Joint calls

ETB-PRO launched four transnational calls (2009, 2010, 2011, 2012) with a generic call title "Funding of Industrial R&D Projects in Biotechnology". The topic of the call was bottom-up and allowed for all sectors of modern biotechnology. The calls aimed at transnational cooperation projects between biotech SMEs and their strategic partners (RTOs, universities and large companies). Projects were funded by the national/regional funding agencies using the virtual common pot model.

#### First call 2009

The following countries/regions participated in the ETB call (2009): Austria, Belgium (Flanders, Wallonia), Finland, France, Germany, Hungary, Italy, Spain (Basque Country, Catalonia, Madrid) and the Netherlands.

There were 53 proposals submitted and 21 selected for funding. The projects amounted to a total of EUR 36 million project costs of which EUR 20 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

#### Projects funded:

- 1. BioSteCell Biosensor for Stem Cells detection and extraction. Coordinator: Novaetech srl (Italy). Participating countries: Germany, Italy
- Glycams Glycosylation optimisation platform for therapeutic proteins. Coordinator: DUCARES B.V. (The Netherlands). Participating countries: France, The Netherlands
- 3. PURADVEC Development of a production process with CIM monoliths for HCV and Malaria vaccines based on chimp Adenovirus vectors. Coordinator: OKAIROS (Italy). Participating countries: Austria, Italy
- BIOALGAL Biological compounds obtained by microalgal innovative extraction processes. Coordinator: Tecnoalimenti ScpA (Italy). Participating countries: Catalonia (Spain), Italy
- 5. AnCaBoR Anticancer Bone Reconstruction with Poly-Cyclodextrins Functionalized Porous Bioceramics for Local Chemotherapy. Coordinator: ONCOVET, Veterinary Oncology Center (France). Participating countries: France, Germany
- SPRAI Surface Plasmon Resonance biosensors for pathogens detection of Agrofood Interest. Coordinator: BIOTECGEN SRL (Italy). Participating countries: Madrid (Spain), Italy
- MITRANZEN-B MIDGE<sup>®</sup>-based Hepatitis B Vaccine, formulated with SAINT<sup>®</sup> transfection reagent and administered by ZENEO<sup>®</sup> device. Coordinator: MOLOGEN AG (Germany). Participating countries: Germany, The Netherlands
- 8. ESSENCE Embryonic Stem cell-derived progeny for in vitro Screening of Electrically active Neuronal Cell networks. Coordinator: ETT srl (Italy). Participating countries: Germany, Italy
- 9. BioSF Biocatalyzed synthesis of fragrances. Coordinator: BICT sr (Italy). Participating countries: France, Italy
- Mycocon Development of a bioassay for mycotoxin detection in animal feeds and tissues and identification of detoxifying enzymes. Coordinator: EUCODIS Bioscience

(Austria). Participating countries: Austria, Germany

- 11. FLU-SECURE Development of heterologous prime-boost vaccination strategies for pandemic influenza based on two innovative platform technologies. Coordinator: Mucosis BV (The Netherlands). Participating countries: Italy, The Netherlands
- WHF Project The development of a novel Wound Healing Formulation for advanced wound management. Coordinator: A-Skin Nederland B.V (The Netherlands). Participating countries: Flanders (Belgium), The Netherlands
- TARGETING NHRs Targeting nuclear hormone receptors with novel fragmentbased strategies. Coordinator: Graffinity Pharmaceuticals GmbH (Germany). Participating countries: France, Germany
- ARiBCA Prediction of superficial bladder cancer recurrence and aggressiveness using methylation and RNA-expression profiles. Coordinator: MDX health (Belgium). Participating countries: The Netherlands, Wallonia (Belgium)
- 15. BioDualDelivery Biopolymer based medical implants for local and systemic drug delivery including tissue engineering of cartilage. Coordinator: EMCM BV (The Netherlands). Participating countries: Germany, The Netherlands
- ProTuMa Novel protein markers for tumor diagnosis and therapy. Coordinator: Externautics SpA (Italy). Participating countries: Italy, The Netherlands
- 17. Hollowkit Optimized biodegradable tubular bioprosthesis made of chitosan for the repair of esophageal defects. Coordinator: KitoZyme (Belgium). Participating countries: Germany, Wallonia (Belgium)
- ChemBiDD Targeted chemical biology for drug discovery. Coordinator: Biomedicum Genomics Ltd (Finland). Participating countries: Germany, Finland
- 19. AbComCID Development of antibody combination therapy for chronic inflammatory diseases. Coordinator: Merus (The Netherlands). Participating countries: Germany, The Netherlands

- 20. NITDBOP NON INVASIVE TARGETED DELIVERY BASED ON PROTEINS. Coordinator: Arquebio S.L. (Spain). Participating countries: Catalonia (Spain), The Netherlands
- 21. PharmaYeast Target Identification for Increased Biopharmaceutical Yields in Humanized Glycoengineered Yeast. Coordinator: Glycode SAS (France). Participating countries: France, Germany

#### Second call 2010

The following countries/regions participated in the ETB call (2010): Austria, Belgium (Flanders, Wallonia), Finland, France, Germany, Hungary, Italy, Spain (Basque Country, Catalonia, Madrid) and the Netherlands.

There were 34 proposals submitted and 18 selected for funding (one project was stopped after a positive funding decision). The projects amounted to a total of EUR 34 million project costs of which EUR 20 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- 1. CYPchip Development of a novel CYP macroarray for the assessment of individual susceptibility to drugs. Coordinator: PharmGenomics GmbH (Germany). Participating countries: Germany, Wallonia (Belgium)
- BIOMOS NEW BIOTECHNOLOGICAL APPLICATIONS IN MOSQUITO CONTROL. Coordinator: CENTRO AGRICOLTURA AMBIENTE "G.NICOLI" (Italy). Participating countries: Hungary, Italy
- HLA-Monitor Diagnostic application for precise detection of HLA antibodies in transplantation patients. Coordinator: Imusyn GmbH & Co. KG (Germany). Participating countries: France, Germany, Wallonia (Belgium)
- 4. ORYPRO Fighting Prostate Cancer: Development of Monoclonal Antibodies against new targets. Coordinator: Oryzon Genomics S.A. (Spain). Participating countries: Catalonia (Spain), The Netherlands

- 5. B4AD Bayesian statistics and Bioinformatics for Biomarker validation using Biobanks in Alzheimer's Disease (B4AD). Coordinator: PamGene International BV (The Netherlands). Participating countries: The Netherlands, Wallonia (Belgium)
- Mitomodels Models for Alzheimer's and related diseases drug development based on the mitochondrial cascade hypothesis. Coordinator: JSW Life Sciences GmbH (Austria). Participating countries: Austria, Germany
- IPRP Improving Porcine Reproductive Performance: molecular markers (refrigerated semen) and post-CAI with frozen/thawed sperm - Coordinator: IMPORT-VET S.A (Spain). Participating countries: Catalonia (Spain), France
- 8. OLNORME II Nutraceuticals and pharmaceuticals derived from plant extracts as therapeutic approaches to inflammatory diseases. Coordinator: Genfit SA (France). Participating countries: France, Germany
- TREN Fluorescent molecular beacons for quantitative in situ detection of specific protein targets. Coordinator: Trenzyme GmbH (Germany). Participating countries: Germany, Italy
- ALDORIGHT Efficient production of novel chiral actives through improved industrial aldolases. Coordinator: BIOGLANE, S.L.N.E. (Spain). Participating countries: Catalonia (Spain), Germany
- ANEUDIA Development of novel noninvasive diagnostics for aneurysms. Coordinator: Skyline Diagnostics B.V (The Netherlands). Participating countries: France, Germany, The Netherlands
- 12. NCML-Project New compact medical laser for use with ELANA technique. Coordinator: Elana bv (The Netherlands). Participating countries: France, Germany, The Netherlands
- 13. NVACTB Novel Vaccination Strategies for Tuberculosis. Coordinator: FIT Biotech Oy (Finland). Participating countries: Finland, The Netherlands
- 14. IRIS Integrated computational environment for high throughput RNA interference screening. Coordinator:

INTEGROMICS, S.L. (Spain). Participating countries: Germany, Madrid (Spain)

- 15. STEMEXP Development of innovative strategies for ex-vivo expansion of human haematopoietic stem cells. Coordinator: Ca.Re.Bios s.r.l. (Italy). Participating countries: Germany, Italy
- ArgiFun Discovery of new inhibitors of arginyl-tRNA synthetases for antifungal treatment. Coordinator: Omnia Molecular, S.L. Spain). Participating countries: Basque Country (Spain), Catalonia (Spain), The Netherlands
- 17. SUENO Research on novel bio-signal technologies & methodologies for unsupervised, automatic extraction of electrophysiological biomarkers. Coordinator: Starlab Barcelona SL (Spain). Participating countries: Austria, Catalonia (Spain)

### Third call 2011

The following countries/regions participated in the ETB call (2011): Austria, Belgium (Flanders, Wallonia), Finland, Germany, Israel, Italy, Spain (Basque Country, Catalonia, Navarra) and the Netherlands.

There were 42 proposals submitted and 15 selected for funding. The projects amounted to a total of EUR 27 million project costs of which EUR 15 million were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- EES Development of a novel extremolytebased eye spray for patients suffering from various ophthalmic conditions. Coordinator: Bitop AG (Germany). Participating countries: Germany, The Netherlands
- COLCAB Production of novel diagnostic and therapeutic antibodies directed against colon cancer stem cells. Coordinator: EXIRIS srl (Italy). Participating countries: Germany, Italy
- 3. ERIC Innovative 2D and 3D in vitro models for the pharmacotoxicological analysis of

estrogens.. Coordinator: Biodiversity Spa (Italy). Participating countries: Finland, Italy

- BERTA BERberine new derivatives as anti-Tumour Agents for cancer therapy
   Coordinator: Naxospharma srl (Italy). Participating countries: Catalonia (Spain), Italy
- 5. NEUROTOX in vitro alternative assay for neurotoxicity evaluation and prediction. Coordinator: ETT S.r.l. (Italy). Participating countries: Germany, Italy
- 6. Surfest-Biotech -BIOTECHNOLOGICAL PROCESSES FROM FATS AND OILS DEVELOPMENT OF NOVEL ENVIRONMENTALLY ADDED-VALUE SURFACTANTS AND ESTERS. Coordinator: Industrias Suescun SAU (Spain). Participating countries: Germany, Navarra (Spain)
- LAURA BIOCONJUGATES for Oncology. Coordinator: ADRIACELL SpA (Italy). Participating countries: Austria, Italy
- FORECAST Development of an integrated strategy for a high throughput process development platform on a micro scale format. Coordinator: m2p-labs GmbH (Germany). Participating countries: Catalonia (Spain), Flanders (Belgium), Germany, Wallonia (Belgium)
- 9. ZOOBIOTECH APPLICATION OF GREENBIOTECH FORMULATION BASED ON EXTRACTS DERIVING FROM VEGETABLE MERISTEMATIC CELL CULTURES. Coordinator: I.R.B. Istituto di ricerche biotecnologiche S.p.A (Italy). Participating countries: Catalonia (Spain), Italy
- CHAT Development of a diagnostic test to assess Chlamydia trachomatisassociated tubal damage in subfertile women. Coordinator: Microbiome Ltd. (The Netherlands). Participating countries: Basque Country (Spain), The Netherlands
- Small Mol Act Small molecule approach for angiostatic cancer therapy. Coordinator: SomantiX BV (The Netherlands). Participating countries: Germany, The Netherlands
- 12. AD-CBB-Alzheimer's Disease Drug Discovery. Coordinator: Crossbeta Biosciences BV (The Netherlands). Participating countries: Germany, The Netherlands

- FAST-SEQ Focused Analysis of Solid Tumor material by single molecule SEQuencing. Coordinator: ServiceXS B.V. (The Netherlands). Participating countries: Germany, The Netherlands
- 14. ELANA KEYHOLE ELANA Technique application onto human coronary arteries. Coordinator: Elana bv (The Netherlands). Participating countries: Germany, The Netherlands
- 15. NOBITAN Novel biofocused targeting of nucleoside analogues with cyclic RGD peptides as enhanced anticancer therapy. Coordinator: Institut Univ. de Ciència i Tecnologia, S.A. (Spain). Participating countries: Catalonia (Spain), Germany

#### Fourth call 2012

The following countries/regions participated in the ETB call (2012): Austria, Belgium (Flanders, Wallonia), Finland, France (Alsace), Germany, Italy, Spain (Andalusia, Basque Country, Catalonia, Navarra).

There were 21 proposals submitted and nine selected for funding. The projects amounted to a total of EUR 14 million project costs of which nine million euros were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- DIACAN-NANO New cancer diagnostic assays based on immunocapture / characterization of tumor-derived exosomes using nanotech solutions. Coordinator: Exosomics Siena SpA (Italy). Participating countries: Italy, Navarra (Spain)
- Re.Mark.RareDis Advanced chemical technologies and predictive experimental models leading to new treatments against rare diseases. Coordinator: Minoryx Therapeutics S.L. (Spain). Participating countries: Catalonia (Spain), Italy
- 3. NeuroSafe Development of a human integrated in vitro Neurotoxicity Safety Platform (NeuroSafe). Coordinator: Axxam

SpA (Italy). Participating countries: Italy, Germany

- 4. ALLERGOTYPE DEVELOPMENT AND VALIDATION OF DNA BASED PROTOTYPES FOR DETECTION OF ALLERGENIC SPECIES. Coordinator: Lifelinelab (Italy). Participating countries: Italy, Germany
- Serpin Novel serpin for the treatment of hepatitis C. Coordinator: Applied research using Omic Sciences (Spain). Participating countries: Catalonia (Spain), Finland
- OPTISOLV Development, optimization and scale-up of biological solvent production. Coordinator: ARGUS Umweltbiotechnologie GmbH (Germany). Participating countries: Germany, Italy
- PHARMA-FUN New Waste Water Treatment Unit for PPCPs removal. Coordinator: IDIFARMA (Spain). Participating countries: Navarra (Spain), Wallonia (Belgium)
- 8. EIFFEL Early invasive fungal infection detection with Terahertz sensor systems. Coordinator: ANTERAL (Spain). Participating countries: Navarra (Spain), Germany
- WispATDrug Lead optimization for innovative, orally bioavailable wide spectrum antitumor drugs. Coordinator: Argon Pharma (Spain). Participating countries: Catalonia (Spain), Germany, Finland
- BIMoT Advanced biomaterial testing by continuous monitoring of tissue/implant interactions using an impl. microsensor device. Coordinator: PROTiP (France). Participating countries: Alsace (France), Germany
- ASCaffolds Autologous Stem Cell Enriched Scaffolds for Soft Tissue Regeneration. Coordinator: MBP (Germany). Participating countries: Germany, Flanders (Belgium)

#### Fifth call 2013

The following countries/regions participated in the ETB call (2013): Austria, Belgium (Flanders, Wallonia), Finland, France (Alsace), Germany, Russia and Spain (Andalusia, Basque Country, Catalonia, Navarra). There were 30 proposals submitted and 10 selected for funding. The projects amounted to a total of EUR 18 million project costs of which 11 million euros were requested from public funds (the companies had to co-fund the projects up to 50% from their own resources).

Projects funded:

- 1. PREDICSEED an innovative kit for PREDICting SEED quality. Coordinator: Antibody BCN S.L. (Spain). Participating countries: Catalonia (Spain), Germany
- CryNaPhot Crystalline Nanoparticles from Chlorin Derivatives – a New Concept in Biophotonics for Cancer Diagnosis and Therapy. Coordinator: Biolitec Research GmbH (Germany). Participating countries: Germany, Russia
- Heat DDeliver Heat and and Drug Delivery nanosystem with active tumor targeting features. Coordinator: IDIFARMA DESARROLLO FARMACEUTICO, S.L.(Spain). Participating countries: Navarra (Spain), Basque Country (Spain), Germany
- LUNGCADIA An integrated knowledge framework for curation and highthroughput clinical variant interpretation in somatic oncology. Coordinator: BIOBASE GmbH (Germany). Participating countries: Germany, Flanders (Belgium)
- 5. BIOSAFOOD Lactic acid bacteria and other microorganisms antagonists as preservatives in minimally processed fruit and vegetables. Coordinator: DOMCA (Spain). Participating countries: Andalusia (Spain), Russia
- 6. CardioSave Development of a novel early stage prognostic test for clinical outcome

in acute myocardial infarction (AMI) patients. Coordinator: Firalis SAS (France). Participating countries: Alsace (France), Germany

- HTScreenTECH Biotechnological platform for "in silico" and "in vitro" High Throughput Screening of Muscarinic Receptors ligands. Coordinator: IMG PHARMA BIOTECH (Spain). Participating countries: Basque Country (Spain), Catalonia (Spain), Wallonia (Belgium)
- 8. Plurivax Development of a VLP based vaccine platform and stable formulation especially suited for veterinary applications. Coordinator: ARTES Biotechnology GmbH (Germany). Participating countries: Germany, Flanders (Belgium)
- PEPEX Novel eukaryotic expression systems for food enzymes. Coordinator: TRIS (Russia). Participating countries: Russia, Germany
- 10. HYGIENZYM Biobased Sanitizing Detergents for Domestic and Industrial Laundry Applications. Coordinator: Proquimia S.A. (Spain). Participating countries: Catalonia (Spain), Germany

#### Sixth call 2014

The following countries/regions participate in the ETB call (2014): Austria, Belgium (Flanders, Wallonia), Finland, France (Alsace), Germany, Italy, Russia and Spain (Andalusia, Basque Country).

The call has been launched in 1st October 2013, deadline for proposal submission is January 31st, 2014.





# **EUPHRESCO II**

### **European Phytosanitary Research** Coordination II



## **Objective**

The Community Plant Health Regime (CPHR) aims to prevent the introduction, establishment and spread of regulated and guarantine plant pests. These pests pose increasing risks to European agriculture, horticulture, forestry and the environment. This is due to increased globalisation of trade (volume and diversity), but is exacerbated by climate change and EU expansion (increased pathways). In comparison, resources for national plant health inspection services, science programmes and research are declining. For this reason, the EUPHRESCO Phytosanitary ERA-NET was established in 2006, with the full support of the EU Council Working Party of Chief Officers of Plant Health Services. It aimed to better coordinate national. transnational and FU-funded research in direct support of the CPHR (EU policy, inspection services and science capability).

The EUPHRESCO-I Project ended in 2010; this new EUPHRESCO-II project will deepen and enlarge the previously successful cooperation between research programmes. EUPHRESCO-II will:

- · Strengthen the basis for, and result in, a self-sustainable, long-term, durable network:
- Deepen the cooperation through continued transnational research that optimises limited resources, supports other plant health initiatives and coordination mechanisms, and further develops a culture of collaboration;

#### 

PROJECT DETAILS		
Period	From To	2011-01-01 2014-03-31
Project reference	26650	)5
Programme acronym	FP7-K	BBE
Topic identifier	KBBE.	2010.1.2-06
Title	betwe	ened and enlarged cooperation en phytosanitary (statutory plant ı) research programmes - ERA-NET
Contract type	Coordi	nation (or networking) actions
Total cost EU contribution		90 732 99 997
Number of participants	31	
Coordinator	Rural	tment for Environment, Food & Affairs, Food and Environment rch Agency (DEFRA-FERA), United om
Contact person		nman; T +44 (0)1904 455346; E nman@defra.gsi.gov.uk
Website	WWW.6	euphresco.org
Participants		
AT Federal Ministry of Agricu	lture For	estry Environment and Water

- riculture, Forestry, Environment and Water AT Management BMLFUW
- AT Austrian Agency for Health and Food Safety AGES
- BF Federal Public Service Health, Food Chain Safety and Environment FPS
- RF Walloon Anricultural Research Centre CRA-W
- BF Institute for Agricultural and Fisheries Research ILVO
- BG Anriculture Academy AA СН
- Federal Office for Agriculture FOAG Ministry of Agriculture of the Czech Republic MZE
- DF Julius Kuhn Institute JKI
- DE Federal Agency of Agriculture and Food BLE
- DK Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI
- EE Ministry of Agriculture, Research and Development Department MARDD
- National Institute for Agriculture, Technology and Food Research INIA ES
- Ministry of Agriculture and Forestry MMM FL
- FR French National Institute for Agricultural Research INRA
- Ministry of Agriculture and Eishery, General Food Directorate MAP-DGAL FR GR Benaki Phytopathological Institute BPI
- IF Department of Agriculture, Food and the Marine DAFM IT Ministry of Agricultural, Food and Forestry Policies MiPAAF
- IT Anricultural Research Council CRA
- LT Ministry of Agriculture of the Republic of Lithuania ZUM
- NI Netherlands Plant Protection Service NPPS
- NI Ministry of Economic Affairs E7
- PT National Institution of Agricultural Research and Veterinary INIAV
- RU All-Russian Plant Quarantine Centre EGU VNIIKR SI Ministry of Agriculture, Forestry and Food MAFF
- TR
- Ministry of Agriculture and Rural Affairs, General Directorate of Agricultural Research MARA/GDAR Institute of Plant Protection of National Academy of Agrarian Sciences of UΔ
- Ukraine IPP NAAS UK Department for Environment, Food & Rural Affairs, Food and Environment
- Research Agency DEFRA-FERA ЦК Scottish Government, Science and Advice for Scottish Agriculture SASA
- UK Forestry Commissioners Research Agency FC

- Deepen the cooperation by improving processes and tools and reducing barriers;
- Enlarging the network (31 partners, plus 14 observers) to increase its critical mass, address more regional or sector-based (e.g. forestry plant health) issues and increase opportunities for international cooperation with non-European countries that are either the source of quarantine pests or share similar pest problems.

Overall, EUPHRESCO II will enhance the European Research Area that supports the CPHR. It will directly support EU policy, operations and science capability by providing rapid and customised answers to challenges caused by quarantine plant pests.

### Consortium

The EUPHRESCO Network has expanded from 23 partners in 17 countries (2006-2010) to 31 partners in 22 countries with 12 European observer countries and two international observers. Its partners are leading organisations involved with funding phytosanitary research in Europe. Observers are: Ministry of Agriculture, Plant Health Department EVPM (Estonia), Ministry of Rural Development and Food, Department of Phytosanitary Control (Greece), Ministry of Agriculture and Rural Development, Department for Plant Protection and Soil Conservation (Hungary), Ministry of Agriculture ZUM (Lithuania), Plant Health Department, Ministry of Rural Affairs and the Environment (Malta). Direccao Geral de Porteccao das Culturas DGPC (Portugal).

## Mapping and scoping activities

EUPHRESCO-I undertook a comprehensive mapping and analysis, available from the EUPHRESCO website. There is no systematic mapping and analysis undertaken in EUPHRESCO-II, other than annual updating of national research programme's funding levels and research projects (current and planned). The latter is specifically intended to help inform the annual rounds of topic identification within EUPHRESCO-II, from which transnational research projects emerge. EUPHRESCO-II aims to undertake three annual rounds of topic identification. These have been completed for 2011 and 2012.

# Joint calls

#### First call 2011

In 2011, there were no competitive joint calls, but 10 individual transnational research projects were directly commissioned via a non-competitive funding mechanism.

Projects funded:

- CEP Current and emerging Phytophthoras

   research supporting risk assessment and risk management. Coordinator: FERA (United Kingdom). Participating countries: Belgium, Estonia, Ireland, Italy, Norway, Portugal, Spain, The Netherlands.
- 2. PCN Use of novel molecular methods to understand population diversity and its implications on disease management through the use of resistant potato varieties. Coordinator: SASA (United Kingdom). Participating countries: Belgium, Poland, The Netherlands, Ukraine.
- MELOID Development and validation of innovative diagnostic tools for identification of Meloidogyne enterolobii in support of integrated plant protection strategies. Coordinator: Agroscope (Switzerland). Participating countries: Belgium, Germany, France, Italy, The Netherlands, Turkey, United Kingdom.
- SENDO Diagnostic methods for Synchytrium endobioticum, especially for pathotype identification. Coordinator: NVWA (The Netherlands). Participating countries: Belgium, Bulgaria, Germany, Ireland, Latvia, Russia, Ukraine, United Kingdom.
- DEP2 Assessment of the risk posed by ornamentals and tomato seeds infected by Pospiviroids to tomato crops and evaluation of Pospiviroid detection protocols for seed testing in tomato. Coordinator: Walloon

Agricultural Research Centre (CRA-W) (Belgium). Participating countries: Austria, Estonia, France, Italy, Latvia, Slovenia.

- 6. PHYLIB Epidemiology and diagnosis of potato phytoplasmas and Candidatus Liberibacter solanacearum and their contribution to risk management in potato and other crops. Coordinator: SASA (United Kingdom). Participating countries: Belgium, Canada, France, Hungary, Spain, Turkey, The Netherlands
- GRAFDEPI Epidemiological studies on reservoir hosts and potential vectors of Grapevine flavescence dorée (GFD) and validation of different diagnostic procedures for GFD. Coordinator: Agricultural Research Council - Plant Pathology Research Centre (CRA-PAV) (Italy). Participating countries: Austria, Belgium, Portugal, Serbia, Slovenia, Spain, Switzerland, Turkey.
- 8. APOPHYT Evaluation of factors determining distribution, impact, detection and characterisation of apple proliferation and other fruit tree phytoplasmoses in the European Community. Coordinator: Agroscope (Switzerland). Participating

countries: Austria, Belgium, Czech Republic, Germany, Italy, Norway.

- PHYTFIRE Phytosanitary diagnostic, onsite detection and epidemiology tools for fire blight. Coordinator: Agroscope (Switzerland). Participating countries: Austria, Estonia, Germany, Latvia, Portugal, Russia, Spain, Turkey, The Netherlands, Ukraine.
- DROSKII Damage potential of Drosophila suzukii and development of phytosanitary measures. Coordinator: Research Council for Agriculture – Research Centre for Agrobiology and Pedology (CRA – ABP) (Italy). Participating countries: Austria, Germany, Switzerland, United Kingdom.

#### Second call 2012

In 2012, 17 topics have been identified, which will be taken forward by individual funding consortia from EUPHRESCO-II partners. Of these topics, two will be taken forward competitively (one via a virtual common pot call and one by a real common pot call); 15 topics will be directly commissioned projects.





# **FORESTERRA**

Enhancing FOrest RESearch in the MediTERRAnean through improved coordination and integration



# **Objective**

Forest research in the Mediterranean region is currently handicapped by its fragmentation, its limited means, and occasional outdating and isolation. In addition, the low benefits that Mediterranean forests provide to forestbased industries - compared to other European forests - make it difficult to attract interest and funds from the private sector. For this reason, new ways to overcome this situation must be implemented through research partnerships, networking, capacity building, higher education programmes, knowledge transfer and lifelong learning. Such activities should take advantage of existing initiatives like the Forest Based Sector Technology Platform (FTP), the Mediterranean Regional Office of the European Forest Institute (EFIMED) and the Mediterranean Forest Research Agenda (MFRA) developed jointly by the FTP and FFIMFD

Mediterranean forest ecosystems provide multiple goods and services that are crucial to the socioeconomic development of the Mediterranean regions rural areas as well as to the welfare of its urban populations. Advancing scientific knowledge and fostering innovation is essential, then, to ensure the sustainable management of Mediterranean forests and to build a knowledge-based bioeconomy in the region.

The countries of the Mediterranean basin, as well as those of other Mediterranean Climate Areas, face similar challenges regarding the

	PROJE	CT DETAILS					
Period		From To	2012-01-01 2015-12-31				
	Proje	ct reference	291832				
	Progr acror	amme Iym	FP7-KE	FP7-KBBE			
	Торіс	identifier	KBBE.2	KBBE.2011.1.2-08			
Title		Forest Research in the Mediterranean Region ERA-NET - Mandatory ICPC (Mediterranean partner countries)					
	Contr	act type	Coordin	nation (or Networking) Action			
	Total EU co	cost Intribution		57 435 97 795			
Number of participants			16	16			
Coordinator		Ministry of Economy and Competitiveness MINECO, Spain					
Contact person		David González Martínez (Coordination) Victoria Sanz (Project management) T + 34916037723 E foresterra@mineco.es					
Website		www.fe	presterra.eu				
	Partio	ipants					
BG Executive Forest			try Agen	cy EFA			
	DZ	Ministry of Agric	ulture a	nd Rural Development INRF			
	ES	Ministry of Econ	iomy an	my and Competitiveness MINECO			
	FR	French National Institute for Agricultural Research INRA					
	FR	Ministry of Agriculture, Food and Forestry MAAF					
	GR	Ministry of Environment Energy and Climate Change MEEC					
	HR	Ministry of Science, Education and Sports MZOS					
	IT	Agricultural Research Council CRA					
	IT	, 2		Food and Forestry Policies MiPAAF			
	MA	High Commission for Water and Forests and the Fight Against Desertification HCEFLCD					
	PT	Foundation for 9	Science	and Technology FCT			
	SI	, 2		Forestry and Food MAFF			
	TR	Ministry of Forest and Water Affairs, Southwest Anatolia Fores Research Institute SAFRI					
	TN	Institution for Agricultural Research and Higher Education					

- ΤN Institution for Agricultural Research and Higher Education IRESA
- INT European Forest Institute EFIMED
- Mediterranean Agronomic Institute of Zaragoza / International Centre for Advanced Mediterranean Agronomic Studies IAMZ-INT CIHEAM

sustainability of forest ecosystems and the delivery of crucial goods and services that they provide in a context of rapid global changes. Therefore, it is of critical importance to reinforce scientific cooperation on Mediterranean forests through a transnational EU-Mediterranean ERA-NET, which also builds new transcontinental cooperation among Mediterranean Climate Areas (California, Australia, South Africa, Chile) in order to reduce fragmentation and maximise the impact of research activities.

### Consortium

FORESTERRA has 16 partners from 12 countries.

### Mapping and scoping activities

In the framework of FORESTERRA, it has been developed an activity of mapping and characterizing the existing forestry funding programmes and forestry research capacities of the countries participating in the consortium, which brought together 12 Mediterranean countries.

The mapping survey was performed using two procedures: i) dedicated questionnaires addressed to funding bodies and scientific organisations and ii) ad-hoc poster session aimed at exchanging information and validating the preliminary results, attended by delegates from participating countries.

Funding, research capacities and research lines were characterized in order to identify complementarities, overlaps, gaps, strengths and weaknesses in forest research in order to provide strategic guidance to the FORESTERRA network for future cooperation and forest research coordination activities.

### Joint calls

A call for proposals is planned for 2014 including large collaborative projects and networking actions.





# **ICT-AGRI**

**Coordination of ICT and Robotics** in Agriculture and Related **Environmental Issues** 



# **Objective**

This horizontal ERA-NET proposal is cutting across several themes in the Cooperation Programme: Theme 2 (Food, Agriculture and Fisheries, and Biotechnology), Theme 3 (Information and Communication Technologies) and Theme 6 (Environment including Climate Change). The overall strategic objective - also beyond the time frame of the ERA-NET proposal - is a contribution to increase quality, effectiveness and efficiency of national research programmes within Information and Communication Technology (ICT) and Robotics for a competitive, sustainable and environmentally friendly agriculture. The goal of the ERA-NET is to enable the creation of a European-facing open network of mutually accessible and complementary research programmes which are able to respond to the rapidly developing needs of common European policy drivers. In the pursuit of this goal the ERA-NET will review existing research and future needs, develop instruments and procedures for transnational funding activities, create a strategic transnational research agenda and programme and establish linkages to related networks and disciplines. The ERA-NET will work closely together with the Collaborative Working Group in this research area. The aim is to support the application of ICT and Robotics in the creation of environmentally efficient agro-technologies as a solution to an efficient implementation of new EU policies on mitigation and adaptation of climate changes, environmental regulations and legislation, traceability, food safety, agroenvironmental and rural developments.

#### PROJECT DETAILS

Perio	bd	From To	2009-05-01 2014-03-31				
Follow-on ERA-NET		ICT-AC	ICT-AGRI-2				
Proje	ect reference	23546	235460				
Prog acro	ramme nym	FP7-C	FP7-COORDINATION				
Торі	c identifier	ERANE	ERANET.2008.1				
Title		ERA-N	ERA-NET proposals of a horizontal nature				
Cont	ract type	Coordi	Coordination (or Networking) Action				
	l cost ontribution		73 772 37 008				
	ber of icipants	19					
Coor	dinator		Ministry of Food, Agriculture and Fisheries - Danish Agrifish Agency DAFA, Denmark				
Contact person		T +45	Niels Gøtke T +45 7231 8396 E nigoe@fi.dk				
Website		www.i	ct-agri.eu				
Parti	icipants						
BE	Ministry of Agriculture of the Flemish Community - Institute for Agricultural and Fisheries Research EV-ILV						
CH	Swiss Federal Office for Agriculture FOAG						
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV						
DE	J ,	2	ulture and Food BLE				
DK	Agency for Scier	nce, Tecl	nnology and Innovation – Danish hnology and Innovation DASTI				
DK	,		nvironment DEPA				
DK	Ministry of Food, Agriculture and Fisheries - Danish Agrifish Agency DAFA						
ES	Regional Development Agency of Murcia INFO MURCIA						
FI	Ministry of Agriculture and Forestry MMM						
FR	National Research Institute of Science and Technology for Environment and Agriculture IRSTEA						
GR	Greek Research and Technology Network GRNET						
IE	Agriculture and Food Development Authority TEAGASC						
IL	Ministry of Agriculture and Rural Development MOARD						

- Ministry of Agricultural, Food and Forestry Policies MiPAAF IT
- IV Latvian Academy of Sciences LAS
- MT Council for Science & Technology MCST
- NL Netherlands Organisation for Applied Scientific Research TNO
- TR Ministry of Agricultural and Rural Affairs - General Directorate of Agricultural Research GDAR
- Scientific and Technological Research Council of Turkey TR TUBITAK

The ERA-NET will contribute significantly to the European Research Area by improving the coherence and coordination of ICT-AGRI research programmes across Europe and the development of joint research calls at an early date. It will also bring added value and leverage to the extensive research effort undertaken by Member States' own initiatives ensuring that the research undertaken is the best and also gives the best value for money.

### Consortium

The ICT-AGRI consortium consists of 19 organisations from 15 countries. Furthermore there are 11 observer organisations: Leibniz-Institute for Agricultural Engineering Potsdam-Bornim ATB (Germany), National Institute for Agricultural Research INRA DARESE (France), Food and Agriculture Organisation of the United Nations FAO (Italy), Region of Lombardy DG Industry, Handicraft, Building and Cooperation (Italy), Cities on Internet Association COIA (Poland), Romanian Academy of Agricultural and Forestry Sciences ASAS (Romania), Soil Science and Conservation Research Institute SSCRI (Slovakia), Institute of Agricultural Technology of Castilla y Leon ITACyL (Spain), LEITAT Technological Center LEITAT (Spain), Swedish Institute of Agricultural and Environmental Engineering JTI (Sweden), Federal Department for Economic Affairs DEA (Switzerland), Agricultural Research Institute ARI (Cyprus), Wageningen UR (University and Research Centre) WUR (The Netherlands). Also there are three associated partners: Department for Environment, Food and Rural Affairs DEFRA (United Kingdom), The French National Research Agency ANR (France), Department of Agriculture, Food and the Marine DAFM (Ireland).

### Mapping and scoping activities

During the lifetime of ICT-AGRI the following was achieved in the area of mapping and scoping:

A database tool, now known as the Meta Knowledge Base (MKB), was developed. This database has been invaluable in regard to the ERA-NET mapping activities as well as to the activities connected with the calls. The MKB, which is open source, has already been adopted by several other ERA-NETs. To learn more about the MKB please follow this link: http://db-ictagri.eu/usr/Home.php

Based on basic information about stakeholders and facilities retrieved from the MKB and contributions from the ICT-AGRI partners a Country Report was developed. The Country Report includes information on the funding structure, research programmes and research institutes in 15 countries involved in the ERA-NET ICT-AGRI. The Country Report was printed in 2010.

A Strategic Research Agenda (SRA) has been developed. The SRA has:

- identified future challenges for European agriculture;
- distilled objectives and solution domains based on ICT and robotic technologies as they apply in primary agriculture;
- determined further research and innovation (R&I) requirements;
- created a vision for ICT and robotics in agriculture; and
- developed recommendations for SRA implementation.

The SRA is intended to serve as a reference for future planning of R&I at both European and national level. The SRA was printed in January 2013 and is available from the website www. ict-agri.eu.

### Joint calls

#### First call 2010

The first ICT-AGRI call had the title: "Integrated ICT and automation for sustainable agricultural production".

The aim of this joint call was to enable joint transnational research projects based on complementarities and sharing of expertise within ICT and Robotics in Agriculture. Projects were expected to apply a systems approach addressing farm level integration of information technology, communication technology, automation and robotics. Projects had to have a clear European added value by being carried out on a transnational level. Applicants were invited to submit proposals in one of two categories:

- A broad approach by combining existing or new software and hardware products to demonstrate a system meeting important challenges within a specific application area
- A narrow approach by focusing on specific elements of vital importance for the functioning of integrated systems.

The first ICT-AGRI call had a budget of EUR 2.5 million. The call was launched: 15 April 2010. The following countries contributed to the call: Denmark, Belgium, Finland, France, Germany, Greece, Israel, Italy, Latvia, Switzerland, Turkey, The Netherlands, Ireland, Spain. In total 44 proposals were submitted, of which seven were funded.

Projects funded:

- 1. STRATOS Open System for TRAcTOrs' autonomouS Operations. Coordinator: UNIMOR, University of Modena e Reggio (Italy). Participating countries: Latvia, Switzerland, Italy, Israel, Belgium
- ROBOFARM Integrated robotic and software platform as a support system for farm level business decisions. Coordinator: DEIAGR, Alma Mater Studiorum-University of Bologna - Dept. of Agricultural Economics and Engineering (Italy). Participating countries: Italy, Denmark, Greece, Turkey
- 3. PIGWISE Optimizing performance and welfare of fattening pigs using High Frequent Radio Frequency Identification (HF RFID) and synergistic control on individual level. Coordinator: GAUG, Georg-August-Universität Göttingen (Germany). Participating countries: Germany, Denmark, Italy, Belgium
- 4. Predictor Preparing for the EU Soil Framework Directive by optimal use of Information and Communication Technology across Europe. Coordinator:

Denmark-AU, Aarhus University (Denmark). Participating countries: Denmark, Switzerland, Finland, Germany, Netherlands

- 5. GeoWebAgri Geospatial ICT infrastructure for agricultural machines and FMIS in planning and operation of precision farming. Coordinator: Aalto, Aalto-korkeakoulus (operating as Aalto University) (Finland). Participating countries: Finland, Germany, Denmark
- QUAD-AV Ambient Awareness for Autonomous Agricultural Vehicles. Coordinator: Danish Technological Institute (Denmark). Participating countries: Denmark, France, Germany, Italy
- 3D-Mosaic Advanced Monitoring of Tree Crops for Optimized Management - How to Cope With Variability in Soil and Plant Properties? Coordinator: ATB, Leibniz Institute for Agricultural Engineering PotsdamBornim (ATB) (Germany). Participating countries: Germany, Israel, Denmark, Turkey, Italy, Switzerland, Spain

#### Second call 2012

The ICT-AGRI 2nd Call aimed at utilizing ICT and automation in primary agriculture for sustainable use of natural resources, reduction of agriculture's environmental footprint, mitigation of climate change while securing farm economy and good working conditions, food supply, guality and security, and animal welfare. The call focus was on innovations in the use of ICT and automation in primary agriculture. Projects were expected to develop and demonstrate feasible solutions with proven effects towards a greener European agriculture. Projects could include a combination of Research and Technological Development (RTD) and Demonstration. Project consortia were expected to be formed by public research organisations, public services as well as commercial enterprises across Europe.

Topics were:

- Open Farm Management Systems
- Enabling farming based on ICT and robotic machines
- Transfer of Knowledge and Solutions

- Interactions between farmers and public services based on ICT and automation
- Retrieval of knowledge from agriculture based on empirical data in farm management systems
- Applicants were invited to submit proposals to a least one topic, but were allowed to apply to several topics.

The second ICT-AGRI call had a budget of EUR 6.2 million. The call was launched: March 23<sup>rd</sup> 2012. The following countries contributed to the call: Denmark, Belgium, Finland, France, Germany, Greece, Israel, Italy, Latvia, Switzerland, Turkey, The Netherlands, Ireland, Spain, United Kingdom. In total 29 proposals were submitted, of which eight were funded.

Projects funded:

- ITApic Application of information technologies in Precision Apiculture. Coordinator: Latvian University of Agriculture, Biosystems Group, Faculty of Information technology (Latvia). Participating countries: Latvia, Turkey, Germany, Denmark
- 2. SILF Smart Integrated Livestock Farming: integrating user-centric & ICT-based decision support platforms. Coordinator: Aarhus University, Department of Engineering, ENG (Denmark). Participating countries: Denmark, Greece, Ireland, Belgium, Finland
- USER-PA USability of Environmentally sound and Reliable techniques in Precision Agriculture. Coordinator: Dept. of Sensing, Information and Mechanization Engineering, Institute of Agricultural Engineering, ARO, The Volcani Center (Israel). Participating countries: Israel,

Germany, Turkey, Switzerland, Greece, United Kingdom, Italy, Denmark

- GrassBots User-centric adoption of sustainable farming operation involving ICT and robotics. Participating countries: Case: Grassland harvesting operations for biogas and bio refinery plants. Coordinator: Aarhus University, Department of Engineering, ENG (Denmark). Participating countries: Denmark, United Kingdom, Finland,
- i-LEED Advanced cattle feeding on pasture through innovative pasture management. Coordinator: Bavarian State Research Center for Agriculture, Institute for Agricultural Engineering and Animal Husbandry (Germany). Participating countries: Germany, France, Turkey
- 6. ICTGRAZINGTOOLS Use of ICT tools to capture grass data and optimize grazing management. Coordinator: Teagasc (Ireland). Participating countries: Ireland, United Kingdom, France
- FarmFUSE Fusion of multi-source and multi-sensor information on soil and crop for optimised crop production system. Coordinator: Cranfield University, School of Applied Sciences, Environmental Science and Technology Department, National Soil Resources Institute (United Kingdom). Participating countries: United Kingdom, Greece, Germany, Turkey
- DairyICT ICT in large and small dairy systems. Coordinator: University of Copenhagen, Faculty of Health and Medical Sciences, Department of Veterinary Clinical and Animal Sciences (Denmark). Participating countries: Denmark, Switzerland, United Kingdom, France, Italy, Ireland




# **ICT-AGRI-2**

Information and Communication **Technologies and Robotics for** Sustainable Agriculture

### PROJECT DETAILS

Peri	od	From To	2014-01-01 2017-12-31		
Proj	ect reference	61812	23		
	gramme onym	FP7-K	FP7-KBBE		
Торі	ic identifier	KBBE.	KBBE.2013.1.4-04		
Title	2		Information and Communication Technologies and Robotics for Sustainable Agriculture		
Con	tract type	Coordi	nation (or Networking) Action		
Total cost EU contribution			39 740 97 106		
Number of participants		22			
Coordinator		Innova	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI Denmark		
Contact person			Gøtke 7231 8396 e®fi.dk		
Website		www.i	ct-agri.eu		
Participants					
			f the Flemish Community - Institute for Is Research EV-ILVO		
BE	Agency for Innovation by Science and Technology IWT				
CH	Federal Office for Agriculture FOAG				
DE	Federal Ministry of Food, Agriculture and Consumer Protectio BMELV				
DE	Federal Agency of Agriculture and Food BLE				
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
DK	Ministry of Food, Agriculture and Fisheries - Danish Agrifish Agency DAFA				

- ES Regional Development Agency of Murcia INFO MURCIA
- FS Technological Corporation of Andalusia CTA
- FL Ministry of Agriculture and Forestry MMM
- National Research Institute of Science and Technology for FR Environment and Agriculture IRSTEA
- GR Greek Research and Technology Network GRNET
- Agriculture and Food Development Authority TEAGASC IF
- Ministry of Agriculture and Rural Development MOARD 11
- IT Ministry of Agricultural, Food and Forestry Policies MiPAAF
- 1 T Aleksandras Stulginskis University ASU
- Latvian Academy of Sciences LAS LV
- NI Ministry of Economic Affairs EZ
- NL Netherlands Organisation for Applied Scientific Research TNO
- NL Wageningen UR (University and Research Centre) WUR-DLO
- Ministry of Agricultural and Rural Affairs General Directorate TR of Agricultural Research GDAR
- TR Scientific and Technological Research Council of Turkey TUBITAK
- UK The Secretary of State for Environment, Food and Rural Affairs

### **Objective**

The principal objective of ICT-AGRI-2 is to contribute to the development of an ecoefficient, resource-efficient and competitive agriculture through an enhanced and improved use of ICT and robotics

ICT-AGRI-2 will pursue this objective within the framework of related European initiatives including Horizon 2020, European Innovation Partnership "Agricultural Productivity and Sustainability", Common Agricultural Policy, Technological Platforms. Public-Private Partnerships. Joint Programming Initiatives and ERA-NETs. ICT-AGRI-2 can be seen as an extension, with respect to implementation, to the Joint Programming Initiative FACCE (Agriculture, Food Security and Climate Change).

Equally important is the outreach to the public and private stakeholders engaged in ICT and robotics in agriculture: Research and innovation funding agencies, research and development organisations and enterprises, advisory and extension services and other providers of ICT to farmers, public services in environmental and agricultural administration, SMEs in rural areas, farmers, food chains, agricultural supply chains and consumers. The use of ICT and robotics in internal farm operations and in external farm business relations is growing fast, and compatible systems are becoming increasingly critical for achieving the full potential of the technology.

The present proposal is based on the on-going ERA-NET ICT-AGRI (Coordination of ICT and Robotics in Agriculture and Related Environmental Issues). Nearly all participants continue in ICT-AGRI-2 and new participants strengthen the representation of important agricultural countries. The results, experience, tools and goodwill achieved in ICT-AGRI are thus available for ICT-AGRI-2.

A significant achievement of the first ICT-AGRI is the Strategic Research Agenda published in December 2012. The SRA identifies research and innovation requirements for ICT and robotics in agriculture and provides recommendations for the implementation of the SRA. Similar recommendations appears in the Strategic Research Agenda from the FP7 project agriXchange. A major goal for ICT-AGRI-2 is to facilitate the implementation of the SRA through appropriately structured mapping and analysis of on-going research and innovation followed by application of transnational joint calls and other coordination actions on topics of mutual interests.

ICT-AGRI-2 will, through mapping and consultation, maintain extensive relations with stakeholders representing the complete chain from research to application. It will promote transnational collaboration and seek critical mass by inviting national research and innovation programmes (including publicprivate partnerships) to participate in joint calls. ICT-AGRI will also mobilise expertise from SMEs through network activities. ICT-AGRI-2 will collaborate with other ERA-NETs and the JPIs in order to share good practise and, where appropriate, conduct common joint calls.

### Consortium

The ICT-AGRI-2 consortium consists of 23 organisations from 16 countries.

## Mapping and scoping activities

ICT-AGRI-2 will carry out an extensive mapping and analysis of research and innovation needs and opportunities. This will be done in a structured manner on the basis of recommendations in the Strategic Research Agenda. The mapping and analysis will – after consultation with the stakeholders – be delivered in the form of an action plan targeted for implementing joint calls. It is also expected that this mapping and analysis will be highly relevant for national and European research and innovation programmes.

### Joint calls

The development of actions plans and transnational joint calls will be repeated three times in an annual cycle. The timing of the cycle is planned so that an annual consultation workshop with stakeholders will be held at a relevant conference. The annual announcement of calls will happen at the end of the year.





# PreSto GMO ERA-NET

Preparatory steps towards a GMO research ERA-NET

### PROJECT DETAILS

Period	i	From To	2013-09-01 2015-08-31	
Projo	t reference	61273		
-		FP7-KF		
acron	amme ym	IF7-NL	JDL	
Торіс	identifier	KBBE.2	013.3.5-02	
Title		Prepara ERA-NE	atory steps towards a GMO research ET - PreSto GMO ERA-NET	
Contr	act type	Coordination and Support Action (coordinating action)		
Total EU co	cost ntribution	€ 1 19 € 99	99 110 96 739	
Numb partic	er of ipants	22		
Coord	inator	Jülich F	Research Centre, Germany	
Contact person		Stefan Rauschen T +49 228 3821 1696 E s.rauschen@fz-juelich.de		
Websi	te	not ava	ailable yet	
Partic	ipants			
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW			
AT	University of Klagenfurt UNIKLU			
BG	Agrobioinstitute ABI			
CH	Federal Department of Economic Affairs, Education and Research EAER			
CZ	The Crop Resear	ch Instit	ute CRI/VURV	
DE	Forschungszentri	um Jülio	th GmbH FZJ	
DE	Federal Ministry	of Educ	ation and Research BMBF	
DE	Julius Kühn Institute, Federal Research Centre for Cultivated Plants JKI			
DE	Genius science & communication GmbH GENIUS			
ES	Center for Research in Agricultural Genomics CRAG			
FR	French Agency for Food, Environmental and Occupational Health & Safety ANSES			
FR	The French National Institute for Agricultural Research INRA			
IT	Italian National Agency for New Technologies, Energy and Sustainable Economic Development ENEA			
IT	Università Cattolica del Sacro Cuore UCSC			
IT	University of Parma UNIPR			
NL	Wageningen UR (University & Research centre) WUR			
PL	The Plant Breeding and Acclimatization Institute, National Research Institute IHAR			
SE	The Swedish Res	earch C	ouncil FORMAS	
TR	The Scientific and Technological Research Council of Turkey			

- TR The Scientific and Technological Research Council of Turkey TUBITAK
- UK The Secretary of State for Environment, Food and Rural Affairs FERA/DEFRA
- UK University of Newcastle upon Tyne UNEW
- UK The University of Nottingham UNOTT

### **Objective**

The objective of the PreSto GMO ERA-NET project is to clearly map out the steps needed to create and successfully implement an ERA-NFT that will coordinate transnational research on the effects of genetically modified organisms (GMOs) in the areas of human and animal health, the environment, and techno- economics and societies. The focus of the ERA-NET will be on GMOs intentionally released into the environment and/or used immediately in feed and food applications. PreSto GMO ERA-NET brings together ministries, agencies, and funding bodies from different Members States and the scientific community to jointly prepare a strategic plan and roadmap for the implementation of the ERA-NET. In addition, the ERA-NET will explicitly take into account the wider views of a diversity of stakeholders and end-users (e.g. nongovernmental organisations, industry, farmers). This is intended to strengthen ownership of the ERA-NET among stakeholders in order to encourage participation of different scientific communities in the future joint transnational calls, to enhance collaboration between actors and to increase the accountability of research trajectories and outcomes.

The results of the project will form the basis for a robust ERA-NET proposal. In achieving this the project work will (1) promote the accessibility of existing scientific information to interested stakeholders and end-users, (2) lead to the harmonisation of research requirements and capacity building within Europe, (3) complement international developments, (4) contribute to a more efficient use of research funds internationally and (5) identify how strategic collaboration can be used to respond to these future research and training needs through enhancement of durable partnerships.

### Consortium

The PreSto GMO ERA-NET consortium consists leading European research institutes of and researchers with a longstanding and internationally recognized expertise in the different fields of research on the effects of GMOs (i.e. environmental human and animal health. technical. economic. social) and other relevant issues (e.g. legal, ethical) and Member States' funding bodies, programme owners and managers, and agencies who have successfully devised, organised and run national programmes on the effects of GMOs in different scientific areas or are concerned with these effects in their day-to-day duties and responsibilities. This unique combination of dedicated partners with complementary institutional and scientific backgrounds and experiences will be exceptionally capable of achieving the project objectives. The research institutes and the scientists represented in the consortium combine amongst them longstanding expertise and scientific excellence in a variety of areas relevant for the project, having worked and collaborated in a multitude of relevant EU projects.

The consortium combines relevant expertise and institutional support from 13 European countries, including new Member States (Poland, Czech Republic, Bulgaria), Turkey (as a candidate) and Switzerland as an associated country. The Member States feature those with large agricultural sectors (France, Germany, Poland, Spain, Italy, United Kingdom, Turkey), as well as states with strong forestry (Sweden), and fisheries/aguaculture (United Kingdom) sectors.

# Mapping and scoping activities

Work Package 1 "Mapping research programmes and capacities" will be a collective stock taking exercise that will lead to the identification of complementarities between activities at Member States and international level and of inherent research gaps. Current and anticipated future developments will be analysed in Work Package 2 "Horizon scanning of emerging GM applications". Subsequently, all information is collated in Work Package 3 "Prioritising research needs" developing a prioritisation framework for future research activities in this field. The views of a broad array of stakeholders will be taken into account here, to make sure that the contents of the future joint transnational calls of the ERA-NET will be widely acceptable to the diversity of stakeholders, end-users and potential applicants.



European Commission





European Research Area



### PROJECT DETAILS

Period	From To	2009-10-01 2013-09-30
Project reference	23517	5
Programme acronym	FP7-KE	BBE
Topic identifier	KBBE-2	2008.1.4.10
Title		ture and sustainable development in a evelopment context
Contract type	Coordi	nation (or Networking) Action
Total cost EU contribution	€ 120 € 99	08 730 99 565
Number of participants	23	
Coordinator		National Institute for Agricultural rch INRA, France
Contact person	T+33	Valceschini 6 07 01 51 65 o.valceschini@paris.inra.fr
Website	www.ri	uragri-era.net
Participants		

#### Participants

- AT Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW
- BE Institute for Agricultural and Fisheries Research ILVO
- CH Federal Office for Agriculture FOAG
- CY Ministry of Agriculture, Natural Resources and Environment MOA
- DF Jülich Research Centre JUELICH
- Federal Ministry of Education and Research BMBF DF
- Ministry of Food, Agriculture and Fisheries Danish Food DK Industry Agency DAFA
- FS National Institute for Agriculture, Technology and Food Research INIA
- FR Ministry of Agriculture, Food and Forestry MAAF
- HU Hungarian Academy of Sciences HAS
- HU Institute of Economics Hungarian Academy of Sciences IEHAS
- IF Agriculture and Food Development Authority TEAGASC
- IL Ministry of Agriculture and Rural Development MOARD
- Ministry of Agricultural, Food and Forestry Policies MiPAAF IT LV Latvian Academy of Sciences LAS
- NL Ministry of Economic Affairs EZ
- NL Wageningen UR (University & Research centre) WUR
- Swedish Research Council for Environment, Agricultural SE Sciences and Spatial Planning FORMAS
- Ministry of Higher Education, Science and Technology MHEST SL Ministry of Agricultural and Rural Affairs - General Directorate TR of Agricultural Research GDAR
- LT Ministry of Agriculture of the Republic of Lithuania ZUM
- PL Institute of Pomology and Floriculture IO
- Scottish Government Rural and Environment Science and UK
- Analytical Services Division SG-RESAS

# RURAGRI

### Facing sustainability: New relationships between rural areas and agriculture in Europe



### Objective

RURAGRI aims to improve coordination between on-going and future European, national and regional research programmes dealing with the new relationships between rural areas and agriculture in Europe and the challenge of sustainability. While the challenges and issues are mostly common, and despite of the historical coordination at the EU level for agricultural and rural development policies, research on agriculture and rural development is mostly carried out at a national level and remains fragmented. Research funding bodies (24 partners) from 20 European member states and associated countries have decided to set up an ERA-NET in order to develop a lasting focused network that will identify and open new research fields. They will work towards a common research agenda and coordinated research funding to enhance coordination of research in the field of agriculture and rural development.

Throughout Europe, the strong urban movement leads to increased requirement for improved connectivity between urban and rural areas. The geographic, economic and human dynamics of all European rural areas is increasingly influenced by urban development, i.e. urban or semi-urban economic activities, infrastructures and habitat, patterns of human and material flows, etc. Observing, analysing and characterising how spatial dynamics triggered by urban development are changing agriculture is crucial to understanding the spatial dimension

of sustainable development, within the diverse EU regions and between them at the European scale. The multiple functions expected from a sustainable European agriculture have to cope with these changes.

A European approach will enhance understanding the institutional and governance approaches that will allow addressing these new challenges. In a context of deep modification of agricultural and rural development policies at a European scale, research on such topical issues is crucial to support decision-making processes.

### Consortium

RURAGRI consists of 24 partners from 20 European member states and associated countries.

## Mapping and scoping activities

The mapping exercise of RURAGRI was mainly performed to understand:

- the principle funding mechanisms in the partner countries;
- the core expertise and the strengths of the partners involved in RURAGRI; and
- the main interests in future joint activities and thematic topics of RURAGRI partners.

20 country reports have been elaborated for internal purpose. They are available on the RURAGRI internal Website. In addition, a synthesis report of the mapping has been published in 2011.

### Joint calls

### First call 2012

The first call for applications for transnational research linking agricultural, rural and sustainable development aspects has been launched in September 2012 among 16 countries (deadline of submission of proposals was end of November 2012). The overall objective of

RURAGRI is to achieve a better understanding of the implications of evolving or new interactions between agriculture and other land uses in order to support sustainable development. The changes in spatial processes triggered by urban development point to an urgent need of analysis at the European scale which addresses a set of challenges influencing future development of rural areas in Europe. The current economic crisis puts our societies and rural areas under additional, severe strain and increases the urgency with which these issues need to be confronted. Based on this understanding of rural potential the following three cross cutting issues are identified as core reference to any research in the field of RURAGRI:

### Diversity.

Rural areas in Europe are highly socially, culturally, environmentally and economically diverse. Accepting that rural areas are highly diverse demands that long established, simplistic approaches and viewpoints have to be overcome in order to understand the nature of rural development and to address place-specific challenges and potentials.

### Rural-urban relationships.

Strengthening linkages between urban and rural areas is key to enhance territorial cohesion at EU, national and regional scales. The complex nature and role of linkages in supporting sustainable agricultural and rural development can only be fully understood by considering these within their wider spatial/regional perspective and integrated into networks or circuits of capital, knowledge, material flows and social development.

### Governance.

Innovations in governance are considered to be crucial to enable current and future transition of rural areas in order to achieve balanced regional development. Successfully combining the cross cutting themes with the perspective of spatial differentiation outlined above will require trans-disciplinary research proposals that clearly demonstrate a capacity tackling one or more of the research questions outlined in the next section. Project proposals will have to describe their relevance with regard to these cross-cutting issues, as well as in relation to the spatial differentiation. In this regard the spatial typologies might be used as reference, but any other meaningful spatial classification method will be welcome, if properly argued. Moreover information on the trans-disciplinary research methods proposed will be required.

In addition, it was agreed that all RURAGRI Research projects will integrate at least two of the following three research priorities: Ecosystem Services/Public Goods, Socio-Economic Development, Land Use and Land Management.

There were 33 proposals submitted of which 27 could be included in the scientific valuation. Five proposals of the RURAGRI call were approved to be funded in this ERA-NET.

Projects funded:

1. MULTAGRI - Rural development through governance of multifunctional agricultural land-use. Coordinator: Lund University (Sweden). Participating countries: France, Germany, Sweden, Italy, Austria, Latvia, Ireland, Spain

- TASTE Towards A Smart Rural Europe. Coordinator: AgroParisTech (France). Participating countries: France, Sweden, Italy, Austria
- MERIT Merit Based Income from Sustainable Land Management in Mountain Farming. Coordinator: Umwelt (Germany). Participating countries: France, Austria, Germany, Italy, Switzerland
- TRUSTEE Towards RUral Synergies and Trade-offs between Economic development and Ecosystem services. Coordinator: INRA (France). Participating countries: France, Germany, Sweden, Italy, Austria, Latvia, Ireland, Spain
- RETHINK Rethinking the links between farm modernization, rural development and resilience in a world of increasing demands and finite resources. Coordinator: Frankfurt University (France). Participating countries: France, Germany, Austria, Belgium, Switzerland, Denmark, Spain, Ireland, Israel, Italy, Lithuania, Latvia, Sweden, Turkey





# SEAS-ERA

Towards integrated European marine research strategy and programmes



### PROJECT DETAILS

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Peric	d	From To	2010-05-01 2014-04-30		
Project reference		24955	52		
Prog	ramme nym	FP7-E	FP7-ENVIRONMENT		
Торіо	: identifier	ENV.20	009.2.2.1.2		
Title			ds integrated European marine ch strategy and programmes		
Cont	ract type	Coordi	Coordination (or Networking) Action		
Tota EU c	l cost ontribution		€ 2 398 711 € 1 999 927		
	ber of cipants	21			
Coor	dinator	Minist Spain	ry of Economy and Innovation MINECO,		
Cont	act person	T +34	z Morales-Nin 971610201 riz@imedea.uib-csic.es		
Web	site	WWW.S	ieas-era.eu		
Parti	cipants				
BE	Federal Public P	lanning	Service Science Policy BELSPO		
BG	Ministry of Educ	ation, Yo	outh and Science MEYS		
DE	Jülich Research Centre JUELICH				
ES	Ministry of Economy and Innovation MINECO				
FR	National Agency for Research ANR				
FR	Marine Board - European Science Foundation MB-ESF				
FR	French Research Institute for Exploitation of the Sea IFREMER				
GE	Shota Rustaveli National Science Foundation SRNSF				
GR	General Secretariat for Research and Technology GSRT				
IS	Icelandic Centre for Research RANNIS				
IE	Marine Institute MI				
IT	Ministry of Educ	ation, U	niversity and Research MIUR		
MT	Council for Scier	nce and	Technology MCST		
NL	The Netherlands	s Organi	sation for Scientific Research NWO		
NO	Research Counc	il of Nor	way RCN		
PT	Foundation for S	Science	and Technology FCT		
RO	Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI				
TR	Scientific and Technological Research Council of Turkey TUBITAK				
UA	Kyiv State Center for Scientific, Technical and Economic Information KyivCSTEI				
UK	Natural Environr	nent Re	search Council NERC		
UK	Department for	Environ	ment, Food and Rural Affairs DEFRA		

### **Objective**

SEAS-ERA aims at embracing marine and maritime research in its entirety, overarching the previous initiatives which only targeted a given area or basin and, therefore, constituting a stable and durable structure for empowering and strengthening marine research all across Europe. The main objectives to be attained are the following:

- Improve cooperation and coordination and promote harmonisation of national/regional research programmes to strengthen them, bridging possible gaps and avoiding duplications. This will significantly contribute to the setting up of a European Marine and Maritime Research Agenda. In this point SEAS-ERA is mainly aimed at developing a stable European overarching operational structure for implementing this Agenda.
  - Foster synergies at regional and pan-European level, mobilising competitive and non-competitive funds for research in a more coordinated way, through common programs and joint calls, so as to reach a critical mass to address major crossthematic marine and maritime research challenges. Moreover, SEAS-ERA will be a step forward towards achievement of the Joint Programming concept that promotes the efficiency of funding returns by avoiding fragmentation and enhancing cooperation between Member States research programmes.

Propose a plan for a better and sustainable

use of the existing Marine Research Infrastructures (MRIs), developing а coherent vision, in line with the actions undertaken within the Capacity Programme (ESFRI opportunity list). The key issue to be addressed in SEAS-ERA is how to set up scientific joint programs while implementing a regular process for access to these MRIs. Other issues to be addressed are the sharing of a common vision, e.g. an infrastructure strategy for marine research among the Member States and other countries, fostering technological development to improve MRIs quality and service, developing a cooperation frame work and a funding tool box for shared investments, and developing a methodology for the use of industry infrastructures by public research.

- Reduce imbalances among regions through human capacity building. An important issue to be taken into account is the need to assist countries in building institutional and organisational capacity through human resources for the development of oceanrelated activities in order to improve science development and its utilization in Europe. To this end, the project will devote special attention to set-up a pan-European training and mobility strategy for human resources. When possible, links with other cooperative capacity building programmes in the field of coastal and ocean management will be developed (i.e. TRAIN-SEA-COAST Programme) so as to gain synergies.
- Enhance public awareness towards marine and maritime scientific and policy issues in Europe. The partners will be encouraged to profile SEAS-ERA nationally, regionally and pan-European, where appropriate. SEAS-ERA will have a strong commitment to translate the RTD activities into social, economic and cultural benefits. Outreach activities should become a means to engage stakeholders beyond the R&D community. SEAS-ERA will emphasise the particular importance for the consortium enhance public awareness to and understanding the role of science in marine and maritime policy. Overall, this will form a core element of the dissemination strategy.

In summary, SEAS-ERA will constitute a platform for developing a European integrated policy oriented structure to promote knowledge and expertise in any sea related area; the overarching element of SEAS-ERA, its ambition to embrace the whole spectrum of marine and maritime research, makes it an open forum for knowledge sharing, a real arena where all the sea related knowledge can meet.

### Consortium

The SEAS-ERA consortium consists of 21 organisations from 18 different countries. Since the beginning SEAS-ERA has a close relation with cooperating member BONUS as a parallel initiative. Hence, the strategic partnership between SEAS-ERA and BONUS will complete the pan-European dimension of the emerging marine ERA, as with this partnership all four European marine regions would be embraced. Furthermore there are two third parties involved in the SEAS-ERA consortium. The National Research Council CNR (Italy) will assist MIUR and the European Centre for Information on Marine Science and Technology EurOcean (Portugal) will assist FCT.

# Mapping and scoping activities

The following mapping activities are included in the project:

- Identification and prioritisation of emergent disciplinary and interdisciplinary marine scientific issues of European strategic importance.
- Initiation of analysis and studies in support of the regional and pan-European Research Strategies at the research-technology and research-policy interfaces.
- Develop a Strategic Research Plan, and establish a pan-European strategic forum for Marine Research Funding Organisations and science end-users, in adherence with the concept of defragmentation of the European Research Area.

## Joint calls

Five transnational collaborative R&D projects were selected for funding based on a centralized international peer-review assessment of proposals and within the possibilities of national budgets. The total public funding was EUR 4 265 799.

Projects funded:

- 1. SEAMAN Spatially resolved ecosystem models and their application to marine management. Coordinator: University of Bergen (Norway). Participating countries: Norway, France, Iceland, Greece
- 2. EMoSEM Ecosystem models as support to eutrophication management in the North Atlantic Ocean. Coordinator: RBINS-MUMM (Belgium). Participating countries: Belgium, France, Portugal

- INVASIVES Invasive seaweeds in rising temperatures: impacts and risk assessments. Coordinator: University of Bergen (Norway). Participating countries: Portugal, France, Belgium, Iceland, Norway
- 4. MERMAID Marine environmental targets linked to regional management schemes based on indicators developed for the Mediterranean. Coordinator: Hellenic Centre for Marine Research, HCMR (Greece). Participating countries: France, Turkey, Greece
- CIGESMED Coralligenous based indicators to evaluate and monitor the "good ecological status" of the Mediterranean coastal waters. Coordinator: CNRS Délégation Provence et Corse (France). Participating countries: Turkey, France, Greece





### SUMFOREST (under negotiation)

Tackling the Challenges in the Implementation of Sustainable and Multifunctional Forestry Through Enhanced Research Coordination for Policy Decisions

### PROJECT DETAILS

Perio	d	From To	end 2013 end 2017		
Proje	ct reference	not ava	ilable yet		
Progr acror	amme Iym	FP7-KBBE			
Торіс	identifier	KBBE.2	013.1.4-01		
Title			Sustainable Forest management and Multifunctional Forestry ERA-NET		
Contr	act type	Coordin	nation (or Networking) Action		
Total EU co	cost Intribution		14 528 (according to proposal) 10 000 (expected)		
Numt partic	per of cipants	Proposi and 16	al stage: 23 full partners, 9 observers stakeholders		
Coord	linator	Environ	l Ministry of Agriculture, Forestry, ment and Water Management W, Austria		
Conta	act person		Greimel n.greimel@lebensministerium.at		
Webs	ite	not ava	ailable yet		
Partio	cipants				
AT	Water Managem	ient BML			
CH	Federal Office for the Environment FOEN				
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV				
DE		of Agricu	Iture and Food BLE		
ES	National Institute for Agriculture, Technology and Food Research INIA				
FI	Ministry of Agriculture and Forestry MMM				
FR	Ecofor				
GR	Democritus University of Thrace DUTH				
IE	Department of Agriculture, Food and the Marine DAFM				
IT	Ministry of Agricultural, Food and Forestry Policies MiPAAF				
LT	Ministry of Environment AM				
LV MK	Latvian Academy of Agriculture and Forestry Science LAAFS Ss. Cyril and Methodius University of Skopje - Faculty of				
NO	Forestry UKiM Research Council of Norway RCN				
PI	Forest Research Institute IBI				
SE	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS				
SI	Ministry of Education, Science, Culture and Sport MESCS				
SI	Slovenian Ministry of Agriculture and the Environment MKO				
SK	Ministry of Agriculture and Rural Development of the Slovak Republic MPRV SR				
UK	Forestry Commissioners Research Agency FC				
INT	European Forest Institute EFI				
INT	Nordic Forest Re	search C	ooperation Committee SNS		

### **Objective**

SUMFOREST will be instrumental creating a European forest research area that comprises:

- Well-coordinated European, national and regional research programmes and priorities that are needed to ensure the coherence of European. national and research programmes regional and priorities on issues of a generic nature, and of European interest based on shared foresight exercises. Such coordination will avoid unnecessary duplication of effort and will facilitate the allocation of freed-up resources to strategic transnational issues that go beyond the capacities of individual countries. Transnational cooperation is considered the most appropriate response to the physical challenges confronting European forests, and an efficient use of national and regional resources.
- Effectivelv coordinated research institutions and centres of excellence are crucial to address the complex interdisciplinary and cross-sectorial nature of emerging forestry challenges. Many European forest research institutions lack critical mass and have difficulties meeting current expectations with the resources available. Therefore, some concentration and specialization is necessary to permit the emergence of European forest centres of excellence which are competitive on a global scale. At the same time, more coordination and integration (this

includes mobility of researchers) among institutions is required to address complex interdisciplinary questions.

- Joint research facilities and Pan-European networks of large-scale research infrastructures with long-term funding. Those are required in key topics (information and monitoring of forest disturbances, genomics, impacts of climate change, forest policy and markets analysis, etc.) to ensure that European forest research has the right data at the right scale to be at the frontier of knowledge, and is able to address emerging challenges and policy issues in an efficient manner. Due to high costs and the transnational relevance of many questions, it makes sense to share and jointly plan these infrastructures.
- Strengthened science-policy-practice interaction is crucial for sound policymaking and for fostering innovation within the forest-based sector. Speeding up the spread and integration of forestrelated knowledge to the general public will permit the development of innovative products and services, turning challenges into business opportunities. In this context, new instruments and dynamic processes need to be established to foster a fluent science-policy dialoque. Therefore SUMFOREST will seek close relations to the "ThinkForest Forum" with the aim to strengthen communication, collaboration and partnership building between policy makers in the EU (Member countries, EU Parliament. Commission. etc.) and the science community.

# Consortium

The SUMFOREST consortium consist of 23 full partners, nine observers and 16 stakeholders. The observers are: University of Sarajevo, Faculty of Forestry (Bosnia Herzegovina), Wageningen UR (University and Research Centre) Forest Ecology and Forest Management group WUR (The Netherlands), Johann Heinrich von Thünen Institute; Federal Research Institute for Rural Areas, Forestry and Fisheries vTU (Germany), Swiss Federal Institute for Forest, Snow and Landscape Research WSL (Switzerland), and five observers from Russia: St. Petersburg State Forest Technical University FTA, Volga State University of Technology VOLGA TECH, Moscow State Forest University MSFU, Voronezh State Forest Technical Academy, Northern Research Institute of Forestry (Arkhangelsk).

### Mapping and scoping activities

The project starts with mapping and information exchange to improve mutual knowledge of existing European, national and regional programmes and capacities. Although there have been some attempts to map relevant research programmes and capacities (e.g. WWN in the 6th and 7th Framework Programme. Trees4future. Star Colibri. FORESTERRA) those only have depicted a small part of the entire forest related research activities. SUMFOREST will as much as possible draw on those results. where it is relevant to SFM and multifunctional forestry, but it may also need some additional new quantitative and/or qualitative mapping activities. Moreover the project will map those European and national policies that affect the forest sector. Again SUMFOREST will utilise existing data (e.g. ThinkForest, COST E51).

The next step will be the analysis of the collected data and the definition of common strategic activities in order to form scientific networks and enough critical mass of research capacities to effectively avoid overlaps and promote synergies among existing capacities. This process will also contribute to the identification of scientific areas (opportunities and gaps) that require transnational funding. Moreover, the policy-related part of the project will detect inconsistencies and contradictory policies, as well as deliver input towards new national and European policy and implementation activities (e.g. EU Forest strategy, national implementation of FLEGT and REDD(+)).

# Joint calls

As almost half of the partners of SUMFOREST have never participated in any ERA-NET before there need to be many activities to create a mutual understanding and trust between the partners. Therefore SUMFOREST will organise two joint calls one of them dedicated to the collaboration with Russia.





# **SUSFOOD**

# Sustainable Food Production and Consumption



# **Objective**

Susfood is the acronym for SUStainable FOOD production and consumption. Susfood defines sustainability in the food area as a food system that supports food security, makes optimal use of natural and human resources and respects biodiversity and ecosystems for present and future generations, which is culturally acceptable and accessible, environmentally sound and economically fair and viable, and which provides the consumer with nutritionally adequate, safe, healthy and affordable food.

As an ERA-NET, Susfood aims at increasing cooperation and synergy between the European partners and at defining common future perspectives in sustainable food production and consumption and will set up a European strategic research agenda. In addition, Susfood aims at enhancing collaboration and coordination between national and regional research programmes. Thanks to the identification of research priorities, gaps and opportunities, and a study of future research needs, Susfood will have positive impacts on European research. By means of two open calls (in 2013 and 2014), sustainability oriented food chain projects will be supported, in order to allow the European research area to be in the lead in sustainable food production, supply and consumption.

Susfood includes the entire food supply chain with main focus on food chain sustainability beyond the farm gate. It will cover processing, packaging, transport, retailing, food services,

### PROJECT DETAILS

Perio	d	From 2011-12-01 To 2014-11-30			
Proje	ct reference	291766			
Prog acror	ramme 1ym	FP7-KBBE			
Торіс	identifier	KBBE.2011.2.6-02			
Title		ERA-NET on sustainable food production and consumption			
Cont	ract type	Coordination (or Networking) Action			
Total EU co	cost	€ 2 327 438 € 1 999 320			
	ber of cipants	25			
Coor	dinator	French National Institute for Agricultural Research INRA, France			
Cont	act person	Marie Russel E Marie.Russel@paris.inra.fr			
Webs	site	www.susfood-era.net			
Parti	cipants				
BE	Ministry of Agri	culture of the Flemish Community - Institute for d Fisheries Research EV-ILVO			
DE	Federal Ministr BMELV	Federal Ministry of Food, Agriculture and Consumer Protection			
DE	Federal Agency of Agriculture and Food BLE				
DE	Jülich Research Centre JUELICH				
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
DK	University of Copenhagen UCPH				
EE	Ministry of Agriculture EVPM				
ES	Basque Foundation for Agro-Food Safety ELIKA				
ES	INIA	National Institute for Agriculture, Technology and Food Research INIA			
ES	-	Regional Development Agency of Murcia INFO MURCIA			
FI	5	rch Finland MTT			
FI	, ,	culture and Forestry MMM			
FR FR		Technical Coordination for Food Industry ACTIA			
FR		National Agency for Research ANR			
IT		French National Institute for Agricultural Research INRA Ministry of Agricultural, Food and Forestry Policies MiPAAF			
NL	, 5	nomic Affairs EZ			
NO	,	cil of Norway RCN			
RO	Executive Agen	Research Council of Notway RCN Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI			
PL		e for Research and Development NCBiR			
SE	Swedish Resea and Spatial Pla	rch Council for Environment, Agricultural Sciences Inning FORMAS			
SI	Ministry of Edu	cation, Science and Sport MIZS			
TR	Ministry of Agri Agricultural Res	cultural and Rural Affairs - General Directorate of search GDAR			
UK	The Secretary of State for Environment, Food and Rural Affairs DEFRA				
UK	The Technology Strategy Board TSB				

storage and consumer activities. Susfood promotes a multi-disciplinary approach from biology to food engineering and social sciences and tends towards the following socio-economic goals:

- To develop sustainable food systems from production to consumption.
- To Increase food production sustainability while reducing waste in food supply chain and limiting environmental damages.
- To improve quality of life by improving food quality in a sustainable way and the resilience of the food supply chain.
- To encourage consumers to act in a more sustainable way.
- To improve competitiveness and economic growth in the European food industry with special attention to SMEs.

# Consortium

The SUSFOOD consortium consists of a network of 25 partners from 16 European countries. For the first call, SUSFOOD benefitted from the funding of three external organisations: Agency for Innovation by Science and Technology IWT (Belgium), Federal Ministry of Education and Research BMBF (Germany) and Daniel and Nina Carasso Foundation DNCF (France and Spain). For them is the status of Associated Partners created.

### Mapping and scoping activities

To achieve these points, the consortium has developed an efficient framework with concrete actions.

 Construct an overview of the existing research. An overview of the existing research will be achieved by means of an open web based archive, named the Meta Knowledge Base (MKB). The analysis of the current research will enable formulating synergies, gaps and overlaps in European research and will form the basis for formulating future research needs. Finally, the process will result in the supporting of corresponding research topics. Susfood encourages researchers from research institutes, universities and industries to post their research projects in the database, which is freely accessible and can be found on the Susfood website (www.susfood-era. net). Among the benefits for researchers is that the MKB forms a unique platform for researchers to exchange information and to expand networks.

- Develop a transnational strategic research agenda (SRA). Based on identified medium to long-term needs the SRA will describe in detail the key research priorities within the field of sustainable food production and consumption. The SRA will establish a joint agenda for European food research and will be the foundation for transnational calls that will deepen the cooperation between national research programmes. It will also be a useful tool for building longterm transnational collaboration.
- Launch Transnational Calls. Two calls for research proposals will be implemented. At first, the demonstration of the feasibility of joint activities in some areas relevant to the project is needed. This will be achieved by developing instruments, mechanisms and processes needed to implement transnational funding activities, like call procedures, documents and also a call secretariat. The first call has been launched in February 2013. The second call is expected in January 2014.

### Joint calls

### First call 2013

The first Call for proposals started on February 2013.

The first call is divided into two sections:

- "Research": Project consortia are expected to be formed by research organisations
- "Research and Innovation": Project consortia are expected to be formed by research organisations and industry (enterprises)

Project consortia should apply to one of the three thematic call topics:

TOPIC I. Improving input, waste and side flow strategies to increase resource efficiency and provide added value in food products and food processing, manufacture, reducing input (energy, water) in the food chain.

TOPIC II. Innovation in food processing technologies and food products to support a sustainable food chain.

TOPIC III. Understanding consumer behaviour to encourage more sustainable food choices.

Respecting the topics of the call, the projects may be furthermore considered in the context of the following cross-cutting issues:

- A whole food systems approach (system governance).
- Equity and ethics in food production and consumption and access for all consumers to a variety of food products.
- Localisation of activities and internalizing

external costs of food to optimize environmental, health and social impact and economic efficiency.

 Role of knowledge exchange, translation of research into use; information management and sharing; the need for harmonised EU databases, accessibility by SMEs to innovation and new solutions.

### Second call 2014

The second Call for proposals will start on January 2014.

The call follows a two-steps procedure, 98 preproposals were submitted, but seven were ineligible . There were 35 eligible pre-proposals on topic 1 (resource efficiency), 30 on topic 2 (innovation), and 26 on topic 3 (consumer behaviour). out of these 91 eligible preproposals 26 have been accepted to the full proposal stage with deadline October 1, 2013. Projects will start in 2014.





# WOODWISDOM-NET 2

Networking and integration of national programmes in the area of wood material science and engineering in the forest-based value chains



WoodWisdom-Net

# **Objective**

The overall objective of WW-Net 2 was to promote the transformation of the European F-BI from a resource-intensive to a value-added knowledge-intensive, innovative and globally competitive industry based on the sustainable use of renewable raw materials. The steps to reach the above stated overall objective were:

- Creating and establishing a common research and funding platform for longlasting cooperation by deepening and broadening the cooperation of the national funding organizations and by inviting partners from additional new countries to join the platform;
- Assisting raw material optimisation (and efficient utilisation of raw material properties) in the development of innovative, eco-efficient processes, products and services along different forest-based value chains and thus promoting competitiveness of the sector; and
- Promoting the utilization of cutting-edge knowledge for new applications at the cross roads between different technologies and disciplines - transformation of F-BI from traditional separate value chain industry to optimized multiple value chains industry which addresses to customer needs, reduced resource consumption and increased value creation.

Besides the overall objective, there were defined the following specific objectives:

### PROJECT DETAILS

Perio	d	From To	2009-03-01 2012-02-29		
Follov	v-on ERA-NET	WoodWisdom-Net+			
Proje	ct reference	NMP2-	ER-2009-235066		
Progr acron	amme ym	FP7-NM	ИР		
Торіс	identifier	NMP-2008-4.0-14			
Title			T on transnational cooperation for novative products in the forest-based hains		
Contr	act type	Coordir	nation (or Networking) Action		
Total EU co	cost ntribution	€ 1 42 € 1 33			
Numt partic	er of ipants	19			
Coord	linator	Finnish Funding Agency for Technology and Innovation TEKES, Finland			
Contact person		Ilmari Absetz T + 358 2950 55837 E ilmari.absetz@tekes.fi Mika Kallio E mika.kallio@woodwisdom.net			
Webs	ite	www.woodwisdom.net			
Partic	ipants				
DE	Federal Ministry	of Educ	ation and Research BMBF		
DE	Jülich Research (	Centre J	UELICH		
ES	National Institute for Agriculture, Technology Research INIA		riculture, Technology and Food		
FI	Academy of Finla	and AKA	ι		
FI	Ministry of Agricu	ulture a	nd Forestry MMM		
FI	The Finnish Funding Agency for Technology and Innovation TEKES				
FR	French National Institute for Agricultural Research INRA				
FR	Ministry of agriculture, the food processing industry and forestry/ General Directorate for Agricultural, Agrifood and Regional Policies (MAAF/DGPAAT)				
FR	Technological Institute for Forest Cellulose, Construction-woo and Furniture FCBA				
HU	Ministry of Rural Development KvVM				
IE	National Council for Forest Research and Development COFORD				
IT	Ministry of Agricu	ultural, I	Food and Forestry Policies MiPAAF		
LV	Latvian Academ	y of Scie	ences LAS		
LV	Ministry of Agricu	ulture R	epublic of Latvia ZM		

- LV MINISTRY OF AGRICULTURE REPublic of Latvia Z NO Research Council of Norway RCN
- SE Swedish Governmental Agency for Innovation Systems VINNOVA
- SE Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- SI Ministry of Higher Education, Science and Technology MHEST TR Scientific and Technological Research Council of Turkey TUBITAK

- Broadening, strengthening, streamlining and deepening the cooperation at the European and national levels within the forest-based sector and with other relevant sectors. The final goal is longlasting cooperation.
- Broadening, deepening, streamlining and strengthening the joint activities, including strengthening the existing ongoing transnational research programme to cover the whole innovation chain from science to business by launching new calls, reinforcing industry involvement and developing management of a transnational programme.
- Launching new calls (the goal was to further develop the WoodWisdom-Net Research Programme by launching two joint calls for projects in 2009 (Joint Call 2) and 2010 (Joint Call 3)).

### Consortium

The consortium includes 19 partners from 12 countries.

### Mapping and scoping activities

WoodWisdom-Net has been very active and successful in tying together all relevant stakeholders of the forest-based sector. One of the Work Packages "Strategic Network Development" was especially allocated to this task. The proactive dissemination activities have led to good visibility as the programme has been actively present at all important conferences and meetings within the sector. As the call themes have very often been interdisciplinary, the network has opened up to other domains which proved to be very fruitful and culminated in the joint call with another relevant ERA-NET, ERA-NET Bioenergy. As a consequence, the forest-based sector is now better equipped with competencies for a successful collaboration with other disciplines in larger projects. First efforts in using networking instruments like COST have been undertaken and should be increased

# Joint calls

Following the first call conducted by the WoodWisdom-NET under FP6, two more calls were launched by WW-NET 2.

### Second call 2009

The 2nd joint call for proposals "Sustainable, competitive processing and end-use concepts for forest-based industries" was launched in autumn 2009. Call 2 was focused on applied research and development projects and the themes and topics for the call were defined by the national funding organisations together with industry, based on strategies described in the SRA and NRAs of the forest based sector. The focused call topics were aimed at activating industry partners to participate more in the WoodWisdom-Net Research Programme and to create closer interaction between the research community and applied product development.

This resulted in 38 proposals, involving partners from 17 different countries and additional associated countries such as Belgium and Brazil. After evaluation by an international Expert Panel, nine projects were funded and these started with a kick-off session at the WoodWisdom-Net Programme seminar in Paris in February 2011. The total volume of the projects is over EUR 13 million: public WW-Net funding 68% ( nine million euros), industrial funding of the company projects 8% (one million euros), industrial funding of research projects 12% (EUR 1.5 million), and research centres' own funding 12% (EUR 1.5 million).

List of selected projects sorted by main research area:

Research area 1. Improving the performance of energy and resource efficient timber construction (massive or light-weight, new construction or renovation concepts) with new concepts, tools and processes considering total building performance.

 Acuwood - Acoustics in wooden buildings overview. Coordinator: SP Trätek (Sweden). Participating countries: Sweden, Germany, Switzerland

- ECO2 Wood in carbon efficient construction overview. Coordinator: Aalto University (Finland). Participating countries: Finland, Sweden, Germany, Italy, Austria
- smartTES Innovation in timber construction for the modernisation of the building envelope overview. Coordinator: Technische Universität München (Germany). Participating countries: Germany, Finland, Norway, Austria

Research area 2. Creating new business opportunities through innovative wood and fibrebased products and composites with properties optimised to the end use requirements and sustainable use of resources.

- Lilo High Impact Lignin-Cellulose-Composites for Logistics - Development of advanced lignin-cellulose-composites with high impact properties for modular pallets and components for transport systems overview. Coordinator: Tecnaro GmbH (Germany). Participating countries: Germany, Finland, Latvia, Turkey
- 5. MouldPulp Development of Durable, Fully Bio-Based Thermoplastic Composites from Bioplastics and Pulp Fibres for Injection Moulding Applications overview. Coordinator: Fraunhofer-Institute for Environmental, Safety, and Energy Technology UMSICHT (Germany). Participating countries: Germany, Sweden, Finland

Research area 3. Increasing the competitiveness of the forest-based value chain by strategic technology renewal, new business strategies and production systems.

- CTPro New Forest Industry Production Systems Based on High-speed CT Scanning overview. Coordinator: SP Trätek (Sweden). Participating countries: Germany, Sweden, Italy
- HI-FRETECH High-frequency impregnation of wood overview. Coordinator: Georg-August-Universität Göttingen (Germany). Participating countries: Germany, Norway, Spain, Denmark
- 8. WoodSens Developing and implementing formaldehyde online-senor systems in wood-based panel processing. Coordinator:

Georg-August-University of Göttingen (Germany). Participating countries: Germany, France, Spain

Research area 4. Optimising end-of-life of wood based products considering their total life cycle.

9. DEMOWOOD - Optimisation of material recycling and energy recovery from waste and demolition wood in different value chains. Coordinator: FCBA (Germany). Participating countries: Germany, France, Finland

### Third call 2010

The 3rd call of WW-Net was arranged together with the ERA-NET Bioenergy. This Joint Call 2010 for "Sustainable forest management and optimised use of ligno-cellulosic resources -Bridging gaps between research disciplines, producers, consumers and society" was launched on September 15, 2010. In this call the ERA-NETs WoodWisdom-Net 2 and ERA-NET Bioenergy aim to step up the cooperation and coordination of research activities carried out at national and regional level by joining forces to promote innovative research and cooperation to help optimise the use of trees and forests. The public funding is jointly provided by 19 national funding organisations from Finland, France, Germany, Ireland, Italy, Latvia, Norway, Poland, Slovenia, Spain, Sweden, Turkey and the United Kingdom between 2011 and 2014.

During this 2-step call there were 81 pre-proposals submitted and out of these 40 proposals were invited to the second step. The full proposals were peer-reviewed by an international Expert Panel and based on the ranking list collected by the Expert Panel the Call Committee then recommended 13 projects to be funded within the framework of the available national budgets. The total value of these 13 projects is close to EUR 21 million, the share of public WW-Net funding being EUR 13.7 million and the rest (ca. seven million euros) coming from other co-funding sources (industrial co-funding etc.). As well as the main participants, some of the projects have partners from Austria, Brazil and Chile.

List of selected projects sorted by main research area:

Area 1. Forest for multiple needs of society, including enhanced productivity and optimised use of forest feedstock

- AgroCop Maximizing Timber and Energy Wood Production by Innovative Agroforestry Systems with Short Rotation Coppice as Intercrop. Coordinator: Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg (Germany). Participating countries: Germany, France, Ireland, Italy
- BIOFOAMBARK Bark Valorization into insulating Foams and Bioenergy. Coordinator: Institute for Forest Utilization and Works Science and Freiburg Materials Research Center (FMF) (Germany). Participating countries: Germany, Finland, Slovenia, France, Spain, Italy
- COOL COMPETING USES OF FOREST LAND

   The future of integrative and segregative policy and forest management approaches in Europe. Coordinator: Institute of Forest and Environmental Policy (Germany). Participating countries: Germany, Finland, Slovenia, Spain, Norway
- RegioPower A regional IT-based platform for bringing resource needs and land-based resource production together. Coordinator: Rheinische Friedrich-Wilhelms-Universität Bonn (Germany). Participating countries: Germany, Sweden, Finland, Slovenia, associated partner in China
- 5. WOP WoodSupply. Coordinator: University of Helsinki (Finland). Participating countries: Finland, Sweden, Germany

Area 2. Advanced products and technologies for primary wood processing and manufacturing of wood and fibre-based products

 Cell-Assembly - Self-Assembled Biomimetic Wood-Based Nanocomposites. Coordinator: Aalto University/Physics (Finland). Participating countries: Finland, Sweden, Germany

- LBTGC Load Bearing Timber-Glass Composite Structures. Coordinator: Vienna University of Technology (Austria). Participating countries: Austria, Germany, Sweden, Turkey, Slovenia, Chile, Brazil
- 8. PowerBonds Enhancement of Fiber and Bond Strength Properties for Creating Added Value in Paper Products. Coordinator: Tampere University of Technology (Finland). Participating countries: Finland, Germany, France, Sweden, Austria
- 9. WOBAMA Wood Based Materials and Fuel. Coordinator: KTH Royal Institute of Technology (Sweden). Participating countries: Sweden, France, Finland, Poland
- 10. WoodApps Improvement in collaboration along the wood value chain through knowledge-based methods and mobile applications. Coordinator: HCN e. V. -High Competence Network (Germany). Participating countries: Germany, Slovenia, Sweden, Ireland

Area 3. Advanced biofuels and biorefineries

- GREASE A novel lipid platform to sustainable bio-based products from low-value forestry streams through multi-functional fatty acids. Coordinator: VTT Technical Research Centre Finland (Finland). Participating countries: Finland, Germany, Turkey, Sweden, Italy, Finland
- 12. PINOBIO Pinosylvins as novel Bioactive Agents for Food Applications. Coordinator: University of Eastern Finland (Finland). Participating countries: Finland, Spain, Latvia, Slovenia
- ProLignin High-value products from lignin side-steams of modern Biorefineries. Coordinator: VTT Technical Research Centre of Finland (Finland). Participating countries: United States, Germany, Latvia, Spain, Italy, Finland, Brazil



# FP7 ERA-NET Plus Actions

European Reseach Area Networks of the 7th Framework Programme



# **BESTF 1**

### **BioEnergy Sustaining the Future**



### PROJECT DETAILS

Perio	d	From To	2013-01-01 2017-12-31 (Expected)		
Follov	v-on ERA-NET	BESTF2	2		
Proje	ct reference	32147	7		
Progr acron	amme lym	BESTF	BESTF		
Торіс	identifier	ENERGY.2012.10.1.1: ERA-NET_Plus – Bioenergy Demonstrations of the European Industrial Bioenergy initiative			
Title		Bioene	rgy Sustaining the Future		
Contract type		Coordination and Support Actions ERANET Plus			
Total cost EU contribution		€ 46 000 000 € 15 000 000			
Number of participants		10			
Coord	linator	Techno Kingdo	logy Strategy Board TSB, United m		
Contact person		Megan Cooper T +44 300 0686298 E megan.cooper@decc.gsi.gov.uk			
Webs	ite	www.eranetbestf.net			
Participants					
CH	Federal Office of Energy SFOE-DETEC				
DE	Agency for Renewable Resources FNR				
DK	Energy Development and Demonstration Programme EUDP				
ES	Department of Economy, Finance, Industry and Employment				

- of Navarra DEHIE
- FI Finnish Funding Agency for Technology and Innovation TEKES
- PT Foundation for Science and Technology FCT
- SE Swedish Energy Agency SWEA
- UK Biotechnology and Biological Sciences Research Council BBSRC
- UK Department of Energy and Climate Change DECC
- UK Technology Strategy Board TSB

# **Objective**

This proposal directly addresses the goals of the Energy 2012.10.1.1 ERA-NET Plus call by implementing a joint programme for bioenergy demonstration projects to demonstrate enhanced bioenergy technologies that will help Europe progress towards achieving its 2016 and 2020 targets. It will leverage public-private partnerships to manage the risks and share the financing of close to market bioenergy projects.

The key objectives of this BESTF initiative are:

- To implement a single collaborative funding call that will support projects focused on the generation of bioenergy.
- · To maintain and enhance coherence and networking between national bioenergy programmes across the EU.
- To further the demonstration of enhanced bioenergy technologies in order to help develop robust project plans for a range of demonstrator and flagship plants, that will help Europe to make progress towards achieving its 2016 and 2020 energy targets.
- To disseminate knowledge gained from the programme and individual projects across the EU.

### Consortium

The BESTF consortium consists of 10 organisations from eight EU Member States and Associated Countries, including the UK, Denmark, Finland, Germany, Portugal, Spain, Sweden and Switzerland.

# Mapping and scoping activities

The BESTF programme will support bioenergy demonstration projects that:

Address one or more of the seven EIBI bioenergy value chains detailed above;

Provide an innovative process or step within the value chain (see detail below);

Are at an appropriate stage of development (see detail on TRLs below), and will be in or move into demonstration phase within the timeframe of the project;

Are industry-led and will lead to commercial scale application.

Such projects may include:

 Technological modifications of existing and tested demonstration plants, if these modifications serve to realise processes which differ significantly from the past operations.  New pilot or prototype demonstrations of innovative bioenergy conversion technologies, covering one or several of the seven value chains and including analysis and evaluation of results, plus strategies (and proposals) for further optimisation to achieve commercial deployment.

BESTF will complement existing financial measures available to industry and support projects that have progressed to high technology readiness levels (TRLs; see: Technology Readiness Levels: A White Paper. April 6, 1995 John C. Mankins Advanced Concepts Office Office of Space Access and Technology NASA) but still require a level of public and private financial support to enable their industrial implementation. Relevant examples of financial support for industry include NER300 funding; European Investment Bank (EIB) financial products; Private venture capital funds.

# Joint call

A joint call was launched in January 2013 and closed on 27th March 2013. Assessment of proposals will be complete by November 2013.





# **BESTF 2** (under negotiation)

### **BioEnergy Sustaining the Future 2**

### PROJECT DETAILS

Peri	od	From To	2013-12-01 (Expected) 2018-11-30 (Expected)		
Project reference		61804	618046		
	jramme nym	BESTF	2		
Торі	c identifier	ENERG	Y 2013.10.1.1: ERA-NET Plus		
Title	e de la companya de la	Bioene	rgy Sustaining the Future 2		
Cont	tract type	Coordir	nation and Support Actions ERANET Pl		
Total cost EU contribution			€ 22 089 552 € 7 289 552		
Number of participants		8			
Coordinator			partment of Energy and Climate DECC, United Kingdom		
Contact person		T +44	Cooper 300 0686298 an.cooper@decc.gsi.gov.uk		
Website		www.e	ranetbestf.net		
Part	icipants				
CH Federal Office of		f Energy	SFOE-DETEC		
DE	Agency for Renewable Resources FNR				
DK	K Energy Development and Demonstration Programme EUDF				
NL Ministry of Economic Affairs EZ			airs EZ		
SE	Swedich Energy Agency SW/EA				

- SE Swedish Energy Agency SWEA
- UK Biotechnology and Biological Sciences Research Council BBSRC
- UK Department of Energy and Climate Change DECC
- Technology Strategy Board TSB UK

### **Objective**

This proposal directly addresses the goals of the Energy 2013.10.1.1 ERA-NET Plus call by implementing a joint programme for bioenergy demonstration proiects to demonstrate enhanced bioenergy technologies that will help Europe progress towards achieving its 2016 and 2020 targets. It will leverage public-private partnerships to manage the risks and share the financing of close to market bioenergy projects.

The key objectives of this second BESTF initiative are:

- To implement a single collaborative funding call that will support projects focused on the generation of bioenergy.
- To maintain and enhance coherence and networking between national bioenergy programmes across the EU.
- To further the demonstration of enhanced bioenergy technologies in order to help develop robust project plans for a range of demonstrator and flagship plants, that will help Europe to make progress towards achieving its 2016 and 2020 energy targets.
- To disseminate knowledge gained from the programme and individual projects across the EU.

### Consoritium

The BESTF2 consortium consists of eight organisations from six countries.

# Mapping and scoping activities

The BESTF2 programme will support bioenergy demonstration projects that:

- Address one or more of the seven EIBI bioenergy value chains detailed above;
- Provide an innovative process or step within the value chain (see detail below);
- Are at an appropriate stage of development (see detail on TRLs below), and will be in or move into demonstration phase within the timeframe of the project;
- Are industry-led and will lead to commercial scale application.

Such projects may include:

- Technological modifications of existing and tested demonstration plants, if these modifications serve to realise processes which differ significantly from the past operations.
- New pilot or prototype demonstrations

of innovative bioenergy conversion technologies, covering one or several of the seven value chains and including analysis and evaluation of results, plus strategies (and proposals) for further optimisation to achieve commercial deployment.

BESTF2 will complement existing financial measures available to industry and support projects that have progressed to high technology readiness levels (TRLs; see: Technology Readiness Levels: A White Paper. April 6, 1995 John C. Mankins Advanced Concepts Office Office of Space Access and Technology NASA) but still require a level of public and private financial support to enable their industrial implementation.

Relevant examples of financial support for industry include:

- NER300 funding;
- European Investment Bank (EIB) financial products;
- Private venture capital funds.

# Joint call

A single joint call will be launched within six months of the start of the project, and is anticipated to be by Winter 2013.





# **CORE Organic Plus**

Innovative solutions in organic food and agriculture for next generation of food systems seeking synergies between rural development, natural resource management and food security and quality ERA-NET Plus

### PROJECT DETAILS

Perio	d	From 2013-12-01 To 2018-11-30			
Project reference		618107			
Progr acror	ramme iym	FP7-KBBE			
Topic	identifier	KBBE.2013.1.4-06			
Title		Coordination of European Transnational Research in Organic Food and Farming Systems Plus			
Contr	act type	ERA-NET Plus			
Total EU co	cost ontribution	€ 9 090 909 € 3 000 000			
Numl parti	per of cipants	23			
Coord	dinator	International Centre for Research in Organic Food Systems ICROFS-AU, Denmark			
Conta	act person	Niels Halberg (coordination) Ulla Sonne Bertelsen (project management) T +45 87 15 77 16 E Ulla,Bertelsen@icrofs.org			
Webs	ite	www.coreorganic.org			
Parti	cipants				
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW				
BE	Department of Agriculture and Fisheries, Flemish Authorities DLV				
BE	Walloon Agricultural Research Centre CRA-W				
CH	Federal Office for Agriculture FOAG				
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV				
DE	Federal Agency of Agriculture and Food BLE				
DK DK	International Centre for Research in Organic Food Systems ICROFS Ministry of Food, Agriculture and Fisheries - Danish Food Industry				
EE	Agency DAFA Ministry of Agriculture of Estonia PMin				
ES	National Institute for Agriculture, Technology and Food Research				
FI	Ministry of Agricu	ulture and Forestry MMM			
FR	Ministry of Agriculture, Food and Forestry MAAF				
FR	French National Institute for Agricultural Research INRA				
IT	Ministry of Agricultural, Food and Forestry Policies MiPAAF				
LT	Ministry of Agriculture of the Republic of Lithuania ZUM				
LV	Latvian State Institute of Agrarian Economics LSIAE				
NL	Ministry of Economic Affairs EZ				
NO	Research Council of Norway RCN				
PL	National Centre for Research and Development NCBiR				
RO	Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI				
SE	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS				
, ,		ture and the Environment MKO			
		A sector day was a well by sector all bits EAL			

- TR Ministry of Food Agriculture and Livestock MoFAL
- UK Department for Environment, Food and Rural Affairs DEFRA

### **Objective**

The overall objective of the CORE Organic (CO) Plus is to efficiently fund transnational research addressing major potentials and challenges for the development of organic food and farming and the industry's capacity to contribute to solving important societal challenges.

In many European countries organic agriculture has grown out of a niche and become an important part of agricultural production and consumption. This development has happened and is still in process as a consequence of increasing consumer interest and political support; assisted by research, innovation and extension dedicated to organic food and farming. A major reason for this is, that organic agriculture addresses important challenges such as sustainable production of high quality food, reducing dependency on high energy inputs, improving environmental and nature conservation, climate change adaptation, animal welfare and rural livelihoods. Evidence from research and practice can pave the way for the organic sector to become a major and important example of sustainable and productive food and farming systems.

CO seeks to tackle these challenges by supporting organic food and farming systems in a trans disciplinary and holistic approach by creating sufficient volume in funding for a joint transnational call and so allowing research of high value and significance considering topics of transnational character. These topics have been explored during COII taking into consideration national research needs and transnational research gaps.

Thus, the main aim of this transnational cooperation and joint call is to improve the knowledge basis and innovation capacity necessary for supporting the next development phase of organic food and farming as a tool to answer to significant societal challenges in Europe's agriculture and food systems.

The process will build on experiences from the two previous CO ERA-NETs and on knowledge gained from ERA-NET related meetings and workshops. Furthermore a call process evaluation performed within COII will contribute to further improve the call process.

CO Plus will involve the technology platform "TP Organics" in several activities and foster relations with national and transnational stakeholders.

Initiating projects on topics identified as common priorities while encouraging the participation of SMEs and facilitating the integration of new forms of knowledge generation, innovation and dissemination in the project designs will allow the sector to better meet the demand for organic food and products and at the same time further develop the practices in accordance with the organic principles. This will contribute to sustainable development in food production and improve the general competitiveness of the European agriculture and present new and innovative solutions to environmentally friendly agriculture with a high level of animal health and welfare.

### Consortium

The CO Plus consortium consists of 23 partners from 19 countries.

## Mapping and scoping activities

Co Plus will set focus on monitoring and dissemination activities within the research projects, to maximise the use of the results from the transnational research and achieve the highest possible impact of the research results within the organic sector and the agricultural sector as such. Different tools like continuous newsletters with research results, mandatory use of the open access archive Organic Eprints and identified national knowledge hubs for dissemination will support these efforts.

On basis of the current research activities and results, and national, transnational and stakeholders research priorities, further research needs for a future call will be identified.

# Joint call

A joint call for transnational research and innovation in organic food and farming is scheduled at the beginning of CO Plus. The call will comprise four different thematic research areas with several sub-topics.

The call will allow for a focused and coordinated research and innovation effort covering the most important and pertinent challenges along the organic value chains and - where relevant - combine research and innovation in primary production with development in processing techniques, value adding and market and consumer research.





# ERASysBio+

The consolidation of systems biology research stimulating the widespread adoption of systems approaches in biomedicine, biotechnology, and agri-food

RASysBio

# **Objective**

Systems biology is still considered a young discipline in the field of life sciences. It integrates mathematics, chemistry, physics, informatics, engineering and other fields in biological research. The fragmentation of the discipline concerns all levels of the field:

- It confronts researchers with a new combination of knowledge, methods, skills and expertise from different disciplines.
- It challenges funders overcome obstacles hindering cross organisational funding across national borders.
- It dares policymakers set goals outside the limits of preconceived structures.

It is the interdisciplinary that makes collaboration imperative - on all levels. Therefore the ERASysBio+ partners firmly believe that systems biology offers the ideal vehicle to implement pan-European collaboration in order to overcome the still success limiting fragmentation within systems biology. The aim of this proposal is to implement a large transnational call enabling transnational, collaborative research projects in systems biology research. The funding organisations represented by this consortium are aiming to:

- jointly pave the way for systems biology research to interact outside the boundaries set by national regulations,
- widen the landscape beyond that of wellestablished groups and contribute to integrating groups from regions where the

### PROJECT DETAILS

### Period

	10 2010 00 00
Project reference	235447
Programme acronym	FP7-COORDINATION
Topic identifier	ERANET.2008.2
Title	ERA-NET Plus proposals of a horizontal nature
Contract type	ERA-NET Plus
Total cost EU contribution	€ 24 033 837 € 5 500 000
Number of participants	11
Coordinator	Jülich Research Centre JUELICH, Germany

From 2008-10-01

Bernhard Gilleßen Contact person E b.gillessen@fz-juelich.de

### Website

- Participants
- AT Federal Ministry of Science and Research BMWF

www.erasysbio.net

- DE Federal Ministry of Education and Research BMBF
- DE Jülich Research Centre JUELICH
- ES Ministry of Economy and Competitiveness MINECO
- FI Academy of Finland AKA
- FR National Agency for Research ANR
- Israel Science Foundation ISF 11
- LU National Research Fund FNR
- NL The Netherlands Organisation for Health Research and Development ZonMw
- SL Ministry of Education, Science, Culture and Sport MESCS
- UK Biotechnology and Biological Sciences Research Council BBSRC

systems approach and its funding are only just emerging.

The ERA-NET-Plus instrument is the only instrument to effectively combine national and European funding efforts in an efforts in a joint funding measure achieve the abovementioned ambitious goals.

# Consortium

The ERASysBio+ consortium consists of 11 partners form 10 different countries.

# Joint call

The ERA-NET Plus ERASysBio+ is the 2nd Joint Call of the ERA-NET ERASysBio. Its topic is "The consolidation of systems biology research - stimulating the widespread adoption of systems approaches in biotechnology, biomedicine and agri-food". The call has been launched on 15-10-2008 with a budget of EUR 24 million. The consortia have taken up work in March 2010 and the last research projects will end on 2013-08-31.

The main purpose of the call is to generate transnational collaborations for research and development on Systems Biology in Europe. Application to the call has been open to joint transnational research proposals with a maximum of seven participants from a minimum of two ERASysBio+ partner countries (Austria, Germany, Spain, Finland, France, Israel, Luxembourg, The Netherlands, Slovenia, United Kingdom).

The aim of the call is to enable transnational, collaborative research projects in Systems Biology research involving the quantitative and integrative understanding of dynamic biological processes. All 16 research projects involve interdisciplinary studies that combine applied mathematics and/or statistics with experimental data to create and validate appropriate models. All aspects of biotechnology, biomedicine and agri-food from molecular systems, to cells, organs, up to whole organisms were considered

in this call. Research focused on microorganisms has to be clearly distinctive from research fields funded under the SysMO initiative of ERASysBio.

Project coordinators, data management representatives, the scientific advisory board and the funding partners met on 17th-18th of May 2010 in Paris for the kick-off meeting. Following 1.5 years of scientific work, the next joint event took place on 13th -15th of September 2011 in Vienna. The scope of this mid-term meeting was to evaluate the progress of the projects on the basis of talks and posters. A final meeting took place on 26th-27th June 2013 in Berlin.

Projects funded:

- FRIM FRuit Integrative Modelling. Coordinator: INRA-Bordeaux (France). Participating countries: France, United Kingdom, Germany, South Africa
- LINCONET Modelling the Gene Regulatory Network underlying Lineage Commitment in Human Mesenchymal Stem Cells: Identification of Drug Targets for the Anabolic Treatment of Degenerative Disorders. Coordinator: FNWI Radboud University Nijmegen (The Netherlands). Participating countries: The Netherlands, United Kingdom, Germany
- BioModUE\_PTL Biophysical Modelling of the Uterine Electromyogram for understanding and preventing PreTerm Labor. Coordinator: Université de Technologie de Compiègne (France). Participating countries: France, The Netherlands, Slovenia, Iceland
- Zebrain Understanding decision making from the dynamics of large neural populations in behaving zebra fish. Coordinator: Instituto Cajal, CSIC (Spain). Participating countries: Spain, France, Germany, Israel
- SYNERGY Systems approach to gene regulation biology through nuclear receptors. Coordinator: University of Helsinki (Finland). Participating countries: Finland, The Netherlands, United Kingdom, Germany
- 6. SynProt A Systems Biological Approach to Elucidate Local Protein Synthesis Code

in Plasticity and Memory. Coordinator: University of Haifa (Israel). Participating countries: Israel, United Kingdom, Norway

- LymphoSys Signalling pathways and gene regulatory networks responsible for Th17 cell differentiation. Coordinator: University of Turku (Finland). Participating countries: Finland, United Kingdom, The Netherlands
- 8. SHIPREC Living with uninvited guests comparing plant and animal responses to endocytic invasions. Coordinator: Research Centre Jülich GmbH (Germany). Participating countries: Germany, France, United Kingdom, Spain
- ModHeart Modelling the genetic network controlling heart development using the model organism Drosophila melanogaster. Coordinator: Developmental Biology Institute of Marseille-Luminy (France). Participating countries: France, Germany, Spain
- 10. C5Sys Circadian and cell cycle clock systems in cancer. Coordinator: INSERM and University Paris Sud 11 (France). Participating countries: France, The Netherlands, United Kingdom
- 11. iSAM Integrative Systems Analysis of the Shoot Apical Meristem. Coordinator: Cardiff University (United Kingdom). Participating countries: United Kingdom, France, Finland
- 12. livSYSiP The systems biology of network

stress based on data generated from in vitro differentiated hepatocytes derived from patient-specific human iPS cells. Coordinator: MPI for Molecular Genetics (Germany). Participating countries: Germany; Austria

- EpiGenSys System Biological Determination of the Epigenomic Structure-Function Relation. Coordinator: Erasmus University Rotterdam (The Netherlands). Participating countries: The Netherlands, United Kingdom, Germany
- 14. GRAPPLE Iterative modelling of gene regulatory interactions underlying stress, disease and ageing in C. elegans. Coordinator: University of Liverpool (United Kingdom). Participating countries: United Kingdom, Spain, The Netherlands, France
- 15. ApoNET Systems Analysis of TNF and TRAIL Signalling Pathways in Hepatocytes. Coordinator: University of Heidelberg (Germany). Participating countries: Germany, United Kingdom
- 16. TB-HOST-NET Integration of computational modelling with transcription and gene essentiality profiling of both MTB bacillus and infected human dendritic cells and macrophages to understand molecular interaction networks involved in the host-pathogen cross-talk. Coordinator: University of Surrey (United Kingdom). Participating countries: United Kingdom, France, Germany, Italy





# FACCE-ERA-NET+ (under negotiation)

### Food security, Agriculture, Climate Change ERA-NET plus

### PROJECT DETAILS

Period	1	From To	2013-10-01 2018-09-30		
Project reference		not yet available			
Programme acronym		FACCE-ERA-NET Plus			
Topic identifier		KBBE.2013.1.4-05			
Title		Climate smart Agriculture: adaptation of agricultural systems in Europe ERA-NET Plus			
Contr	act type	Coordination (or Networking) Action			
Total cost EU contribution		€ 16 000 000 € 4 000 000			
Number of participants		23			
Coordinator		French National Institute for Agricultural Research INRA, France			
Contact person		Isabelle Albouy T +33-1-42-75-94-42 E isabelle.albouy@paris.inra.fr			
Website		www.faccejpi.com			
Partic	ipants				
BE	Public Service of Wallonia SPW				
CH	Swiss National Science Foundation SNSF				
CY	Research Promotion Foundation RPF				
CZ	Ministry of Agriculture of the Czech Republic MZE				
DE	Federal Agency of Agriculture and Food BLE				
DE	Federal Ministry of Food, Agriculture and Consumer Protection BMELV				
DE	Jülich Research	Jülich Research Centre JUELICH			
DE	Federal Ministry	of Educ	ation and Research BMBF		
DK	Ministry of Science, Technology and Innovation – Danish Agency for Science, Technology and Innovation DASTI				
EE	Ministry of Agriculture EVPM				
ES	National Institute for Agriculture, Technology and Food Research INIA				
FI	Ministry of Agriculture and Forestry MMM				
FI	Academy of Finland AKA				
FR	National Agency for Research ANR				
FR	French National Institute for Agricultural Research INRA				
IE	Agriculture and Food Development Authority TEAGASC				
IL	Ministry of Agriculture and Rural Development MOARD				
IT	Ministry of Agricultural, Food and Forestry Policies MiPAAF				
NL	Ministry of Economic Affairs EZ				
NO	Research Council of Norway RCN				
RO	Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI				
SE	Swedish Research Council for Environment, Agricultural				

- SE Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning FORMAS
- UK Biotechnology and Biological Sciences Research Council BBSRC

## **Objective**

The overall aim of the FACCE-ERA-NET+ action is to allow the 18 Member and Associated State partners to successfully implement a Joint Call on Climate Smart Agriculture as part of the FACCE-JPI action strategy detailed in the SRA thus further increasing the level of coordination between

European research funding bodies in the area of Agriculture, Food Security and Climate Change. This will contribute to the strategic objective of the JPI which is to build a European Research Area in the domain of agriculture, food security and climate change as well as to the scientific objective of enhancing resilience in agricultural production systems. In turn, this will contribute to tackling the societal challenge of ensuring food security in the face of climate change.

Specifically, this ERA-NET Plus action will:

- Enhance operational coordination of RTD public funding in Europe by implementing a transnational joint call, thus improving coordination and reducing overlapping between national and EU funding;
- Contribute to the ERA by aligning 23 national research programmes;
- Contribute to achieving critical mass and ensuring better use of limited resources in the area of adaptation to climate change;
- Contribute to delivery of the FACCE JPI SRA by setting up a joint call on one of five core themes (adaptation to climate change) through new knowledge

generation and innovation;

- Provide a leverage effect on national financial contributions through the participation of the EC (adding 33% to the call budget);
- Contribute to addressing the societal challenge of sustainable agriculture and food security in the face of climate change through more resilient production systems;
- Contribute to research for devising resilient and eco-efficient crop and livestock systems while ensuring conservation of soil, water and genetic resources and taking into account socio-economic aspects of adaptation;
- Through innovative research, contribute to technological advances for climate smart agriculture – eco-technologies to adapt water management by improved water harvesting, increased water use efficiency and efficient fertilisation practices, to monitor and reduce greenhouse gas, to increase and verify soil and biomass carbon stocks;
- Contribute to the experience of the JPI in setting up fast, easy and simple ways to set up transnational projects to improve future calls including in the possible context of an Article185 action by sharing good practices in implementing research programmes.

### Consortium

The FACCE-ERA-NET+ consortium consists of 23 partners from 18 countries.

# Mapping and scoping activities

Extensive mapping of each of FACCE-JPI's five core themes has been carried out under FACCE CSA including the core theme on adaptation to climate change and therefore is not foreseen in the context of this ERA-NET Plus.

# Joint call

One joint call addresses adaptation of European agriculture to climate change to be launched in October 2013. The focus areas include the following:

- Genetics & Breeding of animals and plants
   to increase resilience to climate change
- Pests & diseases linked to climate and posing significant risks
- Adaptive management of water and soil resources
- Options for adapting agricultural systems, including crop, livestock and mixed systems, as well as horticultural systems.





# WOODWISDOM-NET+

Innovation in the forest-based sector for increasing resource efficiency and tackling climate change with competitive customer solutions



WoodWisdom-Net

# **Objective**

The overall objective of the WoodWisdom-Net+ is to support the transformation of the European F-BI and sustainable forest management for increasing resource efficiency and adapting to and mitigating climate change effects. This will be achieved by integrating knowledge and technologies of large-scale industrial products and processes, as well as primary production.

The aim is to plan a single joint call for proposals for research, development and innovation in the forest sector with a clear financial commitment from the participating national (or regional) research programmes and the EU. The estimated total funding volume of the joint call is expected to ca. EUR 30 million (share of industry funding EUR 5-10 million).

The main approach in the WW-Net+ is the substitution of non-renewable resources (e.g. materials or fossil fuels), by renewable forestbased solutions to reduce carbon emissions and waste. The joint transnational call will address the whole forest-based value chain in four areas. These are: the sustainable management of forest resources through; their efficient utilisation in industrial processes to; value added products and competitive customer solutions. The exact scope will be defined during the project.

WW-Net+ will base its research, development and innovation funding activities on the processes and experience developed during the preceding ERA-NETs towards streamlined and efficient processes. The preceding ERA-NETs WoodWisdom-Net (2004-08) and

### PROJECT DETAILS

Period	i	From To	2012-11-15 2017-11-14				
Project reference		NMP2-ER-2012-321573					
Programme acronym		FP7-ERANET-2012-RTD					
Topic identifier		KBBE.2012.1.2-08 / NMP.2012.4.0					
Title		ERA-NET Plus on Innovation in the forest- based sector for increasing resource efficiency and tackling climate change with competitive customer solutions					
Contract type		ERA-NET Plus					
Total cost EU contribution		€ 24 242 425 € 8 000 000 maximum					
Number of participants		20					
Coordinator		Finnish Funding Agency for Technology and Innovation TEKES, Finland					
Contact person		llmari Absetz T + 358 2950 55837 E ilmari.absetz@tekes.fi Mika Kallio E mika.kallio@woodwisdom.net					
Website		www.woodwisdom.net					
Participants							
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management BMLFUW						
СН	Federal Department of Economic Affairs FDEA - Commission for Technology and Innovation KTI						
СН	Federal Department for Environment, Transports, Energy and Communication BAFU						
DE	Agency for Renewable Resources FNR						
FI	Academy of Finland AKA						

- FI Ministry of Agriculture and Forestry MMM
- FI Finnish Funding Agency for Technology and Innovation TEKES
- FR Ministry of Agriculture, Food, Fisheries and Rural Affairs MAA
- FR Technological Institute for Forest Cellulose, Construction-wood and Furniture FCBA
- FR French National Institute for Agricultural Research INRA
- FR French Environment and Energy Management Agency ADEME IE Department of Agriculture, Food and the Marine DAFM-COFORD
- LV Latvian Academy of Sciences LAS
- LV Ministry of Agriculture Republic of Latvia ZM
- NO Research Council of Norway RCN
- SE Swedish Energy Agency SWEA
- SE Swedish Governmental Agency for Innovation Systems VINNOVA
- SI Ministry of Education, Science, Culture and Sport MESCS
- SK Ministry of Agriculture and Rural Development of the Slovak Republic MPRV SR
- UK Forestry Commissioners FC

WoodWisdom-Net 2 (2009-12) form the transnational WoodWisdom-Net Research Programme (total funding volume of the launched three calls ca. EUR 50 million) which provides the planned ERA-NET Plus Action with a solid foundation. Looking to the future, the WW-Net+ will continue to improve the delivery of joint activities and has ambitious goals for funding transnational research and offering access to the resources of other countries.

### Consortium

The WoodWisdom-Net+ consists of 20 partners from 12 different countries.

### Mapping and scoping activities

While the ERA-NET scheme supports the coordination of the launch of joint calls for proposals, ERA-NET Plus focuses on funding of the actual R&D-activities. Furthermore, extensive mapping has been carried out under WoodWisdom-Net and WoodWisdom-Net 2 and therefore is not foreseen in the context of this ERA-NET Plus.

# Joint call

### Fourth call 2013-2016

Joint Call 2013-2016 - The 4th Joint Call for Proposals within the WoodWisdom-Net Research Programme

The WoodWisdom-Net Research Programme announced in February 2013 its fourth call for joint European research projects. The indicative total available budget amounts to EUR 24 million (national public funding including EC topup funding of eight million euros). The total call volume with industrial co-funding is estimated to be up to ca. EUR 30 million.

The overarching aim of this 4th call under the

transnational WoodWisdom-Net Research Programme is to support the total transformation of the European F-BI and sustainable forest management to enable it to increase resource efficiency and develop a totally new products scope, while adapting to and mitigating the impacts of climate change.

The main approach in WoodWisdom-Net+ is the substitution of non-renewable resources (e.g. materials or fossil fuels), by renewable forestbased solutions to reduce carbon emissions and waste. The joint transnational call will address all forest-based value chains in four areas. These are: 1) the sustainable management of forest resources through 2) their efficient utilisation in industrial processes to 3) value added products and 4) competitive customer solutions.

The initiative is intended to facilitate collaboration between industry, SMEs. stakeholder associations, research organisations, leading-edge scientists from the wider range of disciplines covering wood material, construction, natural, biological, social, economic and other relevant sciences that will bring their broad expertise to support the transformation of the European forest-based sector and to secure its competitiveness. Importantly, the call will also aim to encourage and make best use of interdisciplinary, systems approaches, and improve the impact and integration of social research and economics in this area.

The funding organisations are particularly keen to encourage innovative transnational proposals from multidisciplinary groups of researchers with optimal combinations of expertise and experience (e.g. including early stage researchers and staff exchange between partners) to address the call topic areas. The participation of commercial and industrial and or other stakeholders – especially small and medium-sized enterprises (SMEs) – is strongly recommended to ensure the relevance of the research to technological development and to the needs of society.





# Annex 1 FP6 and FP7 ERA-NET Actions per Theme

In total 71 ERA-NETs have been funded under FP6. Of the initial FP6 contracts 31 have received or currently receive further funding for coordinating their activities under FP7. A total of 51 ERA-NETs will have started under FP7 on topics that were not covered formerly. Under FP7 a total of 82 ERA-NETs and 23 ERA-NET Plus actions are funded or expected to be funded.

Theme	FP6	FP6/7	FP7	FP7+
Energy	BIOENERGY FENCO-ERA HY-CO INNER PV-ERA-NET	PV-ERA-NET 2	Geothermal ERA-NET SOLAR-ERA.NET SmartGrids	BESTF BESTF2
Environment	AMPERA BONUS BIODIVERSA CIRCLE COASTAL-ERA CRUE ECORD EUROPOLAR IWRM.Net MARINERA NET-BIOME SNOWMAN SPLASH EUWI ERA- NET SKEP	BIODIVERSA 2 CIRCLE-2	ECO-INNOVERA ERA-ENVHEALTH NET-HERITAGE OCEANERA-NET SEAS-ERA	BONUS+ HERITAGE PLUS
Fundamental Sciences	ASPERA ASTRONET ERA-CHEMISTRY Complexity-NET NanoSci-ERA	ASPERA 2		
Health	ALLIANCE-O CoCanCPG ERA-AGE E-RARE ERANANOMED HESCULAEP NEURON NEW-OSH-ERA PRIOMEDCHILD PathoGenoMics	E-RARE 2 ERA-AGE 2 NEURON 2 ERANANOMED 2	EUROCOURSE HIVERA Infect-ERA TRANSCAN	
ІСТ			CHIST-ERA CHIST-ERA 2 DC-NET SEERA-EI	BiophotonicsPlus OLEA+ PIANO+
INCO	CO-REACH EULANEST SEE-ERANET		BS-ERA.NET CONCERT-Japan ERANET-LAC ERANETMED ERA.Net RUS INNO INDIGO KORANET NEW Indogo	ERA.Net RUS Plus SEE-ERA.NET Plus

### ERA-NET and ERA-NET Plus Actions per Theme under FP6 and FP7.
Industrial Technologies / SMEs	AERTOS COMPERA CORNET EraSME ERA-SPOT ERABUILD eTRANET EUROTRANSBIO EURYI iMERA MANUNET MATERA MNT-ERA.NET SUSPRISE VISION WORK-IN-NET WOODWISDOMNET	CORNET 2 EraSME 2 MANUNET 2 MNT-ERA.NET 2 WOODWISDOMNET2	CAPITA CROSSTEXNET ERACOBUILD ERA-MIN ETB-PRO INCOMERA LEAD ERA M-ERA.NET SAFERA SIINN	iMERA-Plus MATERA+ NanoSci-E PLUS <b>WOODWISDOMNET+</b>
Infrastructures			ERA-Instruments NuPNET e-InfraNET	
KBBE	ACENET CORE ORGANIC ERA-ARD ERA-IB ERA-PG ERASYSBIO EUPHRESCO SAFEFOODERA MARIFISH	CORE ORGANIC 2 ERA-IB 2 ERA-ARD 2 EUPHRESCO 2	ANIHWA ARIMNET ARIMNET 2 C-IPM EMIDA ERA-CAPS ERA-MBT ERASYNBIO ERASYSAPP COFASP RURAGRI SUMFOREST SUSFOOD ICT-AGRI ICT-AGRI 2 FORESTERRA	ERASYSBIO+ CORE ORGANIC PLUS FACCE ERA-NET+
Security	EU-SEC	THE HOUSE		
SSH/SIS	ERA-SAGE FORSOCIETY HERA NORFACE		GENDER-NET ERNEST ERANID HERA-JRP	HERA JRP CE NORFACE PLUS WSF
Transport	AIRTN ERA-NET ROAD ERA-NET TRANSPORT ERA-STAR REGION URBAN-NET MARTEC	AIRTN 2 ENT III ERA-NET ROAD 2 ERA-NET TRANSPORT 2 MARTEC 2		Electromobility+

ERA-NET and ERA-NET Plus Actions per Theme under FP6 and FP7 including horizontal ones reassigned to the closest Theme (data DG RTD). The actions in bold are featured in this book.

# Annex 2 Overview of bioeconomy ERA-NET Actions

The tables in this annex give an overview of the ERA-NET actions featured in this book.

FP6 supported the coordination and the cooperation of research activities carried out at national or regional level through an open call. All disciplines were supported under this central ERA-NET scheme. In total 71 actions have been supported. For this book we selected those FP6 ERA-NETs, 14 in total, that covered topics now considered as core topics in the bioeconomy area. Within this set actions the core themes covered are food, agriculture, fisheries and biotechnologies. Also taken on board are some 'neighbouring' networks from environmental or material sciences that have substantial bioeconomy relevance.

Under FP7 the thematic directorates adopted the ERA-NET scheme and topics were included in thematic work programmes. In this book all ERA-NET actions from the FP7 theme 2 Food, Agriculture and Fisheries, and Biotechnology (the KBBE Work Programmes) are included, as well as some neighbouring networks with substantial relevance to the bioeconomy from theme 6 Environment (including Climate Change) and from Theme 4 which included the Materials area. Furthermore, there were under FP7 also ERA-NET topics in 'horizontal' calls and those relevant to the bioeconomy are included as well in this book. In total 24 FP7 ERA-NETs actions are described in the book.

Some ERA-NETs have been preceded by a preparatory actions. There is currently one preparatory action on going on a bioeconomy topic. As this preludes an ERA-NET on this topic, the preparatory action is taken up in the book.

The last table gives on overview of the bioeconomy relevant ERA-NET Plus actions. A Plus action implements one transnational call with a Commission top-up funding of at maximum 33% of the total call budget. The funds come from various thematic budgets.

#### Bioeconomy ERA-NET Actions supported under FP6.

Ordered chronologically to their start date.

ERA-NET	Call identifier <sup>1</sup>	Project reference	EU contribution	Start – end date
WOODWISDOM-NET. Networking and Integration of National Programmes in the Area of Wood Material Science and Engineering	ERA-NET/1/CA-SSA-A	510206	2 195 180	2004.01.01 - 2008.12.31
SNOWMAN. Sustainable Management of Soil and Groundwater	ERA-NET/1/CA-SSA-A	3219	1 046 032	2004.01.01 - 2009.06.30
ERA-NET Plant Genomics. ERA-NET Plant Genomics	ERA-NET/1/CA-SSA-A	510189	2 900 000	2004.01.01 - 2009.12.31
SAFEFOODERA. European Excellence in Food Safety Research Programming	ERA-NET/1/CA-SSA-B	515726	3 740 691	2004.08.01 - 2009.05.31
ACENET. Coordination and Cooperation in the Field of Applied Catalysis	ERA-NET/1/CA-SSA-B	11784	2 706 403	2004.09.01 - 2010.08.31
CORE ORGANIC. Coordination of European Transnational Research in Organic Food and Farming	ERA-NET/1/CA-SSA-B	11716	1 200 060	2004.10.01 - 2007.09.30

EUROTRANS-BIO. EUROpean Network of TRANSnational Collaborative RTD for SMEs Projects in the Field of BIOtechnology	ERA-NET/1/CA-SA-1-B	11718	2 893 950	2004.10.01 - 2008.12.31
ERA-NET BIOENERGY. ERA-NET BIOENERGY.	ERA-NET/1/CA-SSA-B	515738	2 651 593	2004.10.01 - 2010.12.31
ERA-ARD. The Agricultural Research for Development (ARD) Dimension of the European Research Area (ERA)	ERA-NET/1/CA-SSA-C	517837	3 452 582	2005.04.01 - 2009.12.31
BiodivERsA. An ERA-NET in Biodiversity Research	ERA-NET/1/CA-SSA-C	517836	2 837 440	2005.05.01 - 2010.04.30
MariFish. The Coordination of European Marine Fisheries Research Programmes	ERA-NET/1/CA-SSA-D	25989	2 997 070	2006.01.16 - 2011.01.15
ERASYSBIO. ERA-NET for Systems Biology	FP6-2002-ERA-NET-1-CA- SSA-D	23212	2 950 000	2006.02.01 - 2011.02.28
EUPHRESCO I. Coordination of European Phytosanitary (Statutory Plant Health) Research	ERA-NET/1/CA-SSA-E	36212	2 633 991	2006.05.01 - 2010.07.31
ERA-IB. Towards an ERA in Industrial Biotechnology	ERA-NET/1/CA-SSA-E	35581	2 513 644	2006.05.01 - 2011.12.31

<sup>1</sup> The FP6 ERA-NET actions were funded through the open call of the ERA-NET scheme.

Specific programme: integrating and strengthening the foundations of the European Research Area. Thematic priority/domain: Support for coordination activities. Call title: Supporting the cooperation and the coordination of research activities carried out at national or regional level (ERA-NET scheme). Date of publication: 17 December 2002. Closure dates: 03.06.2003 (A); 02.03.2004 (B); 05.10.2004 (C); 02.03.2005 (D); 04.10.2005 (E).

#### Bioeconomy ERA-NET Actions supported under FP7.

Ordered chronologically to their start date.

ERA-NET	Topic identifier <sup>2</sup>	Project reference	EU contribution	Start – end date
EMIDA. Coordination of European Research on Emerging and Major Infectious Diseases of Livestock	KBBE-2007-1-3-02	219235	997 218	2008.04.01 - 2011.12.31
ARIMNET. Coordination of Agricultural Research in the Mediterranean	KBBE-2007-1-2-07	219262	999 999	2008.10.01 - 2013.03.31
ETB-PRO. EUROpean Programme for TRANSnational R&D&I Cooperations of BIOtech SMEs	ERANET.2008.1	235368	3 166 533	2009.01.01 - 2012.12.31
WOODWISDOMNET-2. Networking and Integration of National Programmes in the Area of Wood Material Science and Engineering in the Forest-Based Value Chains	NMP-2008-4.0-14	235066	1 332 960	2009.03.01 - 2012.02.29
ICT-AGRI. Coordination of European Research on ICT and Robotics in Agriculture and Related Environmental Issues	ERANET.2008.1	235460	2 237 008	2009.05.01 - 2013.07.31
RURAGRI. Facing Sustainability: New Relationships Between Rural Areas and Agriculture in Europe	KBBE-2008-1-4-10	235175	999 565	2009.10.01 - 2013.09.30
CORE ORGANIC II. Coordination of European Transnational Research in Organic Food and Farming Systems	KBBE.2009.1.4-09	249667	999 967	2010.03.01 - 2013.02.28
CIRCLE-2. Climate Impact Research and Response Coordination for a Larger Europe	ENV.2009.1.1.6.4	249685	1 999 331	2010.05.01 - 2014.04.30

SEAS-ERA. Towards Integrated European Marine Research Strategy and Programmes	ENV.2009.2.2.1.2	249552	1 999 927	2010.05.01 - 2014.04.30
ERA-ARD II. The Agricultural Research for Development Dimension of the European Research Area	KBBE-2009-1-4-08	249664	971 710	2010.10.01 - 2013.03.31
BIODIVERSA2. Cooperation and Shared Strategies for Biodiversity Research Programmes in Europe	ENV.2010.2.1.4-2	266546	1 999 600	2010.11.01 - 2014.10.31
EUPHRESCO II. EUROPEAN PHYTOSANITARY RESEARCH COORDINATION II	KBBE.2010.1.2-06	266505	999 997	2011.01.01 - 2014.03.31
ERA-CAPS. ERA-NET for Coordinating Action in Plant Sciences	KBBE.2011.1.1-05	291864	1 989 658	2011.12.01 - 2014.11.30
SUSFOOD. Sustainable Food Production and Consumption	KBBE.2011.2.6-02	291766	1 999 320	2011.12.01 - 2014.11.30
ERA-IB-2. ERA-NET for Industrial Biotechnology 2	KBBE.2011.3.3-01	291814	1 999 992	2011.12.01 - 2015.11.30
ERASYNBIO. Development and Coordination of Synthetic Biology in the European Research Area	KBBE.2011.3.6-06	291728	1 997 022	2012.01.01 - 2014.12.31
CAPITA. Catalytic Processes for Innovative Technology Applications	NMP-FP7-2010-4-0-9	266543	1 499 038	2012.01.01 - 2015.12.31
FORESTERRA. Enhancing FOrest RESearch in the MediTERRAnean through improved coordination and integration	KBBE.2011.1.2-08	291832	1 997 795	2012.01.01 - 2015.12.31
ANIHWA. Animal Health and Welfare	KBBE.2011.1.3-05	291815	1 999 918	2012.01.01 - 2015.12.31
ERASysAPP. Systems Biology Applications	KBBE.2012.3.6-01	321567	1 999 862	2013.01.01 - 2015.12.31
COFASP. Strengthening Cooperation in European Research on Sustainable Exploitation of Marine Resources in the Seafood Chains- ERANET	KBBE.2012.1.2-13	321553	1 999 912	2013.02.01 - 2017.03.31
ERA-MBT. MARINEBIOTECH Towards integrated European Marine Research Strategy and Programmes	KBBE.2013.3.201	604814	1 999 838	Autumn 2013 - 2017.12.31 (Expected)
SUMFOREST. (under negotiation) Tackling the Challenges in the Implementation of Sustainable and Multifunctional Forestry through Enhanced Research Coordination for Policy Decisions	KBBE.2013.1.4-01		2 000 000 (expected)	End 2013 - end 2017
ICT-AGRI 2. Information and Communication Technologies and Robotics for Sustainable Agriculture ERA-NET	KBBE.2013.1.4-04	618123	1 997 106	2014.01.01 - 2017.12.31
C-IPM. (under negotiation). Integrated Pest management (IPM) ERA-NET	KBBE.2013.1.4-02		1 998 228	
ARIMNet2. (under negotiation). Coordination of Agricultural Research in the Mediterranean	KBBE.2013.1.4-03	618127	1 998 700 (requested)	2013.12.01 - 2017.11.30 (expected)
PreSto GMO ERA-NET. Preparatory steps towards a GMO research ERA-NET	KBBE.2013.3.5-02	612739	996 739	2013.09.01 - 2015.08.31

<sup>2</sup>In FP7 individual ERA-NET topics were included in the thematic work programmes. All ERA-NETs of the KBBE workprogrammes are listed here as well as those from the environmental and the NMP themes considered to have substantial relevance to the bioeconomy. There were also horizontal calls.

### Bioeconomy ERA-NET Plus Actions supported under FP7.

Ordered chronologically to their start date.

ERA-NET PLUS	Topic identifier	Project reference	EU contribution	Start – end date
ERA Sysbio+. The consolidation of systems biology research stimulating the widespread adoption of systems approaches in biomedicine, biotechnology, and agri-food	ERANET.2008.2	235447	5 500 000	2008.10.01 - 2013.06.30
WOODWISDOM-NET+ Pacing Innovation in the Forest-Based Sector. Innovation in the forest-based sector for increasing resource efficiency and tackling climate change with competitive customer solutions	KBBE.2012.1.2-08 / NMP.2012.4.0	321573	8 000 000 maximum	2012.11.15 - 2017.11.14
BESTF 1. BioEnergy Sustaining the Future	ENERGY.2012.10.1.1	321477	15 000 000	2013.01.01 - 2017.12.31 (Expected)
CORE Organic Plus. Coordination of European Transnational Research in Organic Food and Farming Systems Plus	KBBE.2013.1.4-06		3 000 000	2013.12.01 - 2018.11.30
FACCE-ERA-NET+ (under negotiation). Food security, Agriculture, Climate Change ERA-NET plus	KBBE.2013.1.4-05		4 000 000	01.10.2013 - 30.09.2018
BESTF 2 (under negotiation). BioEnergy Sustaining the Future 2	Energy 2013.10.1.1	618046	7 289 552	2013.10.01 (Expected) - 2018.09.30 (Expected)

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ERA-NET	Research field	Start-end	AT BE	BE	Ă	ŝ	ш ш	FR GR	≝	E	z B	NL PT	З	ž	BG CY	γ cz	8	HR HU	5	≥	Ť	PL RO	s	ž	AL B	BA CH	S	MK NO	۲ د	S	Ĕ	
ANIHWA	Animal health	2012.01.01-2015.12.31	Ч	٩	٩	٩	۵	L U	٩	۵.	ι.	д.	٩	٩	Р	۵.			٩							٩		٩.	Р			
ARIMNET	Food security	2008.10.01-2013.03.31				٩	-	ط ں		۵.		۵.			٩														۵.		P DZ,	DZ, EG, MA, TN
ARIMNET2*	Food security					٩		۵ ا		٩		۵.			۵.			۵.			٩			٩	۵.				۵.		P DZ,	DZ, EG, MA, TN
C-IPM	Public health		Ч Ч	۵.	٩	٩	۵.	U	٩	٩	4	۵.	٩	٩		۵.	٩	ιL.	с с			۵.				٦	٩	۵.	۵.		۵.	
COFASP	Sustainable production	2013.02.01-2017.01.31	۵.	٦	υ	٦	۵	Р	۵.	٩	±	٩		۵.								٩.						۵.	۵.			
CORE ORGANIC II	Sustainable production	2010.03.01-2013.08.31	Ч Ч	۵.	υ	٦	۵.	0	۵.	٩	Ч	۵.	٩	۵.		۵.	٦		۵.	۵.			۵.			٦		۵.			۵.	
CORE ORGANIC PLUS	Sustainable production	2013.12.01-2018.11.30	۵.	٩	υ	٩	۵.	Ъ		٩	ц.	۵.	٩	٩			٩		۵.	٩		Р	۵.			٦		۵.	۵.		۵.	
EMIDA	Animal health	2008.04.01-2011.12.31	₽.	٩	۵.	٩	۵.	c	٩	۵.	4	۵.	٩	υ	₽.	<u>م</u>		0	۵.							٦		₽.	۵		۵	
ERA-ARD II	Food security	2010.10.01-2013.09.30	Ч	٩	٩	٩	۵.	0		٩	0	۵.		۵.				4	Р							٦					۵.	
ERA-CAPS	Natural resources	2011.12.01-2014.11.30	Ч Ч	۵.	٩	٩	-	c		٩	4	۵.		U			٩	ι.	۵.	۵.		д	0					۵.	۵.	٩	Ą	CA, NZ, IN°, JP°, USA <sup>c</sup>
ERA-IB-2	Industrial biotechnology	2011.12.01-2015.11.30	٩	U	٩	٩	0	Ч		0	ш.	Р.	0	٩				0	0	0		Ч	0					۵.	Р.		P RU	
ERA-MBT	Marine biotechnology	2014.01.01-2017.12.31	۵.	٩	٩	٩		0	۵.	٩		۵.	٩									₽.	٩				٩	U			NC	
ERASYNBIO	Synthetic biology	2012.01.01-2014.12.31	Р	U	٩	٩	۵.	Ч			L.	Ч		٩						٩			٩			٩		٩.	Ч			
ERASYSAPP	Systems biology	2013.01.01-2015.12.31		U		٩	-	۵.			Ч	д	٩		□.		٩			۵		□_				٩	٩	₽.				
ERASYSBIO+	Systems biology	2008.10.01-2013.06.30	4	U		٩	4	۵.			Ч.	۵.		۵.									۵.						۵.			
EUPHRESCO II	Food security	2011.01.01-2014.03.31	Ч	٦	۵.	٦	4	Ч	۵.	٩	4	Ч.		U	۵.	۵.	٦	0	9		0		٦			∟					P RU,	RU, UA
FACCE-ERA-NET+*	Climate change	2013.10.01-2018.09.30	۵.	٦	٩	٩	٩.	U.	۵.	٩	4	۵.	٦	۵.	٦	۵.	٩					٩				۵.		۵.	Р.			
FORESTERRA	Ec. & soc. development	2012.01.01-2015.12.31				υ	-	с с	۵.			۵.			۵.			۵.					۵.								P DZ	DZ. MA, TN
I CT-AGRI	Sustainable prodcution	2009.05.01-2014.03.31	۵	٦	υ	٦	۵	Ч	۵.	٩	±	4	0	0						٩	۵.	0		0		۵.			۵.		۵.	
ICT-AGRI-2	Sustainable production	2014.01.01-2017.12.31	٩.	٩	υ	٩	۵.	д	۵.	٩	<u></u>	д.		۵.						۵.	٩					٩.			۵.		д.	
PreSto GMO ERA-NET	Genectic modification	2013.09.01-2015.08.31	d.	υ		٩		P		٩	4	д.	٩	۵.	д.	٩.						д				٩					д	
RURAGRI	Sustainable production	2009.10.01-2013.09.30	Ч	٩	٩	٩	-	U	۵.	٩	4	д	٩	٩	٩			Ľ.	д	٩		۵.	٩			٩			۵.		д	
SUMFOREST*	Sustainable production	2013.12 -2017.12	U	٩		٩	٩.	Р	۵.	٩	0	0	٩	۵.				LL.	Р			۵.	٩	٩	0	٩		Р	Ь		RU°	0
SUSFOOD	Public health	2011.12.01-2014.11.30	۵.	۵.	۵.	٩	٩.	U	۵.		4	Ч		٩			٩					д	٩					д.	д.		Ч	
W00DWISDOM-NET 2	Climate change	2009.03.01-2012.02.29		٩		٩	U	۵.	۵.	٩			٩					ш	Р.	٩			۵.					۵.	0		д.	
W00DWISD0M-NET+	Climate change	2012.11.15-2017.11.14	д	۵.			U		۵.				٩	٩						۵.			۵.	٩		٩		₫.	д			
ETB-PRO	Biotechnology	2009.01.01-2013.12.31	L U	٩		٩	а. С	д		٩		д						LL.	д.										0		RU <sup>o</sup>	0
BIODIVERSA 2	Climate change	2010.11.01-2014.10.31	Р	٩		٩	ĺ	U			±	Ч	٩	٩	۵.		٩	ш	Ч.			0						₽.	д		д.	
CIRCLE-2	Climate change	2010.05.01-2014.04.30	Ъ	٩	0	٩	٩.	Ч	۵.	٩	4	U d	٩	۵.	0		٩	٩	0	0		0				0		0	P		Ч	
SEAS-ERA	Natural resources	2010.05.01-2014.04.30	٩	٩		υ		Ч	۵.	٩	<u>ш</u>	ط 0		۵.	д.						٩	٦					۵.	₽.	д		P GE,	GE, UA
BESTF1	Energy security	2013.01.01-2017.12.31		٦	٩	٩	۵.					۵.	٦	U												۵.						
BESTF2*	Energy security	2013.12.01-2018.11.30		٩	۵.						4	0	۵.	υ												۵.						
CAPITA	Technology applications	Technology applications 2012.01.01-2015.12.31	0	0		٩		Ч	0	٩	U	0		0																		
In this overview such as observe	of countries parti. r, associate, third	In this overview of countries participating in bioeconomy-relevant FP7 ERA-NET and ERA-NET Plus actions 'C' indicates the coordinating country, 'P' indicates partner countries, and 'O' indicates other relations such as observer, associate, third party or contributing partner. In case of multiple organisations participating from one country, the highest involvement level (C>P>O) is indicated.	ny-rel J parti	leva ner.	ant Fl In ca	P7 El ase c	RA-N of mu	IET a ultipl	e org	RA-N janis	JET Pl	us ac Is pai	ction rticip	s 'C' i atin <u>c</u>	ndica ) fron	ates t n one	the co	oordir ntry,	natin the ŀ	g cou ìighe	st in	'P' in Olvei	dicat men:	tes p t leve	artne el (C>	er cou	is in	s, and Idicat	d 'O' ii ed.	ndica	tes of	ther relatio
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# Annex 3 ERA-NET country participation in FP7 ERA-NETs

## Annex 4 List of country codes

AL	Albania
AT	Austria
BA	Bosnia Herzegovina
BE	Belgium
BG	Bulgaria
CA	Canada
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
DZ	Algeria
EE	Estonia
EG	Egypt
ES	Spain
FI	Finland
FR	France
GE	Georgia
GR	Greece
HR	Croatia
HU	Hungary
IS	Iceland
IE	Ireland
INT	International organisation
IL	Israel
IT	Italy
LB	Lebanon
LT	Lithuania
LU	Luxembourg
LV	Latvia
MA	Morocco
MK	Macedonia
MT	Malta
NC	New Caledonia
NL	The Netherlands
NO	Norway
NZ	New Zealand
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
RU	Russia
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
TN	Tunisia
UA	Ukraine
UK	United Kingdom

European Commission

### Bioeconomy ERA-NET Actions European Research Area Networks of the 6th and 7th Framework Programmes

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The FP7-funded Coordination Action PLATFORM brings together all existing Bioeconomy coordination networks from FP6 and FP7 with the aim to improve exchange and cooperation between all relevant actors within related initiatives with the aim of strengthening their contribution to the European Research Area.

The PLATFORM consortium consists of 13 partners from eight European Member and Associated countries. Started in January 2012 the project runs for 36 months.

PLATFORM has three distinct and mutually reinforcing objectives: establish a networking platform (through common workshops and a discussion forum), stimulate mutual learning (through a master class and a guidance based on good practices) and delivering of a Vision Paper and Roadmap for long-term cooperation and synergy among and between ERA-NETs and other research policy actors such as JPIs, SCAR, and KBBE Technology Platforms.

This publication contains factual information on all ERA-NET and ERA-NET+ projects supported by the KBBE theme of FP7 as well as related ERA-NET predecessors funded under FP6.

Studies and reports



