

# CORE organic

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## Coordination of European Transnational Research in Organic Food and Farming

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### FINAL PROJECT REPORT

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Final Project Report

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Should the publication of corrigenda becomes necessary, there will be posted at the project website

[www.COREOrganic.org](http://www.COREOrganic.org)

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## EXECUTIVE SUMMARY

### Abstract:

Research in organic food and farming is a fairly new, but rapidly expanding discipline on the European research scene. One of the problems faced by the authorities seeking to initiate research programmes in organic food and farming is that the present research effort in Europe is characterised by small research communities, which are often scattered and fragmented both geographically and institutionally. Therefore a gathering of the dispersed expertise to a critical mass in order to increase the competitive quality and relevance of the research as well as the dissemination and use of the research is needed.

CORE Organic is a 3-year EU FP6 Coordination Action with the aim of improving the coordination of transnational research in organic food and farming. The project was carried out by 13 public funding bodies representing the 11 countries, Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, Switzerland and the UK.

The overall objective of CORE Organic was to gather a critical mass and enhance the quality, relevance and utilisation of resources in research in organic food and farming in the partner countries, and to establish a joint pool of at least 3 million € per year by the end of the project for funding of selected transnational research projects. This should be accomplished by implementation of the following four objectives:

1. Increased exchange of information and establishment of a common open web based archive
2. Coordination of existing research and integration of knowledge
3. Sharing and developing best practice for evaluating organic research
4. Identification and coordination of future research

Objective one and two were reached by means of various tools:

- Establishment of an internet and intranet site for coordination and communication externally and internally, [www.coreorganic.org](http://www.coreorganic.org).
- Issuing of 8 electronic Newsletters
- Building and running of a common Internet portal on research in organic food and farming, [www.coreportal.org](http://www.coreportal.org) with information on history, organisation, research programmes, financing, research facilities, initiation of research, selection and evaluation, utilisation of research and scientific education plus research schools in the 11 partner countries lining to further information.
- Extending the open access electronic archive for research publications related to organic production, [www.orgprints.org](http://www.orgprints.org), which was established by DARCOF in 2002, to include research publications etc. from all the partner countries. The archive is maintained by the three partners, BLE (DE), DARCOF (DK) and FiBL (CH), and each partner has nominated a national editor being responsible for depositing publications and other relevant information from their country. In 2007 Organic Eprints contained more than 200 descriptions of research organisations, programmes and facilities, 500 descriptions of research projects and more than 10.000 research papers, and it had 200.000 – 300.000 visits per month (autumn 2007).
- Conducting of a workshop in May 2006 at the Joint Organic Congress in Odense, Denmark to identify and discuss the most important research topics of common interest for the joint transnational CORE Organic call.

Hereby topics for increased future cooperation as well as new research areas suitable for transnational cooperation and development of training schemes for research personnel and experts were identified.

The 11 partner countries organises the funding in different ways. Some countries mainly fund organic research through universities or public/private research centres (CH, DE and FR), while others fund organic research through general research funding schemes or specific organic funding schemes with irregular or irregular calls every 1 to 5 years or up to several times a year (NO). All the partner countries except IT and NO had organic research farms (76 in total), which, however had a large number of experimental fields. Long term experiments were established in all countries except for NL. Fields for nutrient leaching experiments were only established in the Nordic countries (DK, FI, NO and SE). Eight countries (AT, CH, DE, DK, FI, NO, SE and UK) had organic animal research facilities, of which 3 for beef production, 14 for dairy production, 7 for pig production, 7 for poultry production and 5 for sheep production. The most important research topics identified among the partners for a 5 year period within 2000 – 2007 were within the categories, “crop husbandry”, “animal husbandry”, “farming systems” and “food systems”, while less important re-

search topics were “environmental aspects”, “values, standards and certification”, “knowledge management” and “soil science.

Objective three focused on the joint development of best practices for evaluation and quality assurance at project and programme level to ensure high quality research in organic food and farming. To reach this objective a questionnaire investigation involving various stakeholder in the 11 partner countries was carried out, revealing that the evaluation criteria used for organic research are quite similar in the partner countries and close to the ones used for evaluation of general research programmes. In 8 countries the research proposal evaluation is carried out anonymously (i.e. the evaluation experts are not known to the applicants), while the evaluation experts are known in 3 countries, CH, IT and SE. Reporting and monitoring of projects is very similar in all countries, requesting annual reporting and a final report, except for FI and NO, which request semi annual reporting. Based on these findings a concept for the evaluation of the proposals for the 1<sup>st</sup> CORE Organic call was developed and a list of excellent European experts for peer reviewing of transnational CORE Organic pilot project proposals.

Objective four concerned identification and coordination of future research. This objective was reached by means of identifying research topics of common high priority and developing plans for future coordination and agreeing on a range of procedures for transnational funding. Out of 7 high priority research topics the following 3 topics were selected for a joint transnational pilot call:

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

In 2007 the CORE Organic partners launched a pilot call for joint transnational research projects within these 3 common research topics. Out of 37 project proposals 8 were selected for transnational funding by means of a virtual common pot approach, and all partner countries participated in the transnational funding. The overall funding budget for the 8 3-year projects was about 8.3 million EUR – close to the aim of 3 million EUR/year. The 8 CORE Pilot Projects, which are running in the period 2007 - 2010 are:

**AGTEC-Org: Methods to improve quality in organic wheat**

**ANIPLAN: Planning for better animal health and welfare**

**COREPIG: A tool to prevent diseases and parasites in organic pig herds.**

**FCP: How to communicate ethical values.**

**iPOPY: Innovative public organic food procurement for youth.**

**PathORGANIC: Assessing and Reducing Risks of Pathogen Contamination in Organic Vegetables.**

**PHYTOMILK: What makes organic milk healthy?**

**QACCP: How to assure safety, health and sensory qualities of organic products.**

(See also [www.coreorganic.org/research/index.html](http://www.coreorganic.org/research/index.html))

After the selection procedure an evaluation of the evaluation criteria and the procedure used for the CORE Organic pilot call was made by means of a questionnaire investigation involving among others, the applicants and evaluation experts, and by means of a literature review. This study showed that the 19 evaluation criteria clustered within six main categories fulfilled the expectations of most target groups, but interdisciplinarity and innovative aspects should be addressed in a more appropriate way. Besides the gap between the initial scientific evaluation and the final selection of the CORE Pilot projects should be improved and made more transparent and the way national priorities are integrated in the decision-making process should also be considered in more detail.

At a kick-off meeting for the 8 CORE Organic projects in September 2007 it was decided by the partners to continue the cooperation in a CORE Organic Funding Body Network after the end of the project in order to monitor and evaluate the 8 research pilot projects and to broaden and deepen the cooperation between European organic research funding bodies in the future.

**Project logo and web page:**



[www.coreorganic.org](http://www.coreorganic.org)

# 1. INTRODUCTION

## 1.1 Objectives of CORE Organic

The public research and development in organic food and farming (OFF) in Europe has been scattered and fragmented both geographically and institutionally with small research communities, for which reason there has been a need for gathering of the dispersed expertise to a critical mass in order to keep and increase the competitive quality of European organic research and development.

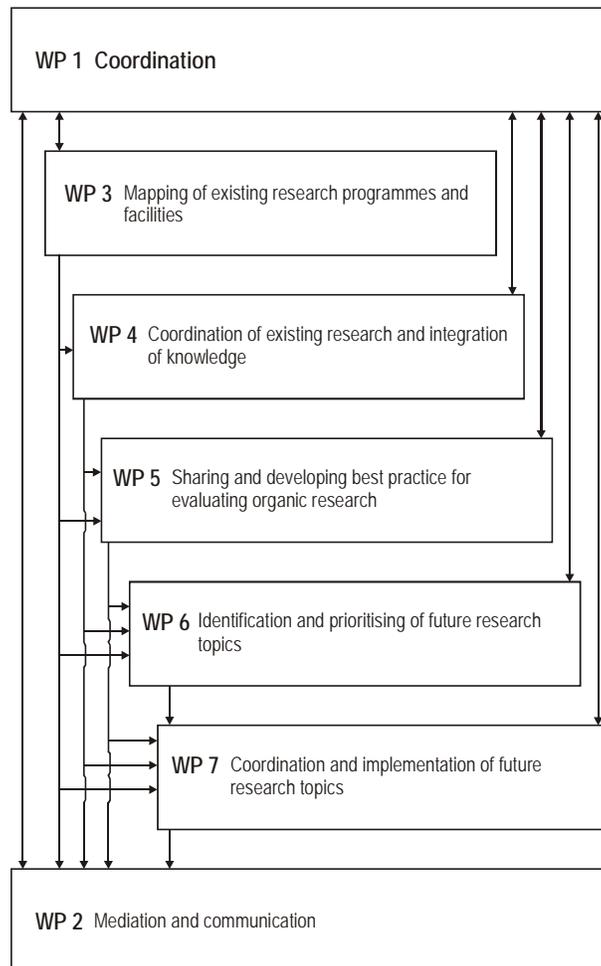
The overall objective of CORE Organic was to gather the critical mass and enhance the quality, relevance and utilisation of resources in European research in organic food and farming. The ultimate goal was to establish a joint pool of at least 3 million € per year by the end of the project for funding of selected transnational research projects. This should be accomplished by implementation of the following four objectives:

1. Increased exchange of information and establishment of a common open web based archive
2. Coordination of existing research and integration of knowledge
3. Sharing and developing best practice for evaluating organic research
4. Identification and coordination of future research

## 1.2 Project structure

The project consisted of 7 work packages as shown in the Perth diagram in figure 1:

Figure 1: Perth Diagram showing interconnection of Workpackages (WP's), and the major flow of information within the project.



### 1.3 Partner organisations and responsibilities (WP1)

No	Acronym	Organisation	Country	Team members
1	DARCOF-FAS-AU-DK & DFFE-DK	Danish Research Centre for Organic Food and Farming/Faculty of Agricultural Sciences, University of Aarhus  Danish Food Industry Agency	Denmark	Erik Steen Kristensen, Lizzie Melby Jespersen, Claus Bo Andreasen, Hugo Fjelsted Alrøe, Jens Grønbech Hansen, Margrethe Balling Høstgaard, Signe Herbers Poulsen Morten Lautrup Larsen
2	FOAG-CH / *FiBL	Swiss Federal Office for Agriculture *Research Institute of Organic Agriculture, Switzerland	Switzerland	Urs Gantner, *Urs Niggli, *Thomas Alföldi, *Helga Willer, *Florian Ackermann, *Ute Williges
3	BMVEL-DE	Federal Ministry of Consumer Protection, Food and Agriculture	Germany	Elisabeth Bänder
4	Defra-UK	Department for Environment, Food and Rural Affairs	United Kingdom	Donal Murphy-Bokern, Flavie Salaun, Lucy Barnard
5	MMM-FI	Ministry of Agriculture and Forestry	Finland	Maakku Järvenpää, Suvi Ryyänen, Arja Nykänen
6	BMLFUW-AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management	Austria	Elfriede Fuhrmann, Anita Silmbrod, Manuela Kienegger
7	Formas-SE	Swedish Research Council for Environment, Agricultural Science and Spatial Planning	Sweden	Ulrika Geber, Karin Ullvén, Ulf Westerlund, Hans-Örjan Nohrstedt, Nilla Nilsson Linde, Sara Österman, Miriam Karlsson
8	RCN-NO *BIOFORSK	The Research Council of Norway *Norwegian Institute for Agricultural and Environmental Research	Norway	Kristin Danielsen, Johanne Schjøth, *Anne-Kristin Løes
9	MinLNV-NL	Ministry of Agriculture, Nature and Food Quality	The Netherlands	Tibbe Breimer, Susanne van der Meulen, Janneke A. Hoekstra, Eric Regouin
10	MiPAAF-IT *CRA-RPS	Ministry of Agriculture and Forestry  Agricultural Research Council- Experimental Institute for Plant Nutrition, Rome	Italy	Francesco Zecca, Serenella Puliga, *Annamaria Stella Marzetti, *Stefano Canali
11	MAAPAR-FR	Ministry of Agriculture	France	Hervé Bossuat, Phillipe Vissac, Claire Hubert
12	BLE-DE	Federal Agency for Agriculture and Food	Germany	Stefan Lange, Birgit Ditgens, Elke Saggau, Ute Williges, Shilpi Saxena, Sabrina Hachenberg
13	INRA-FR	National Institute for Agricultural Research	France	Bertil Sylvander, Stéphane Bellon, Annick Diolez, Coralie Stanislère Julien Blanc

\* = Third parties

The consortium ended up consisting of 13 partners from 11 countries, because it turned out to be necessary to include a new partner in two countries (BLE in Germany and INRA in France), a new subcontractor in one country (the Netherlands) and a third party in three countries (Italy, Norway and Switzerland). These changes in the consortium were solved by 3 contract amendments. Besides, a 4<sup>th</sup> amendment was made due to the merging of the coordinator, DARCOF-DIAS (Danish Institute of Agricultural Sciences) with the University of Aarhus from January 1, 2007 making DIAS the Faculty of Agricultural Sciences, University of Aarhus.

#### **Coordinator contact details:**

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 Administrative coordinator: Lizzie Melby Jespersen (From 01.08.2007 also scientific coordinator)  
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#### **Workpackage managers and co-managers**

WP	WP-leader	Country	WP co-leader	Country
1	Erik Steen Kristensen/ Lizzie Melby Jespersen	DK	Urs Niggli	CH
2	Claus Bo Andreasen	DK	Karin Ullvén	SE
3	Stefan Lange / Birgit Ditgens	D	Arja Nykänen	FI
4	Arja Nykänen	FI	Stefano Canali	IT
5	Urs Niggli /Thomas Alföldi	CH	Bertil Sylvander / Stéphane Bellon	FR
6	Donal Murphy-Bokern / Flavie Salaun Lucy Barnard	UK	Stefan Lange / Birgit Ditgens	D
7	Ulrika Geber	SE	Anita Silmbrod	AT

The overall objectives were to be achieved through the 7 Work packages (WP's). A WP-leader assisted by a WP co-leader managed each WP. The WP-leaders were responsible for the delivery of milestones and deliverables from the WPs, as well as for the communication with the parties participating in the WPs. The WP co-leaders assisted the WP leaders in timely delivery of milestones and deliverables.

The overall management of the project was done at two levels by means of a governing board and a management board

#### **The Governing Board (GB)**

The Governing Board included the coordinator and a leading person representing the funding body for national research programmes (e.g. a Ministry) from each participating country.

The GB was responsible for:

- Evaluation and approval of results and progress obtained in the individual WP's.
- Approval of reallocation of resources or re-delegation of work between Workpackages.
- Approval of procedures for transnational funding.
- Communication with stakeholders and integration of opinions from these.
- Communication with and approval of new participant countries in CORE Organic.

### **The Management Board (MB)**

The Management Board was supposed to include the coordinator, the leader, and the co-leader of each Workpackage. However it was soon decided that the MB should be open to representatives from all partners, because the MB was the main technical working group where necessary common decisions were taken and therefore it was important for the communication and decision making that all partners were represented.

### **1.4 Project outcome**

The project produced a project webpage, [www.coreorganic.org](http://www.coreorganic.org) from where there is access to all the results of the project.

The project produced 9 reports:

- European Research in Organic food and farming – reports on organization and conduction of research programmes in 11 European countries (2006): (WP3)
- Analysis of facilities in OFF research in participating countries of CORE Organic (2006): (WP4)
- Analysis of OFF research topics in CORE Organic participating countries (2006): (WP4)
- Report on improved use of research facilities and topics relevant for integration and training schemes (2007): (WP4)
- Sharing and developing best practice for the evaluation of research in organic food and farming (2005): (WP5)
- Scientific evaluation of trans-national projects – between credibility and national preferences (2007): (WP5)
- Identification and prioritization of collaborative R&D (2007): (WP6)
- Prioritisation and co-ordination of collaborative R&D (2007): (WP6)
- CORE Organic Final report – evaluation of pilot call (2007): (WP7)

During the project period 8 newsletters were produced - in May 2005, February 2006, May 2006, July 2006, September 2006, December 2006, March 2007 and November 2007.

The project reports and newsletters can be downloaded from the library webpage of the project webpage <http://www.coreorganic.org/library/index.html>.

During the project period 3 workshops were held of which the first two were used for stakeholder consultation:

- a public workshop on how to increase transnational cooperation in Organic Food and Farming Research at the Joint European Organic Congress in Odense, Denmark in May 2006.
- an open workshop on the 3<sup>rd</sup> QLIF Congress in Hohenheim, Germany in March 2007, where the open access web-based archive, Organic Eprints, [www.orgprints.org](http://www.orgprints.org) was presented and discussed

The third workshop, the Kick-off meeting for the 8 transnationally funded CORE Organic pilot projects, which was held in Vienna, Austria in September 2007 was for an invited audience consisting of the CORE Organic pilot project coordinators, the Core Organic partners, invited staff from the Commission DG Research (Jean Francois Maljean and Wolf Wittke) and DG Agri, the Organic Unit (Maria Fladl) plus representatives from public funding bodies in Estonia, Latvia, Slovakia and Spain.

The project produced a CORE Organic Research Portal, <http://www.coreportal.org>, which informs about the situation of organic farming research (i.e. the history, organization, research programmes, financing, research facilities, initiation of research, selection and evaluation, utilization of

research and scientific education and research schools) in the European countries, which were involved in the CORE Organic project.

An open access web-based archive, Organic Eprints: [www.orgprints.org](http://www.orgprints.org) was also produced by the project. It contains more than 200 descriptions of research organisations, programmes and facilities, 500 descriptions of organic research projects and more than 10.000 organic research papers and it has 200.000 – 300.000 visits per month (September 2007).

The project was represented and had presentations at various Commission meetings and conferences:

- At an exhibition which took place in parallel with the 2<sup>nd</sup> “Communicating European Research” conference, arranged by DG Research in November, 2005 in Brussels, Belgium.
- At a workshop, “The life cycle of ERA-NET projects: from proposal submission to project-contract implementation” arranged by DG Research in May, 2006 in Brussels, Belgium
- At a SCAR committee workshop held by DG Agri in June, 2006 in Brussels, Belgium.
- At a workshop for ERA-Nets and Technology Platforms in the field of biotechnologies, agriculture, fisheries and food research arranged by DG Research in February 2007 in Brussels, Belgium.

Besides, the coordinator participated in meetings and questionnaire surveys arranged by DG Research on various ERA-net activities.

In the autumn of 2006 the project launched a call for transnationally funded CORE Organic projects. After an evaluation by independent expert peer review the following 8 three-year CORE Organic research pilot projects were initiated in July 2007:

**AGTEC-Org: Methods to improve quality in organic wheat**

**ANIPLAN: Planning for better animal health and welfare**

**COREPIG: A tool to prevent diseases and parasites in organic pig herds.**

**FCP: How to communicate ethical values.**

**iPOPY: Innovative public organic food procurement for youth.**

**PathORGANIC: Assessing and Reducing Risks of Pathogen Contamination in Organic Vegetables.**

**PHYTOMILK: What makes organic milk healthy?**

**QACCP: How to assure safety, health and sensory qualities of organic products.**

The projects were funded by all partners involved in the CORE Organic project by means of a virtual common pot approach. The CORE Organic project established web sites including intranet web pages for each of the 8 CORE Organic funded research projects:

<http://www.coreorganic.org/research/index.html#Anchor-AGTE-7594> and it drafted contracts concerning the transnational requirements of the CORE Organic pilot projects to be signed by all the project partners involved in the 8 projects.

The project also established a CORE Organic Funding Body Network in September 2007 and made a first draft for a cooperation agreement to secure the monitoring and evaluation of the 8 CORE Organic research pilot projects after the finalizing of the CORE Organic project, and to deepen and broaden the future collaboration of the CORE Organic funding body partners and other European funding bodies involved in funding of organic research.

The members of the project team produced in total 148 dissemination items in the form of reports, news letters, conference and poster presentations, brochures and press releases etc. in English and/or the national language of the partners.

## 1.5 Structure of this report

The remainder of this report (chapter 2 – 7) summarises the main findings of the project based on the above mentioned reports and following the structure of the different work packages.

In the final chapter 8 a short overall conclusion on the results of the ERA-net project, CORE Organic is presented.

## 2. MEDIATION AND COMMUNICATION (WP2)

The objective of WP2 was to provide overall information on European research in organic food and farming, and to provide platforms for communication between the involved partners

Therefore, to meet the objective of WP2 an internal and external website (section 2.1), electronic newsletters (section 2.2), an internet portal on organic research (section 2.3), workshops (section 2.4) and an open access archive for organic research publications were planned and implemented. This provided overall information on European research in organic food and farming and platforms for communication between the parties involved and interested stakeholders.

### 2.1 Project website: <http://www.coreorganic.org>

A website for external and internal communication was established and updated regularly during the duration of the project, in particular in relation to the pilot transnational call and subsequently to the 8 CORE Organic Pilot Projects selected under that call. At the end of the project detailed information on each of the CORE Pilot Projects was uploaded.

Figure 2: The Core Organic public webpage



For each pilot project, the website also links to the Contract Monitoring Site (CMS) system (<http://www.coreorganic.org/research/index.html>), which was established to allow the project coordinator and partners of each project to communicate internally via an intranet and externally with the public to present current information on their research activities and results. (An example can be seen in Figure 3).

For each CORE Pilot Project a leaflet was produced introducing the project. The leaflets can be seen on the webpage using the link mentioned above.

Figure 3: CORE Pilot project, Phytomilk webpage on <http://www.coreorganic.org/research/index.html>

**CORE Organic** PHYTOMILK

**PHYTOMILK**

Front page  
Pasture and silage  
Rumen fatty acid hydrogenation  
Effects of Se  
Effects of latitude  
Effects of storage time  
Bioactive components  
Participants  
Intranet

**Potential improvement of the salutary effect of organic dairy milk by forage species and by supplementaton (PhytoMilk)**



The main objective for the entire project is to optimise the production of organic milk with salutary effects due to an optimised choice of forage species.

The objective of the project is to:

- investigate how different forage species affect the fatty acid composition of organic dairy milk, and the milk content of bioactive components such as tocopherols, carotenoids, selenium (Se) and phytoestrogens
- investigate the biological activity of the collected dairy milk samples from the Nordic countries on normal and cancer cells

[Link to Danish television](#)

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Elisabet Nadeau, SLU, Sweden  
Erling Thuen, Norwegian University of Life Sciences (UMB), Norway  
Kjell Martinsson, SLU, Sweden

The website also contains an extensive library allowing the reader to access elements, such as: CORE publications; CORE Organic newsletter, CORE Organic Portal and Organic Eprints (see section 1.4). Besides, the CORE Organic webpage links to the CORE Organic Portal for European research in organic food and farming, <http://www.coreportal.org/>, where information on national research programmes, projects and facilities in the participating countries can be found. The CORE Organic public webpage has also been used to inform about European research projects in organic food and farming, European networks, seminars, workshops and press releases.

The intranet part of the CORE Organic webpage was used by the ERA-NET partners during the duration of the project to upload documents of interest from different work packages, for communication and project management and administration.

## 2.2 CORE Organic News: <http://www.coreorganic.org/library/news/index.html>

The objective of the newsletter was to inform main target groups about the outcome and activities of the project. Initially, the contents of the newsletter included articles on the project deliverables, including new publications, news on databases, mapping, workshops, conferences etc. Apart from the continuing overview of research in organic food and farming in the participating countries, a major topic was the announcement and promotion of the first pilot call for transnational research in organic food and farming. 8 newsletters were published during the duration of the projects. There were 1377 subscribers of this newsletter, of which most were researchers and advisors (respectively 40% and 8% of the total), but also farmers, suppliers, processors, administrators, students and journalists were among the subscribers.

A major effort was carried out in order to inform on the launch of the CORE Organic Pilot Call and to inform on the evaluation procedure and outcome of the pilot call. The page

<http://www.coreorganic.org/research/index.html>, where the 8 CORE Pilot Projects are presented, has a subscription box for subscription on an electronic newsletter informing on the activities and conclusions from the pilot projects, which are running almost 3 years after the CORE Organic project ended by the end of September 2007.

To get a better understanding of online communication of scientific knowledge and explore how the Internet can support transnational organic research networks a PhD project on on-line communication was initiated. A web survey was conducted among subscribers of the CORE Organic newsletter in order to get a better understanding of who the users are, in what way they are using online communication and what their needs and interests are in information on organic research. 514 web users participated. The survey was followed by in-depth interviews with a number of researchers and stakeholders in different countries in Europe (Denmark, UK, Germany and Italy).

The survey displayed that even though the Internet provides us with the technological potentials to communicate organic research to a lot of different users the communication is highly influenced by the user's social and professional networks, nationality and interests in the organic research. Consequently it is important to design the web communication with the relevant user groups in mind. For a number of user groups it is necessary to think of other ways to reach them than through the traditional channels. The PhD project provided information on four kinds of organic research users: "Experienced" organic researchers, "Newcomer" organic researchers, Advisers and NGOs. Based on the empirical findings a communication model will later be presented in the PhD thesis suggesting how to design science communication using the internet media."

### 2.3 Web portal on European research in organic food and farming:<http://www.coreportal.org>

Figure 4: CORE portal webpage

**CORE organic** Portal for European research in organic food and farming

[Austria](#)  
[Denmark](#)  
[Finland](#)  
[France](#)  
[Germany](#)  
[Italy](#)  
[Norway](#)  
[Sweden](#)  
[Switzerland](#)  
[The Netherlands](#)  
[United Kingdom](#)  
[Contact / Site info](#)

## CORE Organic Internet Portal

This internet portal for European research in organic farming is provided as part of the European ERA-Net project **CORE Organic**.

CORE Organic is an acronym for "Coordination of European Transnational Research in Organic Food and Farming". The project is part of the European Commission's ERA-NET Scheme, which intends to step up cooperation between national research activities. The project was commenced in October 2004, lasting for three years.

The CORE Organic Internet portal informs about the situation of organic farming research in those European countries, which are part of the CORE Organic project.

### Links

1. [Printed / PDF Version of the Country Reports on Research in 11 European Countries](#)
2. [Organic Eprints Archive](#)
3. [Addresses related to Organic Farming Research in Europe](#)
4. [Information on National Research Programmes Related to Agriculture](#)

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### 1 Printed / PDF Version of the Country Reports

The country reports at this portal are also available in printed form. The full PDF version is available at the Organic Eprints Archive including information on how to order the book.

- Lange, Stefan; Williges, Ute; Saxena, Shilpi und Willer, Helga, (Hrsg.) (2006) [Research in Organic Food and Farming. Reports on organisation and conduction of research programmes in 11 European countries](#). Bundesanstalt für Landwirtschaft

The CORE Organic Internet portal for European research in organic food and farming was established in order to provide an overview of the overall structure and content of research in the partner countries: Austria, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, the UK.

This included the following topics:

- History of organic farming
- Organisation of funding and research in organic food and farming including relevant stakeholders
- Mapping of research programmes, including distribution of research funding and implementation of research programmes.
- Financing of organic research
- Research facilities including research farms and on farm research.
- Initiation of research and stakeholder engagement.
- Research proposal selection criteria, evaluation procedures and progress monitoring.
- Utilisation of research.
- Scientific education and research schools.

The country reports provided information, which was later used in the other work packages in the CORE Organic project.

The PDF version of the country reports was later edited and published as a book:

*Lange, S., Williges, U., Saxena, S., and Willer, H. (2006): European Research in Organic Food and Farming. Reports on organization and conduction of research programmes in 11 European countries.* <http://orgprints.org/8798/1/lange-et-al-2006-coreorganic-reports.pdf> .

The book also includes a chapter on sharing and developing best practice for the evaluation of research in organic food and farming based on the questionnaire investigation carried out in WP5 (see section 5.1)

Besides the country reports, the Core Organic Internet Portal also includes links to the following information sources:

- The international open access archive for papers related to research in organic agriculture, Organic Eprints , in which the partners have added numerous relevant publications from their countries regarding research publications, projects, programmes, institutions and facilities.
- A database on addresses related to organic farming research in Europe, with possibilities to search by various categories (state research institutions, universities, major events etc.).
- Information on National Research Programmes related to agriculture, which is available at the SCAR net portal (the portal of the Standing Committee on Agricultural Research) [http://ec.europa.eu/research/agriculture/scar/index\\_en.cfm?p=1\\_xx](http://ec.europa.eu/research/agriculture/scar/index_en.cfm?p=1_xx)

## **2.4 Workshops/conferences**

### **Joint Organic Congress, Odense, Denmark, May 2006**

The Joint Organic congress, which was held in Odense, Denmark in May 2006 was conducted by 10 EU funded organic research projects with the objective to present the new research results and to put the research into a European development perspective. CORE Organic took a leading role in the planning of the congress. The congress also brought together organic producers, processors and policy makers. The congress had more than thousand visitors from app. 45 countries. During the congress, a workshop was held by WP3 of CORE Organic to bring together interested scientists and other experts and stakeholders to get their input on the following subjects of the CORE Organic ERA-net coordination project:

1. Identification of the most important research topics in different subject areas relevant for European joint transnational organic food and farming research.
2. Ways for collaboration and coordination of organic food and farming research in Europe in the future.
3. Ways for improved transnational use of research facilities for organic food and farming research.

Besides, DARCOF organized a theme on “Research in Sustainable Systems” at the Joint Organic Congress

**Kick-off meeting, Vienna, Austria, September 2007:** [www.coreorganic.org/research/kickoff.html](http://www.coreorganic.org/research/kickoff.html)

Just before CORE Organic was finalized in September 2007 a two-day kick-off meeting was held to launch the 8 transnational research projects selected for transnational funding by the CORE Organic partners. This meeting was attended by all the CORE Organic partners, all the CORE Pilot Project coordinators and some project partners, representatives from other European funding bodies (e.g from Spain, Estonia, Slovakia, Latvia, Poland), by other ERA-NETs (e.g. SNOWMAN, EUROTRANSBIO, BiodivERsA, ERASysBIO, ERA-ARD), DG Research (Jean-François Maljean and Wolfgang Wittke) and DG Agri (Maria Fladl).

During the meeting the eight new CORE Pilot Projects were presented and potential benefits and constraints of transnational research cooperation in organic food and farming within the framework of an ERANET were discussed. Furthermore, the outputs, findings and the "lessons learned" during the 3-year period of the ERA-NET project, CORE Organic were presented and discussed.

## 2.5 Organic Eprints: <http://www.orgprints.org>

Organic Eprints is an international open access archive for papers related to research in organic agriculture. The archive contains full-text papers, theses and reports in electronic form together with bibliographic information, abstracts and other metadata. The archive can be browsed by subject area as well as by country, organization and project, and there are also extensive search facilities (see figure 5). Everybody can register as users of the archive, which gives access to depositing of papers and subscription to e-mail alerts on new deposits within selected subject areas or countries etc.

The archive was established in 2002 as an online community service by DARCOF. Since 2003 it has been hosted by DARCOF in cooperation with FiBL (Switzerland) and BLE (Germany), which have the editorial responsibilities for the German language region and the German language version of Organic Eprints. Under the auspices of CORE Organic the archive has been extended to function as the organic research archive for all partner countries, and since 2003 it has functioned as the national archive for Denmark, Switzerland and Germany. The archive accepts and contains papers from researchers all over the world.

Figure 5: Organic Eprints web-page with browse and search functions.

The image shows the Organic Eprints website interface. At the top, the logo "Organic eprints" is displayed in green and red. Below the logo is a navigation bar with links: home, about, browse, search, latest, help. Underneath the navigation bar are links for "Login" and "Create Account". A welcome message reads "Welcome to Organic Eprints version 3". A descriptive paragraph states: "Organic Eprints is an international open access archive for papers related to research in organic agriculture. The archive contains full-text papers in electronic form together with bibliographic information, abstracts and other metadata. [More about the archive.](#)".

The main content area is divided into three sections:

- Browse:** "Browse all eprints in the archive by:" followed by a list: "- subject area", "- country, organization and project", "- other browse views". To the right is a link: "See the latest additions."
- Search:** A search form with three input fields: "Keyword(s)", "Name(s)", and "Date(s)". A "Search the archive" button is to the right. Below the form is a link: "More search options on the simple and advanced search pages."
- Register:** "As a registered user you can deposit your papers in the archive and subscribe to email alerts on new papers. [Go register.](#)"

At the bottom of the page, there are logos for "contact us supporters", "ICROFS", "FiBL", "BÖL Bundesprogramm Biologischer Landbau", and a link "auf deutsch".

The partners of CORE Organic decided to use the Organic Eprints for uploading of information on research projects, programmes and facilities for their countries (see section 2.3). Therefore, in September 2005 a two-day workshop was held at Research Centre Foulum, where 21 project participants from the 11 partner countries were educated in the use of the Organic Eprints archive. Besides, new and future publications to be entered into the archive were identified and means for securing that such publications were actually entered were discussed. At the meeting national editors for the partner countries were appointed to be responsible for the depositing of publications and information needed by the project as well as being the contact person that researchers and other users of the archive can contact for questions and comments in their country (see <http://orgprints.org/contact.html> ).

In June 2006 Organic Eprints was added to Scirus as one of 20 preferred web sources. Scirus is an Elsevier site recognized to be one of the most comprehensive science-specific search engines on the Internet. The search engine covers 250 million science-related web pages. The addition of Organic Eprints to Scirus list of preferred web sources means that Organic Eprints now range in the same category as the archives of NASA, arXiv.org e-Prints, BioMed Central, CogPrints and other leading scientific archives. More information can be found at <http://www.scirus.com/srsapp/aboutus/#orge>

In the autumn of 2007 Organic Eprints contained more than 200 descriptions of research organisations, programmes and facilities, 500 descriptions of research projects and more than 10.000 research papers, and it had 200.000 – 300.000 visits per month.

### **3. MAPPING OF RESEARCH AND FACILITIES ( WP3)**

The objective of WP3 was to establish a common European project database and to map existing research programmes, projects and facilities within organic farming in the participating countries.

The objective was met by establishing a common open source database (section 3.1), mapping and describing existing research programmes, projects and facilities (section 3.2) and by conducting a workshop, where results of the project were presented and discussed with relevant stakeholders (section 3.3).

#### **3.1 Database on research programmes, projects and facilities**

The structure of the database was discussed at a workshop in Frankfurt, Germany in March 2005 and national editors were educated in the use of the database at the workshop in Foulum, Denmark in September 2005. The database was based on the GNU Eprints open archive software as a part of the existing database, [www.orgeprints.org](http://www.orgeprints.org) and connected to the CORE Organic web portal for European research in organic food and farming, [www.coreportal.org](http://www.coreportal.org) (see also section 2.3). A detailed instruction manual on how to upload information, documents and links to the database was made. (see also section 2.5).

#### **3.2 Mapping and description of research programmes, projects and facilities**

After the database had been finalised and tested, the collecting and storing of relevant information was started on a European level. The basic idea behind the common database was that in the future the researchers will fill their project data into the database themselves. To reach a high relevance of the new database and to encourage the researchers to fill in their own data, the participating countries started with a centralised mapping of relevant information. The database was updated during the duration of the project.

As a starting point for a deeper analysis of gaps and overlaps of the current research activities in the partner countries a systematic collection and storage of information in the database on national research programmes, projects and facilities in organic farming was carried out. However, the programmes were often very different, which made it difficult to compare or utilize the information on a wider scale. Therefore, to give a comparable overview, all participating countries edited the collected information into "National country reports" of a common structure. The country reports followed a standardised structure starting with the history of organic farming research. Then the set up of the organisational structure of research was explained, followed by financial details about the different research programmes existing in the organic field. The country reports also gave an overview about existing national research facilities and described the national procedures for initiation of research and stakeholder engagement, selection criteria and evaluation procedures. The reports ended with the explanation of utilisation of research findings and national scientific education and research schools. The country reports were later published as a book (see section 2.3 and [http://www.coreorganic.org/library/pub/D3\\_2%20country%20reports%20web%20JULY2006.pdf](http://www.coreorganic.org/library/pub/D3_2%20country%20reports%20web%20JULY2006.pdf)).

Comparison of the financial details sorted according to subject categories of the Organic Eprints showed differences in the theme prioritisation between the partner countries and over the course of time. Summing up the information about funding given on programme level by the CORE partner countries a fairly detailed description could be given for the time period 2000 – 2004. Funding for research in Organic Food and Farming had been steadily increasing from approximately € 26 Million in the year 2000 up to more than € 50 Million Euro in 2003. Aggregation of the funding data from all partner countries on subject category level over a 4 year period showed high priority for projects relating to Crop Husbandry followed by Farming Systems and Animal Husbandry. On the European level comparatively less resources were spent on research in Values, Standards and Certification and on Soil Studies.

The programmes, project facilities and models for conducting organic farming research were analysed in more detail in other components of the project, especially WP4.

### 3.3 Workshop on results.

Instead of an 18 months workshop for presentation of the preliminary project results it was decided to make a workshop a day before the Organic Congress in Odense, Denmark, in May 2006 in collaboration with WP4. The workshop had the following 2 objectives:

1. To discuss with scientists and other stakeholders about future co-operation and better use of research facilities of Organic Food and Farming research.
2. To present the planned topics for the common CORE call and to discuss possible subtopics / most important research questions concerning the planned topics with scientists and other stakeholders (method: open space workshop with moderators and "silent writers")

More than 30 scientists and experts in various areas participated in the workshop. The results of the workshop as regards objective 1 were the following:

#### **Re. added value of cooperation**

Cooperation can give added value to research activities in the following ways:

- Common use of research facilities - good for more and new collaboration
- Better understanding of results of different research groups and better understanding of differences in results
- Less fragmented results and better comparability
- Better cooperation on methods – learning from each other
- Avoid doing the same, repeating the same experiments

#### **Re. Organic Eprints:**

- The open access web-based archive is a good tool because it gives very fast availability of knowledge everywhere, and it has high validity (country editors check the information for quality in a buffer zone before passing it on to the public server).
- Conferences are not accessible to all while e-prints are.
- Researchers should make a review of the Organic Eprints before starting a new project (easy to search information on a specific topic) and look for research facilities to get new ideas when planning new projects.

#### **Needs expressed:**

- There should be fewer steps to print papers, and it should be easier to use.
- New partners are needed – the users are mostly the key-players at the moment.
- The archive should be updated frequently – also on facilities – the data should be actual.
- Enlargement of the concept of research facilities – devices/situations where processes can be studied and researchers can meet and act.
- Forum for discussions should be included, e.g. by implementation of a chat box e.g. on additional value of organic food (or several chat boxes for different topics?)
- Feed back to Organic Eprints is missing
- "Non success" stories should also be available in organic E-prints, e.g. projects not funded and papers not accepted.
- National funding data should be secured, so they are available also after CORE Organic.
- Organic Eprints should be promoted more – e.g. by the use of linking from relevant web-pages.
- Problem that other databases still have to be consulted – problem of copyrights? It could be solved by requiring that nationally funded research results should be published in the Organic Eprints in the future.
- Language problems: Some, for example Finland makes translations into English. Some simplification for advisors and farmers is also recommended.

### **Re. CORE Organic's and ERA NETs role in cooperation**

The following comments and recommendations were made concerning a Common CORE Organic call:

- The call should not just be a sort of FP6 or FP7 call, it should be more flexible.
- How can ministries have inputs to the programmes?
- Stakeholders should be heard as regards the prioritising of topics.
- It should be possible also to make regional calls.
- Focus should also be on dissemination to the end users in the various countries. Quite often a problem is that research proposals are mainly evaluated according to international scientific quality but not so much as regards the dissemination to the end-users.
- CORE should give more research activities for the invested money - and not more administration.
- A common call reduces the risk of parallel research in different countries giving results, which cannot be compared - hopefully that will lead to a common research strategy.
- The language is a big problem in transnational research – some money should be used for translation /correcting into proper English.

### **Re. Workshops, seminars, networks, exchange of experts**

- CORE Organic should promote meeting of people in person to plan projects – important for the quality and success of projects that people can cooperate.
- Use Core Organic for networking to make good teams, for new research ideas, new research methods and for transnational use of research facilities.
- Informal workshops are a possibility for people to get to know new persons and for example visit the local research facilities.
- Dissemination of results via Organic Eprints is good, but contact in person is even better.
- ERA nets should also focus on exchange of researchers.
- Big European projects are difficult to manage, while smaller groups are more efficient. Therefore organising exchange of expertise of different countries – e.g. short visits of researchers is recommended.
- Courses for methodology questions/formation could be supported by CORE organic.
- Collaboration should be a bottom up process, which CORE Organic should facilitate. It should not be managed too tightly.
- Structures to facilitate the knowledge of available experts are needed.

### **Re. How do we secure continuation after the end of projects?**

- COST actions sometimes are continued after the end of the project.
- Personal dedication.
- There is a need for some money to generate other sources of money for building on the results of a project.
- Important with new facilities and good with visits of each other.
- Some funding for international collaboration formation is available, e.g. Marie Curie.

The results of the workshop discussion concerning objective 2 formed the basis for the subtopics in the common CORE Organic pilot call, which got the following 3 topics and subtopics:

### ***Animal disease and parasite management, mainly focusing on preventive health and improving therapies to reduce reliance on antibiotics***

- Set-up of long-term strategic research agendas. Screening of future research needs in disease and parasite prevention/management based on evaluations of the state of present knowledge.
- Management and prevention of diseases and parasites.
- Interaction between animal welfare, disease and parasite management.

***Quality of organic food – health and safety***

- Organic quality – identification and definition of critical and essential parameters useful to optimise material and immaterial organic food quality. Methodological issues.
- Nutritional benefits and safety of organic food. Relation between healthy and ecologically sustainable diets.
- Impact of the food chain on product quality, risks and consumption. Interaction between organic standards and food safety, i.e. Salmonella, Campylobacter.
- Organic farming practices and their impacts on food quality, health and safety.

***Innovative marketing strategies – identification of successful marketing methods, local markets***

- Impact of large-scale conversion to organic production – consequences for market strategies (small/large scale, local/organic, price/quality), and the supply chain.
- Public procurement of food. Provision of organic food to public institutions – best practices and constraints.
- Reconnecting consumers and farmers – innovative practices.
- Marketing and consumer behaviour – benefits in terms of environment and health, knowledge based consumer choices and branding strategies.

## 4. COORDINATION AND INTEGRATION OF KNOWLEDGE (WP4)

The objectives of WP4 were to ensure that all well-known research areas of organic food and farming are coordinated, so there is maximum exchange of research results and sharing of research facilities, including exchange of experts, and to identify research areas where an increased cooperation between national or regional programmes could bring major synergies and progress.

These objectives were met by contributing and analysing all information needed for coordination of research, e.g. studied parameters, statistical design and information for modelling into the open source database of WP3 (Section 4.1). Further, an analysis of the use of research facilities was made (Section 4.2) as well as an analysis of topics relevant for joint research projects (Section 4.3). Finally possibilities for improved use of research facilities and topics relevant for integration and training schemes were analysed (Section 4.4).

### 4.1 Contribution to database and analysis of information.

An analysis of research facilities was carried out based on information collected in the CORE Organic Web Portal for European research in organic food and farming with the aim of ensuring that all well-known research areas of organic food and farming were coordinated, so there will be maximum exchange of research results and sharing of research facilities, including exchange of experts. The analysis also identified research areas where an increased cooperation between national or regional programmes could bring major synergies and progress. The project analysed gaps and overlaps in research topics, produced reports on improved use of research facilities and on topics relevant for integration, and training schemes, and organized a workshop together with WP3 just before the Joint Organic Congress in Odense in May, 2006 presenting the results of coordination of research areas and the suggestions for improved use of research facilities, and a scheme for training of research personnel and exchange of experts.(see also section 3.3).

### 4.2 Improved use of research facilities

[http://www.coreorganic.org/library/pub/Analyses\\_of\\_research\\_facilities\\_final3.pdf](http://www.coreorganic.org/library/pub/Analyses_of_research_facilities_final3.pdf)

A report (D 4.1a) by Arja Nykänen and Stefano Canali (2006): Analysis of facilities in Organic Food and Farming research in participating countries of CORE Organic was produced in 2005-2006 covering the following research facilities in the partner countries: research farms, experimental fields, on-farm studies, networks, animal research facilities, leaching fields and long-term experiments. Other facilities like laboratories for chemical and microbial analyses, food processing, greenhouses, climate chambers and growth cabinets were left out from the analysis, because they are seldom exclusively used for organic food and farming research, and because their use does not require particular characteristics. If required, these facilities can easily be converted to organic food and farming research. All the facilities were further classified under research subject areas according to the research area in which they were used, but many facilities fell within several subject areas. For each research facility type a list of facilities was established, and the overall picture for all countries was analysed.

The analysis revealed the following results:

**Research farms** (76 identified in total) could be found in almost all countries except for Italy and Norway, where a lot of research was done on experimental fields and as on-farm research. Most of the farms were used for research in animal husbandry and crop production as well as for research in organic farming systems. The results obtained in the analysis might suggest, that research farms preferably were utilised to improve and modify production systems at the production system level, both in animal husbandry and crop production. The research farms had probably been identified as a valuable tool to study the improvement of breeding and cultivation techniques. On the other hand, it seemed that this type of research facility had not been considered a powerful tool to evaluate environmental, social and economic aspects of organic farming. In some countries social and economic aspects were studied within farm networks. Environmental aspects were more commonly studied in experimental fields. Very likely the existence or absence of research farms was

due to political or structural reasons. Where such farms exist, they have to be filled with activities – and crop production and animal husbandry have seemed to be logical choices. The persons, who manage such farms, will probably not be representative for commercial farmers in studies on social or economic aspects.

A big number of **experimental fields** were listed for Sweden, Norway, Italy, Switzerland and Denmark, i.e. countries where there were no or only few organic research farms available. All experiments carried out in experimental fields had focused on crop production research. In a few cases experimental fields had been dedicated to research on compost and manuring, weed management, breeding and genetics, crop health and crop protection. More research could be done on soil tillage, weed management and crop health, as well as nutrient management - especially in stockless farming.

With the exception of animal husbandry, it seems that **research farms** and **experimental fields** were used for research within the same topics, but some countries preferred to have research farms while others preferred experimental fields. This difference could be explained by taking into account that experimental fields are valuable tools, where crop production research takes place in stockless farming systems (or low stocking rate farming systems). On the other hand, when crop production and animal husbandry are both present and linked to each other, research farms are better tools than experimental fields, as they allow research in integrated activities and the study of interactions and synergies at the farm level.

In almost all countries researchers and research bodies had contracts with farmers to carry out **on-farm research** and experiments on their farms. On-farm research was done in all countries except Germany and Italy. In most countries, the on-farm research contracts with the farmers were not on a permanent basis. The number and type of farms depends on the actual projects. Most of the on-farm research was committed to animal husbandry and crop production, but in some cases, economical aspects as well as farm nutrient management and soil quality were also studied. Research carried out by means of on-farm facilities covered a wide range of sub-subject areas of plant production and animal husbandry. On-farm research can be used as a tool for short or long-term monitoring activities. Although this kind of research requires much work, it gives wide and 'true' on-the-spot data from farming practises. This kind of research facility can give data for comparisons between different countries in transnational research projects. A wider range of research subject areas could be covered by means of on-farm studies.

More or less permanent **networks** of farms (researchers and advisors could also join) had been established in 6 countries: Sweden, UK, Netherlands, France, Switzerland and Germany. In addition to data collection, these networks were used as a tool for dissemination of research results and communication. In some countries participatory research was used as an important tool to formulate problems, carry out experiments and evaluate the results. Transnational research could be done based on the collected data. More subject areas (e.g. food processing, marketing, consumer issues and environmental aspects) could be covered by the use of networks.

**Animal research facilities** were situated in 8 countries (Austria, Denmark, Finland, Germany, Norway, Sweden, Switzerland and the UK). Of the animal research facilities 14 were for research in dairy cattle, 3 for beef cattle, 7 for pigs, 7 for poultry and 5 for sheep. These facilities could be used internationally, because animal production research, especially animal feeding and breeding studies, are quite expensive. Animal behaviour and health research as well as simple feeding experiments could also partly be carried out on the animal research farms.

**Leaching fields** for nutrient leaching research were established only in the Nordic countries (Denmark, Finland, Norway and Sweden). All experiments concentrated on different crop rotations and production systems as well as different management techniques and fertilization. Comparison of different manures and crop rotations had been the main focus. The treatments in these experiments could be harmonised to get a wider use of the results. However, the difference in the set-up and/or the experimental design of these facilities aiming at finding answers to new research questions should be taken into account, when thinking of harmonisation of such experiments.

The European Commission and the public authorities in many of the participating countries consider the environmental impact of organic food and farming as one of the most important questions, and almost all countries are at present carrying out research projects within this topic (see Research topic analysis in Section 4.3). Evaluation of the risks of nutrient losses from agricultural systems is one important aspect of the problem. It is likely that, according to the various soil properties and climate characteristics, the facilities and methodologies used may vary greatly between countries, which means that other methods than leaching fields may also have been utilised in environmental studies. Leaching studies may have been carried out in not fully dedicated facilities like experimental fields, research farms and – not the least, long term experiments or by other methods like soil samples, suction cups and nutrient balance calculations.

**Long-term experiments (LTE)** have been established in all countries, except for the Netherlands, where research projects some years ago were organised in three or four year programmes. LTEs are widely used in almost all farming systems (animal dominated, low stocking rate or stockless systems) and they are suited for carrying out research in a wide range of topics (i.e. improvement of production systems, nutrient management, plant protection, soil and yield quality, environmental impacts etc.) – (see Table 1). Most common topics in these trials were: farm nutrient management, crop combinations and interactions and soil quality. Nutrient leaching, composting and manuring as well as food quality were studied, too. In some cases, data for economic analysis were collected or calculated as well.

**Table 1:** Long term experiments in the participating countries according to research subject areas. The same experiment can be placed under several subject areas.

Subject area	Number of experiments	Countries
Farm nutrient management	23	AT, CH, DK, FI, GE, IT, NO, SE, UK
Crop combinations and interactions	20	DK, FI, FR, IT, SE, UK
Soil quality	13	AT, CH, FI, IT, UK, SE
Nutrient leaching	9	AT, CH, DK, FI, NO, SE
Composting and manuring	9	CH, DK, FI, GE, NO, IT, SE
Food / crop quality	9	CH, FR, IT, NO, SE
Nutrient turnover	6	CH, FR, IT, NO, SE
Breeding (Variety trials)	6	FR, IT, SE, UK
Weed management	6	DK, IT, SE
Crop health	3	FR, IT, SE
Cereals, pulses and oilseeds	26	CH, DK, FI, FR, IT, NO, SE, UK
Forage and pasture crops	17	CH, DK, FI, NO, SE, UK
Vegetables	11	GE, IT, NO, SE, UK
Fruit and berries	2	IT, FR

Long-term experiments are generally expensive and work consuming, for which reason they should only be established if research results and conclusions cannot be achieved by using other cheaper types of research facilities. On the other hand, where LTEs exist, they provide very valuable research results that may be utilised better by merging data from various experiments. It should also be considered whether some changes in the experimental design could be carried out to facilitate the merging of results. At the moment there is probably a strong need to start a discussion on the results achieved up to now in the different European LTEs and which roles LTEs should play in the future. An LTE-group of ISOFAR (International Society of Organic Agriculture Research) has been formed to carry out this task and future collaboration between the ISOFAR LTE Group and CORE Organic is recommended. All LTE experiments were more or less field experiments, where data were collected from soil, water and plants. Perhaps LTEs could also be done within animal research, e.g. on animal health. Social aspects as well as economic monitoring could be the focus of LTEs for example via farm networks, if they fulfil the criteria of LTEs. In crop

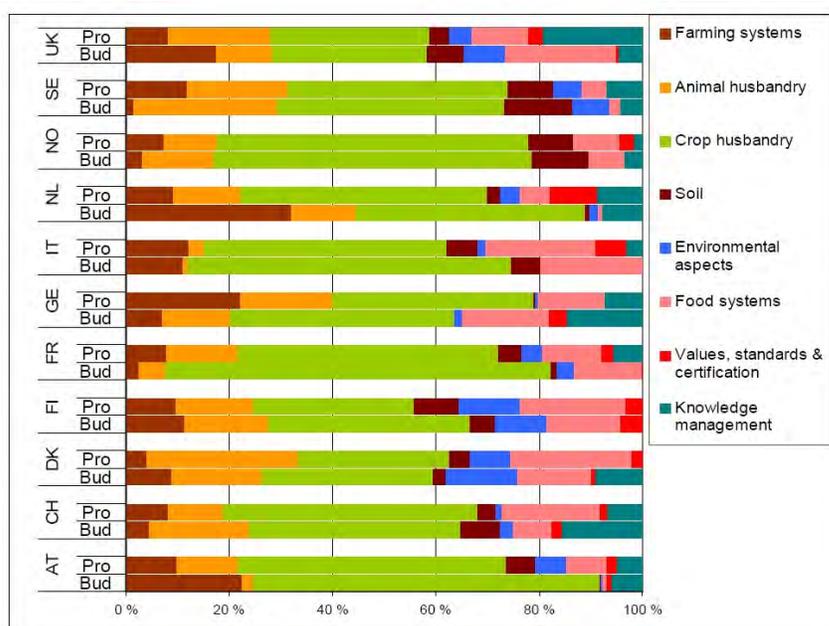
production, only little research has been done on LTEs with berries and viticulture and no LTE research has been carried out with olives, ornamentals and bulbs. Soil tillage research as well as environmental aspects other than nutrient leaching could be strengthened by means of LTE research.

### 4.3 Analysis of organic food and farming topics in CORE Organic partner countries.

[http://www.coreorganic.org/library/pub/Analyses\\_of\\_research\\_topics\\_final2.pdf](http://www.coreorganic.org/library/pub/Analyses_of_research_topics_final2.pdf)

A report (D 4.1b) by Arja Nykänen and Stefano Canali (2006): Analysis of Organic Food and Farming research topics in CORE Organic participating countries was made, based on an analysis of the titles of 1282 research projects running for a time period of 2 – 6 years (depending on the country) in the period 2000-2007. The number of projects varied a lot, from 20 in Italy to 360 in Germany. In Figure 6 the share of projects and relative share of the total budget spent on different subject areas is shown.

Figure 6: Relative share (%) of research projects (Pro) and relative share of the total budget (Bud) of Organic Food and Farming research in participating countries according to subject areas as mean values of named years.



This figure shows which subject areas, that have been studied in few projects only (soil, environmental aspects, values and knowledge management) and therefore gives an indication of possible gaps in organic food and farming research.

An in-depth analysis (based on table 2 below) was used to classify the research topics in the participating countries according to the intensity with which they had been studied during the period within the following categories:

#### **Research areas which were widely studied in all countries (possible overlaps?)**

Almost all countries gave a high priority to research in animal production systems, crop production systems, crop health, quality and protection.

#### **Research areas which were studied little in most of the countries (possible cooperation?)**

Almost all countries had carried out at least a small number of projects on buildings and machinery, farm economics, social aspects, farm nutrient management, beef, dairy, pig, poultry, sheep and goat production, animal feeding and growth, animal health and welfare, cereals and oilseed production, forage and pasture production, vegetable production, fruits, berries and viticulture production, crop breeding, genetics and propagation, composting and manure, weed management,

soil quality, nutrient turnover, air and water emissions, biodiversity and ecosystem services, food security, food quality and human health, markets and trade, consumer issues and education, extension and communication.

Table 2: Share of projects (%) out of the total number of projects in each of the 11 CORE Organic countries

	AT	CH	DK	FI	FR	GE	IT	NL	NO	SE	UK	Total
<b>Farming systems</b>	9.8	8.2	4.0	9.7	7.8	22.1	9.1	9.2	7.4	11.8	9.2	11.1
Buildings and machinery		1.0		4.3	0.8	0.6		1.9		1.0	0.5	1.0
Farm economics	4.9	3.6	2.0	4.3	1.6	17.7	6.1	2.4	1.6	1.5	3.3	6.2
Social aspects	1.0	0.5				1.2	1.5	1.4		1.5	1.1	1.0
Farm nutrient management	3.9	3.1	2.0	1.1	8.4	2.7	4.5	3.4	6.9	7.8	3.3	3.9
<b>Animal husbandry</b>												
Production systems	3.9	5.1	19.6	7.5	9.3	4.4	3.0	7.2	7.4	9.3	19.1	7.0
Beef	1.0	2.1	3.9	2.2	2.3	0.6			1.5	1.0	3.3	1.3
Dairy		2.6	5.9	3.2	2.3	1.2	1.5	1.0	4.4	2.9	4.4	2.2
Pigs	2.0		7.8	1.1		1.2		4.8		2.9	0.5	1.8
Poultry	1.0		2.0	1.1	3.1	0.3		0.5		2.5	2.7	1.0
Sheep and goats		0.5			1.6	0.6	1.5	1.0	1.5		1.1	0.6
Aquaculture						0.6						0.1
Breeding and genetics		0.5						0.5		1.6	1.1	0.4
Feeding and growth	2.9		2.0	4.3	2.3	7.1		2.9		3.9	0.5	3.0
Health and welfare	4.9	5.1	7.8	3.2	2.3	6.6		2.4	2.9	4.9	6.0	4.5
<b>Crop husbandry</b>												
Production systems	21.5	11.2	11.2	18.3	26.4	5.3	19.7	1.1	30.9	15.2	15.0	14.1
Cereals and oilseed	9.8	0.5	5.9	2.2	6.2	0.9	3.0	0.6	8.8	3.4	2.7	2.5
Forage and pasture		2.1		4.3	1.6	1.8	1.5	0.5	7.4	6.4	1.1	2.3
Root crops		0.5					1.5	1.4		1.0		0.4
Vegetables	3.9	1.5	3.9	6.5	4.7	0.6	4.5	1.4	6.9	2.9	6.6	3.3
Fruits and berries, viticulture	5.9	9.2	2.0	5.4	1.8	1.8	9.1	4.3	8.8	1.5	1.1	4.7
Ornamentals and nurseries	2.0	1.0			1.6	0.3		3.9				1.0
Crop combinations and interactions	4.9		2.0		7.0				2.9	3.4	1.6	1.3
Breeding, genetics and propagation	4.9	6.2	5.9	3.2	1.6		4.5	5.3	5.9	3.4	3.8	6.2
Composting and manure	3.9	1.0		2.2		0.6	4.5	2.4		1.6	1.1	1.5
Greenhouses and coverings		0.5		1.1	0.8		3.0	1.4	1.5			0.6
Irrigation and drainage												
Soil tillage	1.0	1.5			2.3	0.3				0.5	0.5	0.6
Weed management	4.9	3.1	3.9	2.2	0.8	1.2		1.9	4.4	5.9	4.4	2.9
Crop health, quality and protection	9.8	10.0	5.9	4.3	10.1	20.6	15.2	1.1	14.2	10.1	7.7	15.8
Post harvest management and techniques	1.0				0.8							0.1
<b>Soil</b>												
Soil quality	2.9	2.1	2.0	3.2	3.1	0.3	3.0	1.4	4.4	3.4	2.7	2.2
Nutrient turnover	2.9	1.5	2.0	5.4	1.6		3.0	1.0	4.4	5.4	1.1	2.0
<b>Environmental aspects</b>												
Air and water emissions	2.9	0.5	3.9	7.5	2.3		1.5	1.9		2.5	1.1	1.7
Biodiversity and ecosystem services	2.0	0.5	3.9	4.3	1.6	0.8		0.5		2.9	2.2	1.5
Landscape and recreation	1.0							1.4			1.1	0.4
<b>Food systems</b>												
Community development	2.0		3.9	1.1		1.1				1.0	0.5	2.7
Food security, food quality and human health	3.9	9.7	7.8	7.5	6.2		15.2	3.4	2.9	2.9	3.3	4.7
Markets and trade	2.0	1.5	5.9	1.1	2.3		3.0		4.4	1.0	4.4	1.4
Policy environments and social economy	2.1	2.0	2.2				1.5					0.5
Processing, packaging and transportation	3.6	2.0	3.2	1.6	2.9							1.3
Produce chain management	1.0		2.2	1.6		1.5	2.4					1.6
Recycling, balancing and resource management	1.0	2.0	3.2					1.5				0.5
<b>Values, standards and certification</b>												
Regulation	1.0	1.0			0.8		1.5	1.9			1.6	0.7
Consumer issues		0.5	2.0	3.2	1.6		3.0	0.5	1.5			0.5
Quality and evaluation of inputs	1.0						1.5	8.8	1.5			1.1
Technology assessment											1.1	0.1
<b>Knowledge management</b>												
Education, extension and communication	4.9	5.8			5.4	7.1	1.5	6.3	1.5	2.9	15.4	6.0
Research methodology and philosophy		1.0					1.5	2.4		3.9	3.8	1.5

**Research areas which were studied in some leading countries (possible cooperation?)**

Some leading countries could be found in farm economics (Germany), fruit, berries and viticulture (France), breeding, genetics and propagation of plants (Germany), community development (Germany) and food security, food quality and human health (Italy).

**Research areas which were studied in few or hardly any country (possible gaps?)**

Only some countries had done research on crop combinations and interactions, greenhouses and coverings, soil tillage, community development, policy environments and social economy, processing, packaging and transportation, produce chain management, regulation and research methodology and philosophy.

Almost none of the countries had done research on aquaculture production, animal breeding and genetics, root crops production, ornamentals and nurseries, irrigation and drainage, post harvest management and techniques, landscape and recreation and technology assessment. It should be discussed whether these subject areas are less important, whether there is relevant research done in conventional farming, or whether more research within organic food and farming is needed on these topics.

The study also highlighted subject areas where strong expertise can be found as opposed to “a little research was done in almost all countries”. These research areas were: Animal feeding and growth (Germany), Plant breeding, genetics and propagation (Germany), food security, food quality and human health (Italy) and education, extension and communication (UK).

#### **4.4 Improved use of research facilities and topics relevant for integration, and training schemes.** [http://www.coreorganic.org/library/pub/D4\\_2a\\_final\\_3OCT2007.pdf](http://www.coreorganic.org/library/pub/D4_2a_final_3OCT2007.pdf)

A report (D 4.2a) by Arja Nykänen (2007): Report on improved use of research facilities and topics relevant for integration, and training schemes was made to describe the possibilities of different research facilities to fulfil the research needs established by the participating countries of the CORE Organic project. The report was based on the information given in the report “Analysis of facilities in organic food and farming research in participating countries of CORE Organic” (see section 4.2), the WP6 reports, “Identification and prioritisation of collaborative R&D” and “Prioritisation and co-ordination of collaborative R&D” (see chapter 6).

The most important research topics among the partners were within the categories, environmental aspects, animal husbandry, and values, standards and certification. Environmental aspects and soil can be studied in long-term experiments, including leaching fields, and animal husbandry research can be carried out as on-farm research or in animal research facilities, which are not available in all participating countries and thus the coordination of their use was seen as very important. A good number of research needs, which were common for several partners are found in the subject areas of farming systems as well as food systems (food security, food quality and human health, markets and trade, policy environments and social economy, produce chain management, recycling, balancing and resource management). The facilities listed in the report have not made a significant contribution to these topics, except as regards primary production in the context of food chain research as a whole. Research farms and experimental fields, on-farm research and permanent networks can be used in primary production research in the context of the study of the food chain as a whole.

The objective of the report was to present a proposal concerning more effective and improved use of research facilities, and topics relevant for integration in joint research projects. As concerns an improved and more effective use of the research facilities the national funding bodies do not have any power to decide on which facilities should be used for what, because the facilities are owned by universities, research centres, farmers organisations etc. Research facilities are needed should a research need arise, which can be fulfilled through the characteristics of a specific research facility. In the meantime the facilities have to be maintained, which is very expensive. This is why facilities are at the moment being shut down in many countries. Therefore, more effective transnational use of the facilities could be an answer to these problems. It is suggested that the facility owners and researchers should be invited to discuss which facilities are the most important to maintain for transnational research projects. This will require money for travelling, for which reason such a meeting or workshop should be a topic of a joint action in a future coordination project.

The other objective was to create a scheme for training of research personnel and exchange of experts to promote the exchange of experiences on how to conduct research by means of a systems and systemic approach. This was partly done by collecting information on the education in organic food and farming at the university level in the participating countries. This information was forwarded to two ongoing EU projects which deal with education in organic food and farming, A Multilingual Federation of Learning Repositories with Quality Content for the Awareness and Education of European Youth about Organic Agriculture and Agorecology (Organic Edunet : [http://www.organic-edunet.eu/organic/index.html?dbX\\_sid=7f98f26cb05c8f2c317eeee90abf9f20](http://www.organic-edunet.eu/organic/index.html?dbX_sid=7f98f26cb05c8f2c317eeee90abf9f20) ) and European Network of Organic Agriculture Students (ENOAS: <http://www.enoas.org/> ) . It was suggested that a training scheme should be a topic (or part of a topic) of a joint action in a future coordination project on organic food and farming, or It could perhaps be possible to include this kind of scheme in the Marie Curie actions under FP7. As it is assumed that in the future more research will be carried out as on-farm research and in networks instead of in “traditional” field experiments, a research methodology is needed for teaching of the researchers as well as the research personnel. A common methodology for long-term experiment research is also needed.

## 5. Sharing and developing best practice for evaluating organic research (WP5)

The objective of WP5 was to identify common evaluation criteria at project level as well as programme level to ensure high quality research in organic farming.

The objective was met by mapping of existing evaluation criteria and procedures for construction and implementation of research programmes, and by developing best practice for evaluation of research in organic food and farming (Section 5.1). Further, evaluation criteria and procedures to provide model Terms of Reference (TOR) for the scientific evaluation of the CORE Organic pilot project proposals were analysed (Section 5.2) and a searchable database with contact details of 372 excellent experts in various fields for peer reviewing, evaluation and training was created (Section 5.3).

Although the criteria for scientific excellence are the same for organic research activities as for other research activities, some additional requirements have to be met: Whereas most of the agricultural research projects are disciplinary and programmes are designed in a multidisciplinary way, organic farming research requires a consistent interdisciplinary understanding of methods and results. In addition, the organic farming and food system makes a strong claim to consider social and ethical impacts of farming and how research interferes, a claim often difficult for funding agencies and researchers to cope with. Therefore, funding agencies and programme managers have a strong interest in a joint development of best practice for evaluation and quality assurance in this relatively new research area.

### 5.1 Mapping evaluation criteria and developing best practice for evaluation of research in organic food and farming (WP5).

A questionnaire addressing the organisation of organic food and farming research in the partner countries was sent out to all partners in order to evaluate and improve priority setting, procurement/funding and evaluation of organic farming research. The questionnaire consisted of eight sections. The first part concerned the organisation of organic farming research emphasizing on the question, whether an organic research programme existed or whether organic farming research was integrated in a more general scheme. The second part looked at the organisation of organic programmes and the priority setting process. The third part contained detailed questions dedicated to the different steps of open calls. The fourth part dealt with reporting and monitoring of the projects and programmes, and in the fifth part, the focus was on how the ex-post evaluation was organised. Part six concerned the different dissemination activities, and part seven focused on proposals and how the procedures could be optimized in the different countries. Part eight contained specific questions on how the eleven countries dealt with interdisciplinarity, grass root research, and scientifically controversial methods.

The results of the questionnaire investigation was published as D5.1: Alföldi, T., Niggli, U. and Sylvander, B. (2006): Sharing and developing best practice for the evaluation of research in organic food and farming. [http://www.coreorganic.org/library/pub/wp5\\_report.pdf](http://www.coreorganic.org/library/pub/wp5_report.pdf) . This report has also been published as chapter 12 in the book on the country reports (see section 2.3)

The main conclusions of the analysis were the following:

The 11 partner countries organises the funding in different ways. Some countries mainly fund organic research through universities or public/private research centres (CH, DE and FR), while others fund organic research through general research funding schemes or specific organic funding schemes. Four countries (Austria, Switzerland, Finland and Norway) had their organic farming research integrated in a general scheme and had no **specific organic programme**. Specific calls were issued just occasionally. Another important difference between the countries was the **frequency of the calls**. Five partners did not issue calls regularly (Switzerland, Germany, Italy, the Netherlands and the UK), while the Nordic countries and France did. However, the frequency varied between once every four - five years (Denmark) up to four times a year (Norway).

The description of the **priority setting process** and of the actors involved was very similar in the participating countries. However, there might be a difference in the level of formality. Some countries described the process as rather informal, others used a more formal approach (two-step consultation).

At the first sight, there seemed to be no big difference on how the countries handled the **organization of open calls**. With some exceptions, most countries knew the possibility to submit a pre-proposal and the evaluation process also included a panel discussion. However, there was an important difference as concerns the duration of the evaluation, which lasted between 3 and 40 weeks. This indicates that there may be more differences in the organisation of the open calls, than it appeared from the survey. It also showed that research in organic food and farming currently is becoming a field where the rules are close to the general ones. This contributes to legitimate the research in organic food and farming.

The most frequently named **evaluation criterium** was “scientific excellence”. Furthermore specific competence of the applicants as well as relevance and innovation for organic farming were important criteria for the ex-ante evaluation. None of the partners used specific criteria for organic farming or suggested criteria that could be used. Also, nobody expressed the need to enlarge the set of criteria to specifically suit the evaluation of organic farming projects.

The countries dealt differently with anonymity and payment of the **evaluators**. Potential conflicts were avoided in different manners, ranging from open discussion to the exclusion of experts. Matching funding of research projects was requested by some partners and was regarded by most partners as positive.

The requirements of **reporting and monitoring** were similar in all countries.

The **ex-post evaluation** followed basically the same criteria as the ex-ante evaluation.

**Dissemination activities** were part of the contract in nearly all countries. Publishing in Organic Eprints was compulsory for some countries, whereas others left it to their researchers to choose adequate dissemination tools. The findings on dissemination are summarized in table 3 below.

Table 3: Questions on dissemination

Question	AT 	CH 	DE 	DK 	FI 	FR 	IT 	NL 	NO 	SE 	UK 
Are dissemination activities part of contract?	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes
Dissemination activities required for the project?	FR APJ	Ind3)	Int 1), 2)	Int 1)	Ind3)	-	Ind3)	Ind3)	Ind3)	Int4)	Ind3)
Tools for dissemination?	SJ APJ PM Int	Int APJ TL WS FD Conf	Int NL PJ NW Conf FD	Int NL PJ NW Conf FD	SJ APJ WS Conf CD SG	Int WS APJ NW	WS APJ SJ Conf	SJ APJ WS Conf	Int SJ APJ PM WS Conf Pat	Int	Int FR WS Conf SP APJ TL SG PM

Abbreviations: **FR**: Final report; **SJ**: Scientific journal; **APJ**: Agricultural professional journal; **PM**: Public media; **Int**: Internet, mainly [www.orgprints.org](http://www.orgprints.org); **NL**: Newsletter; **TL**: Technical leaflets; **FD**: Field demonstration; **WS**: Workshop; **NW**: Networks; **Conf**: Conferences; **CD**: CD-ROM programmes; **SG**: Steering group as a multiplier; **PM**: Public media (including newspapers, radio, TV for consumer related topics); **Pat**: Patents

1) All results need to be published on [www.orgprints.org](http://www.orgprints.org)

2) Journalistic expertise for further publication is offered by the ministry

3) Individual: Each contractor has to choose the suited communication tool to deliver the results to research users

4) Centre for sustainable agriculture (CUL) is responsible for communication with research users.

Participants made only few suggestions on how to **improve the procedure**: simplification of the work to minimise administration load and to have more external experts involved in the evaluation were the most important proposals. Developing specific criteria for the evaluation process was not mentioned. UK suggested a strengthening of the internal expertise of the programme owner, i.e. to develop an internal intelligent customer function.

The opinion on whether and how to **stimulate interdisciplinarity** was controversial. Some participants saw all agricultural research as multidisciplinary, whereas others stimulated it through methodological debates and encouraged the inclusion of social scientists. None of the countries used explicit criteria, which makes grass-root research and scientifically controversial methods eligible. However, nearly all said that such research might be accepted if methodologically sound.

## 5.2 Analysis of the evaluation criteria and procedures to provide model Terms of Reference (TOR) for the scientific evaluation of CORE Organic pilot project proposals.

[http://www.coreorganic.org/library/pub/D5\\_2\\_Final\\_5OCT2007.pdf](http://www.coreorganic.org/library/pub/D5_2_Final_5OCT2007.pdf)

An analysis of the evaluation criteria and procedures was made to provide model Terms of Reference (TOR) for the scientific evaluation of CORE Organic pilot project proposals and to provide checklists ready to use for transnational research programmes in organic farming. These results will also contribute to the improvement of the evaluation procedure at the national level.

The questionnaires mentioned in Section 5.1 were critically analysed as regards the questions on evaluation criteria and procedures. The analysis consisted of the following three parts:

- Part 1 “feedback”: The appropriateness of the chosen evaluation criteria was examined by critically discussing the experiences of the pilot call with the target groups involved.
- Part 2 “analysis”: The results of the pilot call were used to identify the most important evaluation criteria responsible for the rejection or acceptance of proposals.
- Part 3 “literature”: The analysis of the evaluation criteria and process was extended by including common evaluation practice based on a literature review.

A set of 19 evaluation criteria was proposed for the evaluation of the CORE Organic pilot projects, grouped under 6 headings:

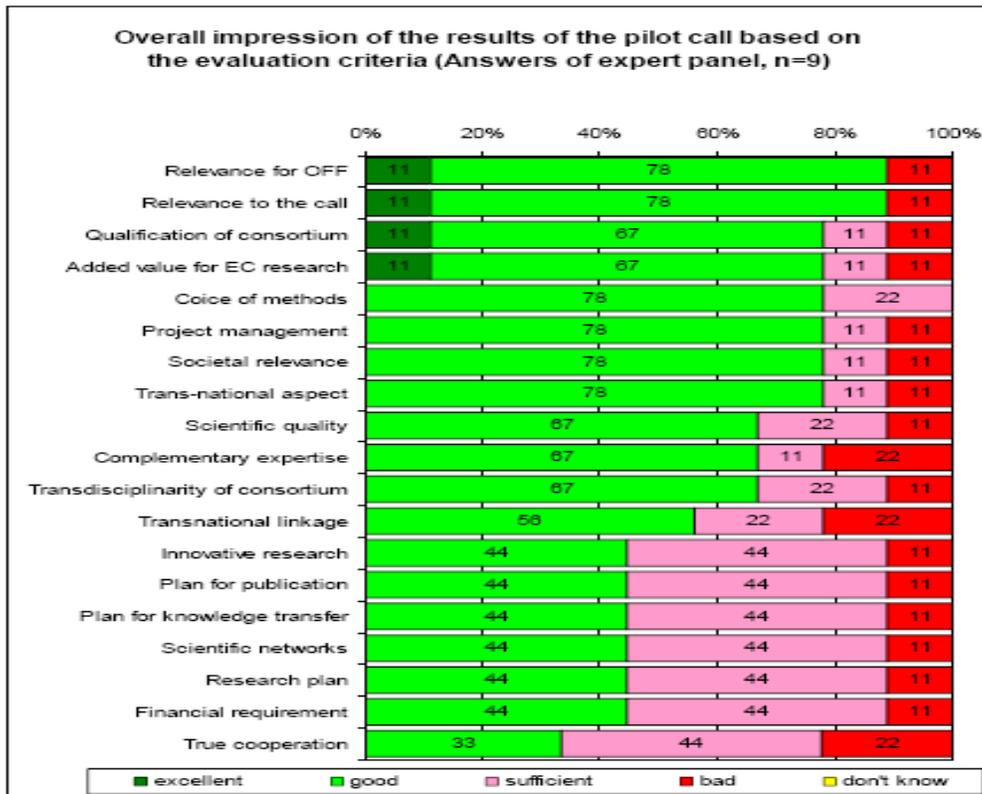
<b>Scientific Innovation:</b>	Innovative research; scientific quality
<b>Methodology:</b>	Choice of methods; plan for publication; plan for knowledge transfer
<b>Consortium:</b>	Qualification of consortium; complementary expertise; transdisciplinarity of consortium; true cooperation; transnational linkage; scientific networks
<b>Project management:</b>	Project management; research plan; financial requirement
<b>Relevance:</b>	Relevance for organic food and farming; relevance for the call; societal relevance
<b>Added value:</b>	Added value for EC research; transnational aspects

The results of this analysis was published in D5.2: Alföldi, T., Niggli, U., and Bellon, S. and Blanc, J. (2007): Scientific evaluation of transnational projects – between credibility and national preferences.

The survey showed that the proposed set of nineteen evaluation criteria mainly fulfilled the expectations of most target groups involved in the CORE Organic pilot call. However, some of the respondents wished to have a stronger focus on aspects of interdisciplinarity. The actual list of criteria contained already three criteria dealing with different aspects of interdisciplinarity, and it was suggested that these criteria could be regrouped into a new main category called *interdisciplinarity*, which otherwise tends to be underestimated in relation to the criterion *qualification of the consortium*. A similar splitting could be made for the main category *methodology*, in order to encourage researchers to apply innovative methodological approaches.

The suitability of the criteria as assessed by the expert panel is shown in Figure 7.

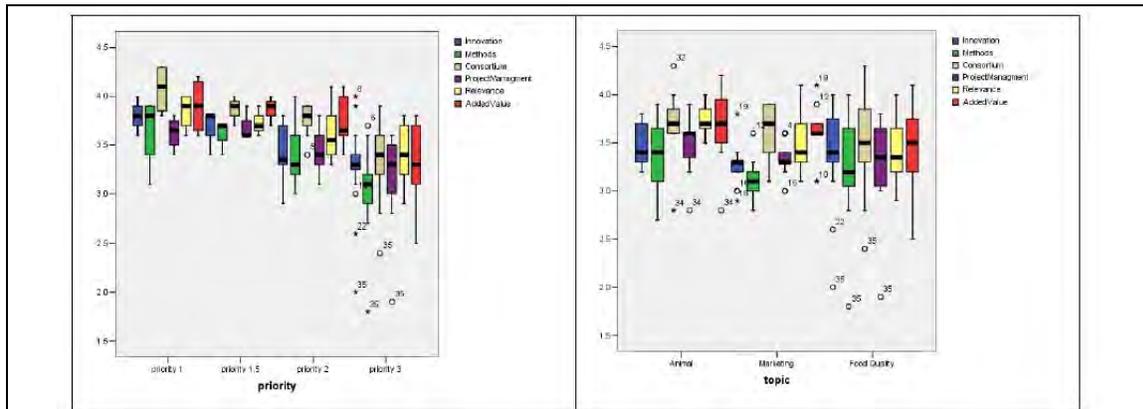
Figure 7: suitability of evaluation criteria to be as assessed by the expert panel, based on a 6 page proposal.



### How submitted proposal fulfilled evaluation criteria

The analysis of the scientific evaluation of the proposals submitted under the pilot call showed that rejected proposals had received insufficient scores regarding methodological criteria. Proposals which were given a high priority showed higher scores for the criterion *relevance* (see figure 8). In order to improve the chance to succeed in future calls, proposals should therefore focus on the criteria *methodology* and *relevance*.

Figure 8: Box plots of means of the evaluation of 36 CORE Organic pilot project referring to the priority categories (left) and the topic categories (right).



### Scientific evaluation and final selection

Some of the comments of the applicants showed that handling the gap between the scientific evaluation and the final selection of organic food and farming research projects is the main challenge for a successful evaluation of transnational research in the future. To overcome this conflict, different measures were suggested, such as (i) a more precise description of the call topics, (ii) a two step application procedure, (iii) a commitment of all participating members in the call to contribute to the funding of all topics, and (iv) a more transparent procedure defined beforehand, and a more confidential evaluation and selection procedure.

### Additional aspect from the literature review and the lessons learnt in the pilot call

In addition to the survey carried out with the actors involved in the pilot call, the review of the literature revealed further potential for optimising the evaluation criteria and the call procedure. However, almost all publications on the topic of peer reviewing or research evaluation address new challenges from a conceptual perspective. These new challenges are paradigmatic changes in science and research and have brought new complexity and uncertainty degrees into the field of research evaluation. Further work should particularly focus on refining of criteria, giving them clearer definitions and boundaries – especially the creation of a main category *interdisciplinarity* is of crucial importance. This would allow development of new and more suitable sub-criteria to better balance *scientific quality* or *robustness* on the one hand and *interdisciplinarity* and *innovation* on the other hand.

The survey on the pilot call evaluation showed that the criteria and procedures used in the CORE Organic pilot call only partially addressed the new challenges which have evolved due to the specificities of organic food and farming. Interdisciplinary and innovative aspects should be addressed in a more appropriate way.

It is therefore suggested that the decision-making process should be open to a wider community of experts (management experts, research users - i.e. organic farming association representatives) in order to assess cooperation, management concerns and transnational aspects better. The way national priorities are integrated in the decision-making process should be thought over and the transparency of the procedure should be improved. Mechanisms should be implemented that makes it possible to fund a few “risky” research projects and to facilitate newcomers to enter the arena and to promote “curiosity issues” research projects. Other assessment steps could be im-

plemented for those projects that were identified as particularly innovative but methodologically less robust. This may include the tutorial of the ongoing research projects and the evaluation of the results.

### **5.3 List of excellent experts for peer reviewing, evaluation and training**

A draft “list of excellent experts” (staff of funding agencies, programme managers and project managers) for peer reviewing and evaluation was prepared in 2006. All partners of the CORE Organic project provided lists of experts from their countries. The addresses (764 in total) were stored in a database, and during 2007, all experts were asked by e-mail to confirm that they agreed to appear on this list as well as to check their address details. The experts were also asked to indicate their overall research area and briefly characterise their expertises. The contact details of those experts (372) who responded to the survey are available in a searchable database at the CORE Organic web portal at [www.coreportal.org/experts](http://www.coreportal.org/experts). The contact details can be searched by keyword, by subject area and by country.

For the evaluation of project proposals received in answer to the CORE Organic pilot call, 9 experts, 3 for each thematic area, were selected based on their expertise. The expert panel members and the chair person for the evaluation of the research project proposals submitted for transnational funding by the CORE Organic partners were briefed directly on their tasks at an Expert Panel Meeting held in Stockholm in February 2007, which gathered 7 experts and the chairperson (2 experts were not able to attend). Specific Roles and schedules were described in the Guidelines for evaluation of applications within the framework of the CORE Organic pilot call, and a report of the panel meeting was prepared.

## **6. Identifying and prioritising research topics (WP6)**

WP6 had the overall objective to identify, prioritise and coordinate future organic farming and food research between the 11 CORE Organic partner countries. This objective could be broken up into 6 more specific objectives; i) to identify and prioritise possible topics of common interest to all/some of the partners; ii) to identify research areas where increased cooperation could bring major synergies and progress; iii) to assess the level of interest in co-funding projects; iv) to provide recommendations on how to overcome barriers (legal, organisational and administrative) to joining activities between national and regional research schemes; v) to make recommendations on best practice within research programmes; and vi) to assess opportunities for joint research programmes and describe the extent of transnational collaboration that is likely to occur.

To obtain these objectives a workshop was held to create and prioritise a list of future topics of common interest. Besides recommendations on how to overcome barriers for transnational research cooperation, on best practice within research programmes, on opportunities for specific joint research programmes and utilization of common research facilities were made (Section 6.1). In Section 6.2 an assessment of the interest of the partners in any of the priority topics and future collaboration and coordination was made.

The work resulted in 3 key deliverables, i) a report providing a list of topics which require new research; ii) a matrix highlighting research priorities; and iii) plans for funding collaboration in relation to the research priorities identified. The two reports, “Identification and prioritisation of collaborative R&D” (section 6.1 below) addresses deliverables i) and ii) and the report “Prioritisation and coordination of collaborative R&D” (section 6.2 below) addressed deliverables ii) (updated) and iii).

The work in WP6 was closely linked with the work in WP4, which had as one of its objectives to identify research areas, where an increased cooperation between national or regional programmes could bring major synergies and progress (see chapter 4).

### **6.1 Identification and prioritising a list of future research topics**

[http://www.coreorganic.org/library/pub/D%206\\_1%20og%20D%206\\_2\\_Final\\_30NOV2007.pdf](http://www.coreorganic.org/library/pub/D%206_1%20og%20D%206_2_Final_30NOV2007.pdf)

#### **Priority setting of research topics.**

Organic food and farming research topics were identified using a range of methods. Research strategies and other relevant documents were examined for each partner country in order to identify the full range of research areas for consideration. In March 2006 a workshop for all partners was held in Florence, Italy, to identify those research topics that were of common interest to at least 3 of the partners. The topics identified were placed in a matrix and scored for priority by each partner on a scale of 1 (low) to 3 (high). This exercise was carried out twice. The results from the first exercise in May 2006 was published in the D6.1 & D6.2 report: Murphy-Bokern, D. and Saulun, F. (2007): Identification and prioritisation of collaborative R&D and were used as the basis for topics for the pilot call for research projects. The prioritisation exercise was repeated in August 2007 to highlight any shifts and to identify potential topics for future research.

The priority matrix was intended to assist each participant in assessing the priorities for research in their own national programmes, and to provide a basis for possible future collaboration between national programmes. The matrix may also be used in future negotiations between countries concerning involvement in jointly funded research projects.

As a result of the prioritization operation explained above, seven topics reached a high score in the prioritization, 17 topics a medium priority and 13 a low priority. The 7 topics which reached a high score were:

- Animal disease and parasite management, including preventative health and improving therapies to reduce reliance on antibiotics.
- The management and optimisation of nutrients within organic systems.
- Impact of organic farming on the environment (positive and negative), including biodiversity. Identification of agricultural practices that maintain biodiversity.
- Quality of organic food – health and safety.
- Innovative marketing strategies. Identification of successful marketing methods. Local market.
- Research on the effectiveness and scale of national policies and instruments.
- Weeds, pests and diseases management

Some of the research themes were recognized to be too general and might have been lower scored as a result. These would need to be refined in order to increase their chance in developing into a relevant collaborative project.

The list was used by the partners to select the following 3 topics for the joint CORE Organic pilot call:

- ***Animal disease and parasite management, including preventive and health improvement therapies to reduce reliance on antibiotics.***
- ***Quality of Organic Food – health and safety***
- ***Innovative marketing strategies. Identification of successful marketing methods. Local markets.***

### **How to overcome legal and administrative barriers for transnational research funding**

Recommendations were also made on how legal, organizational and administrative barriers for joining activities between national and regional research programmes could be addressed.

With the exception of two partners, national funding can only flow nationally to partners' own national research establishments. There are also other constraints, which have implications for the input of partners to both prioritization and implementation. Despite these constraints, investment by partners in pursuit of common research outputs remains possible through mutual alignment of the partners' national investment in national projects. It is therefore recommended that this should be the principal means of pursuing transnational research. This would essentially be a bottom-up approach with partners themselves clustering around themes common to them on a case-by-case basis, and individually funding the projects nationally to meet the common objective. This means there would be no jointly funded projects, as the procurement of each national component would be a matter for the relevant partner. The administration and organisation of each project would be managed at the national level. Joining activities therefore would involve mainly extensive commu-

nication between the relevant partners and between the research providers each partner chooses. This approach will avoid legal barriers as the partners involved will conduct their part of the project in their own country following their normal way of procuring research.

The main research management challenge will be the definition of the research outputs that each partner will fund, and the co-ordination of the resultant procurement so that the suite of national projects are mutually complementary. It is suggested that the imposition or presumption of a common procurement method (e.g. open calls) should be avoided leaving the investment route open to each partner. The focus of joint planning should be on what each partner procures and when it will be delivered, not how the investment would be made.

### **Recommendations on best practice within research programmes**

In the longer term, most partners could give consideration to removing the constraints on where they fund research so that they can fund research jointly and pro-actively to meet a common partners' research agenda.

With respect to best practice within research programmes and in the context of the long-term effectiveness of ERANET based R&D, it is recommended that the role of partners (i.e. the Ministries and Research Councils) in the definition of research targets and longer term research outcomes be strengthened. A stronger "intelligent customer function" within partner organisations would help Core Organic partners set the research agenda together and direct common research activities. This would complement the input from research establishments. Without such an increased capability to drive the research agenda, ERANETs can be only partially successful. A stronger internal research management capability would also allow ERANET partners to use a wider range of procurement options without compromising the effectiveness of research spending, hereby enabling more strategic managed programmes and long term commitments to be made than is possible through open competition calls.

External stakeholder engagement could inform partners' development of their individual research strategies and needs. Stakeholders are defined here as anyone outside the partner Ministry or Research Council that is affected by the research investment decision.

Defra has presented their experience of using stakeholder engagement in developing research needs, to inform other partners. A report on the Defra project 'Stakeholders issues and aspirations to inform future public funded research in organic farming (OF0350) is available on the Defra website and on the orprints website:

[http://www2.defra.gov.uk/research/Project\\_Data/More.asp?I=OF0350](http://www2.defra.gov.uk/research/Project_Data/More.asp?I=OF0350)

### **Opportunities for specific joint research programmes and utilization of common research facilities.**

The report on facilities (section 4.2) showed common research facilities where collaboration might be encouraged. There are many common facilities that can cover common research topics and fewer in some more marginal research areas, as for example the study of specific crops (i.e. olive). However, work can be undertaken where there is a clear need identified by three or more partners. It is also important to remember that most partners can provide funds for their own institute only, and therefore will participate in the project if relevant national research facilities are available.

To support the Core Organic project and any other transnational agricultural research efforts, Defra has funded a project that will deliver a tool to help identify common production conditions across the EU. Results have not been included in this report but should be available on the Defra website and on Organic Eprints:

[http://www2.defra.gov.uk/research/Project\\_Data/More.asp?I=OF0355&M=KWS&V=Crops](http://www2.defra.gov.uk/research/Project_Data/More.asp?I=OF0355&M=KWS&V=Crops) )

Depending on the common research themes identified in this ERANET, this tool should provide partners with the opportunity to systematically look at the use of agro-ecological and other spatial data to inform the prioritisation of organic farming transnational research in Europe.

## **6.2 Prioritisation and future coordination of collaborative R&D**

[http://www.coreorganic.org/library/pub/D%206\\_3\\_Final\\_30NOV2007.pdf](http://www.coreorganic.org/library/pub/D%206_3_Final_30NOV2007.pdf)

The prioritisation exercise of research topics for collaborative research was repeated in August 2007 to highlight any shifts and to identify potential topics for future research collaboration. This exercise was published in the D6.3 report: Murphy-Bokern, D., Salaun, F. and Barnard, L. (2007): Prioritisation and coordination of collaborative R&D.

The exercise revealed that there were no major differences compared to the first exercise carried out 1½ year earlier, though there was a slight shift in some of the rankings. The top three research topics after the second prioritisation exercise were the following:

- Impact of organic farming on the environment
- Research on the effectiveness and scale of national policies and instruments
- Animal disease and parasite management.

Overall, all partners were interested in co-funding transnational research in organic farming and food. Recommendations on how to avoid the legal and administrative barriers that currently exist in cooperating transnationally were identified, as well as recommendations on best practice within research programmes. In particular, a number of legal, organisational and administrative barriers were highlighted which limited the ability of the partners to produce a joint pool (common pot) of at least €3 million per year. Instead it was decided to make the transnational funding by means of a virtual common pot (each national funding body finances only its “own” researchers in the transnational research project). The partners succeeded in the creation of a virtual common pot of €8.3 million over the 3 year period 2007 - 2010, with the contribution from each partner ranging from €53,000 to €1.867,000.

Regarding the assessment of opportunities for joint research programmes and describing the extent of transnational collaboration that may occur, the partners agreed that those countries, which are interested in any of the priority topics, should work together to develop a mutually acceptable specification for the research, and agree how the research should be led and funded. This might involve only 3 countries, or all participants may have an interest. In each case, only those countries, which agree to provide funding for the research topic, will be involved in the final specification of the research, and the decisions on how to lead or coordinate the research. The type of collaboration or coordination will be decided between the relevant partners.

It was decided to base collaboration between countries on common interest for research needs. Calls for projects should be managed nationally by each partner; only results should be shared by the partners. All partners were interested in participating in transnational projects. Some partners were interested in separately funding research nationally on issues agreed by several partners as part of a series of national projects making up a transnational effort. This mechanism should be further explored as part of the joint funding.

Due to the complexity and time constraints of agreeing the transnational funding, it was not possible before the formal end of the CORE Organic project for partners to develop more detailed/specific project specifications and to get full agreement on the funding. It was suggested that this should form part of the ongoing discussions between the partners on maintaining the network after the formal end of the CORE Organic ERA-Net.

## **7. COORDINATION AND IMPLEMENTATION OF FUTURE RESEARCH TOPICS WITH JOINT FUNDING (WP7)**

The objective of WP7 was to initiate and coordinate transnational research programmes in future topics within organic food and farming, and to fund transnational research projects from a pool of at least 3 million € per year by the end of the CORE Organic project.

The goal of this WP was based on the fact, that in total, the CORE Organic countries put app. 60 million € into research in organic food and farming per year. By aiming at 5 % of the annual total average input into organic research, it should be possible to coordinate and fund at least 3 million € per year by the end of the project. The 1<sup>st</sup>. pilot call was made for three topics identified as high priority during the prioritization of research topics (see section 6.1): “animal disease and parasite management”; “organic food, quality and safety”; “innovative marketing strategies”.

To meet the objectives of WP7 an agreement on the funding procedure was made (Section 7.1) and a model for the first call and evaluation of CORE Organic research proposals was made (Section 7.2) and finally an evaluation of the pilot call was made, which was published in D7.3 (Section 7.3)

### **7.1 Agreement on funding procedure**

A paper concerning “Funding procedures for transnationally funded research” was presented and discussed at a MB-meeting in October 2005. Based on that a questionnaire was developed, which addressed the possibilities and barriers in creating transnational funded research and it was sent out to all 11 funding bodies mid November 2005. The results of this consultation was presented and discussed, and it was decided that a number of possible procedures for transnational funding should be evaluated, selected and described for future common choice, when three or more countries decided to fund specific research topics transnationally. It was concluded that because legal and administrative barriers in most of the participating countries made it impossible to apply a real common pot, the first joint pool should be virtual in the sense that each funding body only fund national researchers. All 11 CORE Organic partners agreed to jointly fund the 1<sup>st</sup> transnational call by means of “virtual” common pot funding. The partners contributed a virtual common pot of €8,3 million – a bit lower than the goal of €3 million per year. The €8.3 million corresponded to 4.7 % of the total national budget of the partner countries spent on organic food and farming research.

### **7.2 Model for call and evaluation of proposals for CORE Organic pilot projects.**

The timeframe for the call was amended to be able to issue the first call in September 2006 and to establish the first transnational projects by July 2007. The pilot call text and additional guidelines for application, including the evaluation criteria were drafted, and the partners agreed to the pilot call and evaluation procedures at their meeting in August 2006. The pilot call was announced on 5 September 2006, with a deadline for submission of proposals by 1 December 2006. The call and guidelines can be found at <http://www.coreorganic.org/research/pilotcall.html>, and the application documents, which were delivered by FORMAS can be seen at <http://direct.formas.se/default2.asp> .

37 proposals were submitted, and of these, 36 were eligible for funding, corresponding to a total budget of €35 million . The eligible applications were scientifically evaluated by an expert panel on a meeting in Stockholm, 19 - 20 February 2007 (see section 5.3). Of the 36 eligible proposals 17, corresponding to 47 % were above the threshold for the scientific evaluation, corresponding to a budget of €19 million. At a Governing Board meeting in Ede (NL) 1- 2 March 2007 it was decided to support 8 research projects corresponding to €9 million and a success rate of 22 %. Of these, three applications were accepted for financing without modifications, while the consortia behind the other five applications were asked to reformulate new applications due to the fact that certain co-applicants could not obtain the needed funding from their respective funding body). The eight projects, which obtained funding were:

**AGTEC-Org: Methods to improve quality in organic wheat**  
**ANIPLAN: Planning for better animal health and welfare**

**COREPIG: A tool to prevent diseases and parasites in organic pig herds.**  
**FCP: How to communicate ethical values.**  
**iPOPY: Innovative public organic food procurement for youth.**  
**PathORGANIC: Assessing and Reducing Risks of Pathogen Contamination in Organic Vegetables.**  
**PHYTOMILK: What makes organic milk healthy?**  
**QACCP: How to assure safety, health and sensory qualities of organic products.**

All eight projects were financed in the end (see <http://www.coreorganic.org/research/index.html>).

The funding by means of the virtual common pot reached almost 2.8 million € per year for the eight pilot projects which all had a duration of 3 years. National contracts were negotiated between the funding bodies and the participants, and on top of that an agreement was made on the transnational obligations of the 8 consortia towards the CORE Organic funding bodies (i.e. requirements on reporting and publication). The projects were initiated shortly before CORE Organic ended in July 2007, are they run for 3 years until 2010.

At the same time a cooperation agreement between the funding bodies was drafted to secure the cooperation on monitoring and evaluation of the CORE Organic pilot projects after CORE Organic was finalised.

At a kick-off meeting for the 8 CORE Organic projects in Vienna, Austria, in September 2007 it was decided by all the partners to continue the cooperation in a CORE Organic Funding Body Network (FBN) after the end of the project in order to monitor and evaluate the 8 research pilot projects and to broaden and deepen the cooperation between European organic research funding bodies in the future. Therefore it was decided to draft a strategy paper for the future collaboration, and a first meeting in the CORE Organic FBN took place in Copenhagen, Denmark already in November 2007 – only 2 months after the CORE Organic project ended.

### **7.3 Evaluation of joint funding procedures and collaboration**

[http://www.coreorganic.org/library/pub/D7\\_3\\_final\\_22NOV2007.pdf](http://www.coreorganic.org/library/pub/D7_3_final_22NOV2007.pdf)

The chosen funding procedures for the CORE Organic pilot call and models for joint funding collaboration were evaluated. Basis for the evaluation were the following:

- statistics on the results of the pilot call,
- self-evaluation by management board members
- results from an online questionnaire filled in by four target groups of the CORE Organic call: applicants, members of the evaluation expert panel, CORE Organic National Call Contact Persons (NCCP) and members of the CORE Organic Governing Board
- experiences from other ERA-NET calls (survey and review on ERA-NETs)

The results of the evaluation were published in D7.3 report: Geber, U., Kienegger, M. and Silmbrod, A. (2007): CORE Organic Final report – evaluation of pilot call.

In the final report the outcome of the pilot call was summarised and an analysis of the results of the self evaluation and questionnaire investigation plus the experiences from evaluation of other ERA-NET calls were presented together with a discussion on future challenges. The report was presented at the Kick-off meeting in Vienna in September 2007. Here practical experiences were discussed (“lessons learned”) from overcoming barriers in transnational research cooperation with members of the European Commission (DG Research), coordinators and participants of other ERA-NETs (e.g. BIODIVERSA, CRUE, ERA-ARD, ERASysBIO, EuroTransBio and SEE-ERA-NET), representatives from new member states (Estonia, Hungary, Poland, Slovakia), other interested stakeholders from the organic food and farming community (agricultural scientists, funding bodies, public authorities and food retailer organisations) and participants of the CORE Organic pilot projects.

### **Self-evaluation**

A **self-evaluation** carried out by the members at the management board (MB) meeting after the final selection of project proposals revealed that MB members had perceived the coordination and implementation of the call generally as good. However, they also saw room for improvement concerning details of the evaluation procedures, the transparency of the funding selection process and asked for more flexibility concerning the applied funding model.

### **Results of the online questionnaire investigation**

The general response to the **online questionnaire** was rather good as between 45 (NCCPs) and 90% (expert panel members) of the individual target groups filled in the questionnaire. The evaluation of the funding procedures of the CORE Organic pilot call was done according to the different call phases (preparation, application, scientific evaluation, project selection and follow-up).

#### *Preparatory phase*

During the preparation phase, the funding model of the “virtual common pot funding” was chosen, as it allowed all CORE Organic partners to participate in the call, which was considered to be important by the majority of the Governing Board members.

#### *Application phase*

Answers to the questionnaire revealed that all target groups were mainly satisfied with the CORE Organic pilot call. This was particularly due to sufficiently high quality of information provided to the applicants through the website plus a “Frequently Asked Question” section and the NCCPs, which usually managed to solve any problem arising. However, the functionality of the electronic application system was considered mainly poor.

#### *Evaluation phase*

The experts involved in the scientific evaluation procedures generally judged the quality of the supplied information and timing of the individual steps of the evaluation procedures (remote assessment and panel meeting) to be of good quality. However, a preparatory information meeting prior to the expert panel meeting in order to discuss the evaluation criteria would have improved the overall procedure. The feedback to the applicants concerning the outcome of the scientific evaluation and the final selection of projects was considered to be very good or at least good by only half or the applicants, as many of them experienced a lack of information, especially when their project proposals were rejected.

#### *Selection / funding phase*

This phase was considered poor by more than half of the GB members, as a discrepancy to the scientific evaluation was perceived. This phase is seen to be the most critical one for future improvement.

#### *Overall call procedures*

The overall procedures were judged to be good by the GB members. Apart from the evident time constraint between the scientific evaluation and the GB meeting for final selection, the overall timing of the call was also considered to be good. The most critical parts of the call for future improvement were seen in the selection procedures and the application procedure suggesting a 2-step application procedure. Potential options for how to maintain the partner network without ERA-NET funding are also of crucial importance.

### **Governing Board perspectives on strategic issues**

CORE Organic plays a very important role for the internationalization of the participating organisations and their addressing of strategic issues. In particular, the ability to compare research-funding mechanisms between countries was considered to be an added value. The majority of partners were motivated to participate in the call by general research aims such as improved research networks and scientific quality or coordination of knowledge production. Although a majority of the GB partners preferred to use the virtual common pot funding model also for future calls, all partners were in favour of a development towards a true common pot funding model. As the GB members perceived the added value of CORE Organic as high, they were very much in favour of continuing

the network beyond the end of CORE Organic, even without the funding from the ERA-NET scheme.

The following suggestions on how to improve the CORE Organic call procedure were given for the different call phases:

*. Preparatory phase:*

- The use of a two-step application procedure
- A formalised procedure to define call topics including common issues at European level and complex interdisciplinary problems, additional to the pooling of national programmes.
- Full agreement on call topics (i.e. no particular national restrictions) among funding partners
- Assignment of funds to each individual call topic and/or allow for restricted calls with a smaller number of funding institutions.
- Aim towards a more even funding between participating partners in the call.
- More detailed information in call documents, e.g. national funding rules.
- The use of Milestones and Deliverables in application documents.
- Larger application document, with more space for project description (e.g. 4 to 6 pages only for the first step application draft and a larger more detailed, final project description in the second step)
- Involvement of all the CORE Organic partners already early in the preparatory phase
- The early setup of a FAQ forum.

*Application phase*

- The setup of a central contact point (e.g. call secretariat) or at least improved communication and information exchange between individual NCCP on FAQ.
- The use of a fully adapted web-based application system.

*Evaluation phase*

- If funding is assigned to each specific topic of the call, evaluation by experts is suggested to be restricted to the applications in the topic of their field of expertise,
- See also CORE Organic D5.2 report.

*Selection phase*

- A formalised procedure including, discussion on selection of criteria and written selection feedback to applicants.

Apart from this, more general suggestions were made by the respondents including e.g. the generation of road maps with set-up check points for call management, and the allocation of sufficient time for planning of the call to make space for continuous follow-up, analysis and adjustments.

### **External assessment of the ERA-NET scheme in FP6**

Comparison of the CORE Organic call with a survey on joint activities in individual ERA-NETs showed that problems encountered during the different call phases were comparable to those in other ERA-NETs. This was due to the evident learning-by-doing aspects in ERA-NETs, as participants of ERA-NET projects usually have no previous experience with the scheme.

### **Strategic issues and future cooperation**

Strategic aims for the future were established by the CORE Organic Funding Body Network. The following subjects should be considered

- Increase of the research community in organic farming
- Exchange of information and experiences on funding mechanisms
- Coordination of knowledge production
- Strategic topic formulation
- 

### **Goal conflicts**

- Topic formulation: openly formulated vs. restricted calls

- Number of participating organisations: all vs. few funding institutions participating in a call
- Funding model: virtual pot vs. true common pot

Finally, lessons learned during the various call phases are discussed.

### **Future aims to be fulfilled**

Based on the different evaluations and taking into account experiences from other ERA-NETs four strategic aims were identified. They are presented below without any order of priority.

#### *Increase of research community in organic farming*

Several partners expressed a wish to increase the organic farming research community. One aim with the CORE Organic joint call was to create a critical mass of researchers (from different partner countries) of the rather scattered and small organic food and farming research community. In this way funding organisations expected more efficient knowledge production/generation which gives more value for spent money /funding.

An additional aim mentioned by some partners was to not only increase the organic farming research community by involving national researchers in organic farming, but also to complement or integrate it with researchers from adjacent research areas such as health, food quality, environment or climate. The goal of such an enrichment of complementary scientific competence would be an improved scientific quality of research but it could also improve the management in research of more complex interdisciplinary problems of organic food and farming systems in relation to sustainable development issues. Special activities in order to create fora for researchers from different fields to meet and interact would be needed to obtain such future integrated research applications.

### **Exchange of information and experiences on funding mechanisms**

The prerequisite of ERA-NET projects, that partners are restricted to programme owners and managers, was appreciated by several CORE Organic partners. In the formed network, funding institutions were able to learn from different funding mechanisms and procedures in partner countries and exchange experiences. There was an interest among partners to maintain the created network in the future, even outside an ERA-NET project, which however, should be possible to obtain.

Although most partners judged that virtual common pot funding was the most realistic in a short and medium term perspective, they were also positive concerning a development towards true common pot funding or rather interpreted as mixed funding. One approach in this direction is restricted calls with only few partners.

### **Coordination of knowledge production**

Coordination of knowledge production and avoidance of duplication was identified as an important outcome by the CORE Organic GB. The thorough work in CORE Organic on screening research mechanisms, funding, programmes and ongoing research on organic food and farming systems in the partner countries was an important source of information to minimise duplication of knowledge production. To maintain the possibility to coordinate future knowledge production, the database Organic Eprints needs to be maintained and actively updated by CORE Organic partners. An agreement on the maintenance and updating procedures of Organic Eprints need to be fulfilled before the end of the CORE Organic ERA-NET. A maintained network with at least annual meetings will probably also be necessary in order to coordinate future national activities in food and organic farming research.

### **Strategic topic formulation – national and common topics**

Some problems of the call application and selection phases were related to the earlier topic formulation. Partners prioritised the involvement of all partners in the CORE Organic pilot call and all national research needs of partners were pooled and negotiated in CORE Organic (WP6). A somewhat differing commitment between participating partners of the CORE Organic joint call could however be noted, and this was commented by one GB member. Partners also chose to devote substantially different amounts of funding to the joint call and selected projects.

The problem of topic formulation has also been reported in other ERA-NETs (see *Survey on joint activities in individual ERA-NETs*) as 37 percent of partners who chose not to participate in ERA-Net calls referred to difficulties in reaching a common agreement on a common call theme.

As suggested in this report, CORE Organic partners should not be able to apply national restrictions on the topics of future joint calls. Apart from this, actions need to be taken to attract enough funding institutions. The joint calls should offer a solution to problems of generating research in prioritised areas at the national level.

Procedures for the formulation of additional strategic research needs to be developed and could possibly create a more even commitment for future joint calls. One aim of the CORE Organic ERA-NET was to increase the interdisciplinarity of research. This issue was treated in the D6.3 report of WP6 (*Identification and prioritisation of collaborative R&D*), but it is also related to call procedures. To obtain interdisciplinary research applications and consortia a more complex problem formulation is needed already in the topics as commented by GB members. Common research needs on a European level need to be developed and the involvement of national and European stakeholders in the formulation of such research needs has been suggested. The challenge is to formulate topics that are interesting enough for a sufficient number of funding institutions to allocate funds.

### **Goal conflicts**

#### *Openly formulated or restricted calls*

There were different views between partners on topic formulation. Some partners preferred restricted, narrowly formulated calls by funding institutions (with or without involvement of food chain stakeholders), i.e. top down formulated topics. Other partners argued for more openly formulated calls to let researchers formulate the most relevant research questions, i.e. bottom-up formulated topics. This probably reflects a true difference in research traditions between the CORE Organic partners. One possibility to handle this difference is to open up for several joint calls with fewer participating funding bodies.

#### *All or few funding institutions participating in calls*

Partners judged it important that all CORE Organic partners took part in the CORE Organic pilot call, and enough partners were prepared to moderate their demands on chosen topics to obtain this. For future calls funding institutions can be expected to be more demanding on the choice of topic. With a smaller number of funding institutions, fewer funds will be assigned to the chosen topics. On the other hand, with fewer partners, agreement on the funding model and more even funding or other means (i.e. mixed models) to facilitate the application selection phase will be easier.

#### *Virtual common pot versus true common pot*

The drawbacks of virtual common pot funding were evident in the CORE Organic pilot call. Due to virtual common pot effects and selection of topics there was not an optimum relation between the outcome of the scientific evaluation and the final selection of projects to be funded as commented by GB members, and there was a wish to work towards true common pot funding among partners in a long term perspective. As long as topic selection is only based on pooling of national programmes it could however be expected that true common pot funding could imply some negative effects on contextualisation and specific national relevance of individual research projects.

In the ERA-NET survey referred to above there was no tendency towards an increased use of true common pot funding in the future. Mixed model funding was suggested as a suitable solution with benefits in the selection phase, such as the possibility to use some part of the funding transnationally, but with mainly maintained national sovereignty. There are experiences from at least seven ERA-NET calls (see *Survey on joint activities in individual ERA-NETs*), where transnational transfer of funding occurred in order to close funding gaps in the selection phase.

## Lessons learned – recommendations bridging to future cooperation

### *Timing of call procedures*

The CORE Organic ERA-NET budget was less than primarily planned for and there was a shortage of time during the whole call process, especially during the evaluation and selection phases, but also the important preparatory phase with topic selection, suffered from time pressure. Other ERA-NET experiences show that the implementation of the call was considered much more complex than national calls by 41 percent of ERA-NETs and the preparation of the call was regarded by some as the most difficult and time consuming element of organising a joint call. A time frame for future calls has been suggested to meet the need of sufficient time for planning of the call and to make space for continuous follow-up, analysis and adjustments (see table 4).

Table 4: Suggested time frame for future calls.

Call phase	Time period					
Preparatory phase	8 months					
Application phase		3 months				
Evaluation phase			4 months			
Selection phase				1 month		
Contract and funding phase					4 months	
Total call procedure						20 months

The setting-up of a call secretariat (avoiding increased bureaucracy) for future calls would also simplify planning of the call phases.

### *Procedure for topic formulation*

A crucial aspect for future topic formulation is to reach a shared view among partners on strategic research issues. This could be obtained by applying methods and tools used for rational decision making, and by opening up for common research needs both within and outside existing national research programmes.

### *Two-step procedure*

Experiences from other ERA-NETs are that a two-step procedure was used for larger calls with project durations of several years. The reason for choosing a one-step procedure in the CORE organic pilot call was entirely due to time constraints.

### *Communication and information to applicants*

The applicants' evaluation of the pilot call showed the importance of fast and clear information throughout the call process. Communication channels and information including the early setup of a homepage, FAQ and information on the call concerning national restrictions and assigned funding to high quality science and selection feedback need further planning and coordination in future calls.

### *Procedure for final selection*

The final selection procedure needs to be clearly defined in advance and fully understood by all partners as well as all applicants when the call is launched. The use of mixed models for funding could tighten the relation between scientific evaluation and final selection.

### *Maintenance of future network*

The CORE Organic partners wanted to maintain the created network of funding institutions and most of them were interested to continue the collaboration even without support from ERA-NET funding. A Task Force was implemented in September 2007 to generate a set of suggestions for possible future cooperation. The legal formalisation of the bridging to the future Funding Body Network should be through a legal Cooperation Agreement. Apart from these actions the following bridging activities were suggested:

- Formation of a working group for the follow-up of a possible new ERA-NET application in 2009, i.e. based on suggestions by the Task Force.
- Annual CORE Organic GB/MB meeting with rotating responsibility/coordination

- Planned CORE Organic MB satellite meetings on targeted international conferences in the period 2007 – 2010.
- Final CORE Organic pilot project conference in September 2010.

*Budgetary issues*

The Task Force should also suggest a budget for the activities until June 2010, including, e.g.

- Follow-up activities
- Maintenance of the network
- ERA-Net application work
- A worst case scenario without ERA-Net funding, where joint call procedures need to be fully financed by the partners

## **8. Conclusion**

The ERA-NET, CORE Organic was successful in bringing 13 partners from 11 countries together to carry out common activities in relation to transnational organic research. CORE Organic successfully launched a transnational pilot call and subsequently selected 8 research projects to be funded by a means of a virtual common pot. The projects will be running until 2010. The ERA-NET allowed partners to obtain a map of various aspects of organic research in the partner countries, and to prioritise topics and develop common approaches for the pilot call.

The CORE Organic evaluation of the pilot call and the recommendations made throughout the project regarding priorities, best practices and evaluation methods etc. will be important to allow continued and improved transnational collaboration between the partners in the future.