



**ERA-NET on National and Regional
Programmes and Initiatives dedicated
to the creation and support of
'Competence Research Centres'**

- Final Report -



© Tom Schamp, Corien Struijk, Laszlo Csonka, Zsuzsanna Pohanka on behalf of the COMPERA consortium funded by the European Commission, 2010.

Many thanks are directed to Claire Griffin (INI), Martin Hussey (EI), Silke Stahl-Rolf (VDI TZ) and Anna Tropper and Otto Starzer (FFG), and the other COMPERA partners for their important contributions, for their feedbacks and comments and their insightful correction of the language and text.

Contact:

www.competence-research-centres.eu

info@competence-research-centre.eu

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COMPERA is targeted towards the creation of a sustainable network of programmes that are funding CRCs and was intended to support the strategic decision-making and governance of CRC programme owners (e.g. funding agencies and ministries) and CRC-managers at pan-European level. CRCs typically aim to bridge the gap between technological and economic innovation by providing a sufficient critical mass in a collective environment for both academics and industry. Their activities are multiple, for instance: pooling of knowledge, creation of new knowledge by performing different types of research, training and dissemination of knowledge, are typical examples.

1. EXECUTIVE SUMMARY

The **European Research Area (ERA) initiative** is one of the key elements of the **2000 Lisbon strategy of the EU** that aims to convert Europe into the world's most competitive and dynamic knowledge-based economy, capable of sustainable economic growth with more and better jobs and greater social cohesion by 2010. One of the central ideas is that the issues and challenges of the future cannot be met without much **greater 'integration' of Europe's research efforts and capacities.**

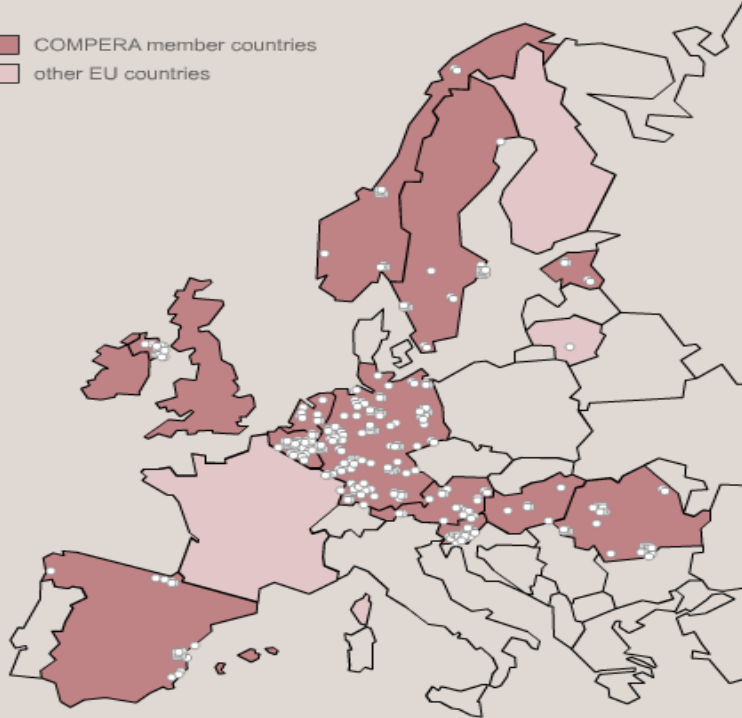
The specific objective of the **ERA-NET scheme**, launched in 2002 as part of the Sixth Framework Programme (FP6), was "to step up the cooperation and coordination of research activities carried out at national and regional level in the Member States and Associated States". Within this scheme **COMPERA** was targeted towards the creation of a *sustainable network, comprising national and regional programmes within Europe that are promoting Competence (Research) Centres.*

Starting point of this network between public agencies owning or running Competence Research Centre (CRC) Programmes was the **MAP-TN project**, a network on multi measures and multi-actors programmes funded by the STRATA programme of EU's Framework Programme 5 (MAP = Multi Actors and Multi Measure Programmes of EU's FP5), which created a stable platform for fruitful exchange of experience based on confidence and trust as well as a starting point of further cooperation. Making use of the acquired experience of MAP and giving a sequel to its recommendations, the partnership was broadened considerably and the COMPERA consortium was formed. Within COMPERA the idea was to test ways of co-operation between the programmes. A practice best characterized as a learning process whereby sharing expertise, developing best practices, creating synergies and implementing transnational initiatives form the central part for an effective co-operation and hereby following the greater objective behind the ERA-NET scheme.

The overall strategic objectives and the envisaged accompanying typical activities of the COMPERA project included:

- ❖ To create a networking structure in order to achieve a new sustainable co-operative culture;
- ❖ To develop synergies between the participating programmes by broadening the cooperation structures, preparing and implementing joint transnational activities;
- ❖ To prepare an alliance scheme allowing for long-term cooperation; and
- ❖ To demonstrate to the European innovation community the benefits of networking and coordination at the level of Competence Research Centre Programmes.

■ COMPERA member countries
□ other EU countries



The COMPERA project group, in bringing together **16 partners** (See text box at the end of this report) and their respective support programmes proved to be an effective platform to exchange knowledge and experience.

The **most important results** can be summarized as follows:

- ❖ The consortium proved to be successful in enhancing interactions among programme agencies and CRCs. On one side, **networking** was established in a 'formal' way through the regular meetings of the project partners on different 'home-locations' and (ad hoc) virtual meetings. On the other side, an almost even more important aspect of networking, was the organic growth through 'informal' contacts and exchanges between CRC programme managers (e.g. the participation of a programme advisor or coordinator of a CRC programme in an evaluation procedure in a fellow country). On the level of CRCs the collaboration was initiated on workshops and matchmaking events. These are considered among the most successful of the COMPERA-projects and clearly illustrate the potential interest and benefit of horizontal topic knowledge exchange between CRCs.
- ❖ The **COMPERA website** (www.competence-research-centres.eu) has been created to provide content on existing European centres and CRC support programmes. Furthermore this medium enables CRCs and CRC programme managers to find, share and use information and news on relevant events, calls, conferences and documents.
- ❖ A Joint Study to explore the **opportunities for international CRC collaborations** involving two parts: a generic study and an in-depth study of a number of selected cases of (potential) successful cooperation/opportunities.
- ❖ Anchored on the concept of a 'virtual CRC' a **toolbox** was developed. This toolbox addresses both programme and CRC managers and contains a summary of good practice and a selection of corresponding links.
- ❖ The establishment of a **network of national contact points for the sourcing of experts for professional evaluation of CRCs** and a simple method for any member to ask for such experts. The members (e.g. COMPERA partners) of this database of sources are nominated persons of each organization that are able to identify relevant experts for the evaluation of programmes/CRCs.
- ❖ A **set of performance or impact indicators** was collected and processes for monitoring and evaluation data collection were defined with the intention of supporting CRC programme development in their aim to measure both 'soft' as well as 'hard' effect and impact. Furthermore, a **study on monitoring and evaluation approaches and good practices** has been elaborated and disseminated in the CRC community.

Apart from these direct results, the network was successful in building further collaborations, ad hoc interactions and further indirect positive benefits, such as policy dialogue and learning. It stimulated the discussion of the opportunities and challenges relating to international cooperation of CRCs beyond Europe. In this sense, COMPERA had fruitful interactions and knowledge exchange with the **CREST Working Group on Industry Led Competence Centres (ILCC)**. That way the COMPERA networking activities were expanded and the benefits



increased by means of mutual participations and presentations at events, sharing of experiences and elaboration of best practices on governance, indicators, financing, sustainability, training, mobility and coordination across Europe.

In summary, the most important contribution of COMPERA to the ERA-scheme lies in:

- ❖ The networking of CRC-related activities;
- ❖ In some specific cases the mutual opening of national and regional research programmes (e.g. related to the consultation of foreign experts in CRC evaluation processes and CRC programme benchmarking); and
- ❖ The establishment of long-term cooperation between national programmes (owners).

Altogether, the activities in COMPERA contributed to a thorough understanding of the needs and possibilities of a more profound cooperation of CRCs and CRC programmes throughout Europe but also of its barriers.

The intended continuation of the established cooperation and network will undoubtedly benefit from **a number of lessons learned**.

COMPERA partners identified the following possible future forms of cooperation as feasible:

- ❖ Bilateral/multilateral informal cooperation;
- ❖ Conferences, workshops, match-making, "speed-dates" and alike;
- ❖ Networking, for example through: national contact points/contact persons at funding agencies and at CRCs, COMPERA-website, etc.; and
- ❖ Dissemination through COMPERA news service and e-newsletter on CRC-related and CRC-policy-related issues (EU and member state level).

The **extended networking activity** was formalised by signing a **Memorandum of Understanding** between the current consortium partners, restricted in time and to be evaluated after two years.

In conclusion, the COMPERA achievements, outlined in this report, may have been a tipping point for a further-reaching structuring of joint efforts and towards the shared objective of **integrating of Europe's CRC-related research and innovation supporting efforts**.

There is strong evidence that 'additionality' can be attributed to the COMPERA-project: without its existence, the established different kinds of cooperation between CRC's and CRC programmes in Europe would probably not have existed. Hence, COMPERA can be considered as a success, from a point of view of contribution to the ERA-NET scheme.



2. DURABLE COMPERA RESULTS AND PRACTICES

COMPERA succeeded in building-up a sustainable network, comprising national and regional programmes within Europe that are promoting CRCs.

(A) CREATING A NETWORKING STRUCTURE IN ORDER TO ACHIEVE A NEW SUSTAINABLE CO-OPERATIVE CULTURE.

Achieving a sustainable networking culture among agencies from different parts of the EU and among different CRCs is not an easy task and requires mutual understanding, trust and confidence. In order to build this favourable environment among the partners COMPERA took a multi-tier approach and launched different activities taking into account the different needs of the various CRC programmes and CRCs themselves. These activities include:

- ❖ **The COMPERA-CRC website** (www.competence-research-centres.eu) (See text box p. 9). The site is the potential anchor point for present and future networking activities. The site also offers two “learning” toolboxes both for CRC managers and programme managers on topics such as CRC governance and research management, monitoring and evaluation, public awareness, IPR issues. Further properties of the website are: a regular newsletter on CRC related issues (in operation since December 2009), a download area with documents relevant to CRC policies, detailed country pages, CRC profiles and topic-related portraits.
- ❖ **Networking of programme owners** (national and regional agencies, authorities). The COMPERA project group, in bringing together 16 CRC programme-owners proved to be an effective forum to exchange knowledge and experience on topics such as programme design and conditions, funding schemes, industry involvement, thematic focus areas. One of the highlights of the series of events was an international conference on CRCs (3 February 2009, Düsseldorf) organised by COMPERA, bringing together more than 60 participants from all over Europe to discuss good practice and future options of CRC programmes.
- ❖ **Networking of individual CRCs.** The CRC matchmaking event at the Hannover Fair (16-20 April 2007) resulted in 13 bi-lateral meetings of individual CRC managers from 6 countries. The initiative showed that such a formula works and can even result in unexpected outcomes, such as the successful meetings on thematic intersections that were observed. The CRC Workshop in Brussels (5 March 2008) was a

Central objectives of COMPERA

Objective A: Creating a networking structure in order to achieve a new sustainable co-operative culture

Objective B: Developing synergies between the participating programmes by broadening the cooperation structures, preparing and implementing joint transnational activities

Objective C: Preparing an alliance scheme allowing for long-term cooperation

Objective D: Demonstrating to the European innovation community the benefits of networking and coordination at the level of Competence Research Centre Programmes



suitable forum for the 30 participants to present opinions and discuss on the topic of long-term strategies of CRCs for durability and/or long-term embedding of achieved results. The Brussels CRC workshop is considered as the most successful of the COMPERA-project and clearly illustrated the potential interest and benefit of horizontal topic knowledge exchange between CRCs.

- ❖ **Interaction with the CREST Industry-led competence centres working group.** Many of the COMPERA partners also participated in the Working Group on Industry Led Competence Centres (ILCC) of CREST (27 May 2008) (Scientific and Technical Research Committee to the European Commission). In that way, these benefits were also disseminated to those COMPERA partners who had not participated in the CREST ILCC WG (meetings).

(B) DEVELOPING SYNERGIES BETWEEN THE PARTICIPATING PROGRAMMES BY BROADENING THE COOPERATION STRUCTURES, PREPARING AND IMPLEMENTING JOINT TRANSNATIONAL ACTIVITIES.

Effective action on far-reaching collaboration between CRCs (e.g. joint projects) or CRC programmes (e.g. joint project calls) proved to be very difficult. Nevertheless, **significant and valuable collaboration results** were achieved within the COMPERA framework.

- ❖ **A Joint Study on the International co-operation of CRCs.** When trying to develop measures at programme or agency level in order to encourage and facilitate cross-border pilot co-operations between CRCs, it became clear that it was almost impossible to achieve this kind of joint activity within the timeframe of COMPERA. Nine Countries/Regions participated in this joint initiative: Austria, Basque Country, Estonia, Flanders, Germany, Northern Ireland, Slovenia, Sweden and Valencia.
- ❖ **Instruments – toolboxes for CRCs.** Anchored on a concept of **'virtual CRC' a toolbox with 'good practice' examples** was developed. The COMPERA toolbox addresses both CRC managers and programme managers. The major categories of the toolbox for the CRC managers are: Research management / governance; Monitoring and evaluation; Public awareness; International cooperation; Private-public partnerships; and IPR issues. The toolbox for programme managers covers the following aspects: Programme Typology; Funding (incl. rules for state aid) & Sustainability of CRCs; IPR Issues; Program Promotion and

Indicators that build the basis of the COMPERA Pilot action concerning Monitoring and Evaluation.

Hard Indicators

- 1. The Number and Volume of R&D Projects; i.e. the type of Project (according to EU Common Framework), volume and share of public money*
- 2. The Number of participating Partners (Enterprises) (also Scientific Partners, SMEs, foreign)*
- 3. The Number of and opportunities for Spin-out and Spin-in companies; i.e. created Spin-outs and – ins / Potential for Spin-outs / -ins (is there any, why, why not, ...)*
- 4. The Number of newly created employment (FTEs & Heads / share of female staff)*
- 5. The Number of Patents / Publications / Trademarks (National / EU / international, refereed /....)*

Soft Indicators

- 1. Mobility of Staff (between partners); i.e. who left the centre and where did they go (to one of the partners or to another company – back to education,...)*
- 2. Involvement of Enterprises in Projects (active): essentially the share of in-Kind contribution*
- 3. Foreign investment in the centre; i.e. the number of foreign partners, money brought in by these Partners*
- 4. Research Training initiatives in the centre; basically the number of Training Programmes within CRC, Number of graduates of these programmes*
- 5. Increase of R&D expenditure in enterprises; i.e. the % of R&D expenditure before the CRCs, during the CRC and (ideally) after the CRCs.*



Communication; Monitoring and Evaluation; and Internationalization.

- ❖ **International experts for the evaluation of CRCs.** For the professional evaluation of CRCs, two different types of experts would be required. Firstly, 'generalist' experts, people that have experience of this type of centre activity (management, evaluation, industry-academia cooperation, building excellence etc). On the other hand, 'scientific' experts should be able to judge a centre's thematic work and development in an international context (either within academia and/or industry).
- ❖ **Monitoring and evaluation of CRCs.** The result of this activity was a detailed study of good practice in monitoring and evaluation of CRCs. This study was distributed in the CRC community and is available via the COMPERA website. In this report it is attempted to give some recommendations concerning monitoring and evaluations and to present some good examples of current practice. The material is drawn both from the most experienced members of COMPERA and overseas colleagues in USA, Australia and Canada.
- ❖ **Indicators measuring the performance of CRCs and their impact.** (See text box on the above page) A set of performance or impact indicators was collected and processes for data collection were defined with the intention to support CRC programmes in their aim to measure impact via both 'soft' and 'hard' factors, elements or activities. As such, a learning process was initiated aiming to lead to a more homogenous understanding of the methods and objectives of evaluation processes.
- ❖ **Ad hoc interactions.**

(C) PREPARING AN ALLIANCE SCHEME ALLOWING FOR LONG-TERM COOPERATION.

The COMPERA group has agreed to sustain those activities that have well established themselves during the project phase of the collaboration (2005-2010). Therefore these activities need modest additional efforts and can be implemented in the short run.

In order to show the clear commitment of COMPERA partners towards the realisation of the possible opportunities of sustained collaboration a MoU was developed by the partners (cf. Decision taken by the Steering Committee of 21 January 2010). Such document is a suitable form to record the scope of activities that the COMPERA partners have decided to carry on, to record the responsibilities related to these activities (for instance to appoint one central COMPERA contact person responsible for the updates and the follow-up of the COMPERA tasks and terms) and to allow the partners to provide empowered and identified routes to co-operation, correct intra-agency contacts. This Memorandum of Understanding represents an agreement between the participating COMPERA partners, whose signatures are appended hereto for the establishment of a COMPERA network that comes into place after the phase during which the COMPERA project was funded by the European Commission.

Via a **Memorandum of Understanding (MoU)** COMPERA members can commit themselves to further support the continuation of the COMPERA networking, tools and activities, including the maintenance of the COMPERA-website.

Another important field will be the organization of conferences that enhances the visibility of COMPERA and can prove its positive impact in the field. One way to proceed with this activity will be the opening of national conferences / workshops towards international participants.



The information platform of CRC experts are already existing and COMPERA partners can refer to it at any time they need to do so. A possible next step needs the decision whether to broaden this platform towards third parties, i.e. international experts from non-COMPERA member states.

In the month of April 2010 the MoU was proposed to be signed to all COMPERA partners, to be signed by (as many) current consortium partners (as possible). The MoU is restricted in time: for a two-year period and to be revised with each renegotiation of the terms.

An action plan for the future...

Connected to the implementation of the MoU the COMPERA partners have also developed **an action plan** plus a roadmap for the continuation of COMPERA beyond the official project's end in May 2010.

(D) DEMONSTRATING TO THE EUROPEAN INNOVATION COMMUNITY THE BENEFITS OF NETWORKING AND COORDINATION AT THE LEVEL OF COMPETENCE RESEARCH CENTRE PROGRAMMES.

The already mentioned **COMPERA-website** (See text box on this page) not only 'serves' the COMPERA-partners, but the information that is available on the public part of the website presents the CRCs in Europe to an international public, facilitates the collaboration between CRCs by supporting partnering activities; and helps to build a CRC community in Europe by opening the site to CRCs that are not (yet) covered by the COMPERA consortium.

In order to facilitate continuity and updating, the website is largely run on a de-centralized basis, with all COMPERA partners having decentralized access to the content management system. New items are automatically highlighted by an innovative web-crawling technology.

OTHER OUTCOMES

Finally, the evaluation of the pilot activities showed that COMPERA has had additional positive benefits that go beyond the scope of the pilot activities themselves. It greatly facilitated the policy dialogue by providing a network for the exchange of information regarding new political instruments. Amongst others, **instruments and policies**, which are above and beyond typical CRC-questions, were elaborated dealing with fiscal measures to stimulate innovation, IP protection issues, measures to attract top researchers and to promote "brain gain", and novel incentive schemes similar to the research voucher or tax schemes for R&D.

On the whole the COMPERA project stimulated the discussion of the opportunities and challenges relating to international cooperation of CRCs beyond Europe. In doing so, the project contributed to **policy learning** and, hence, to **an alignment of innovation policies and programmes**.

The COMPERA website contains the following services

- ❖ *Portraits of CRCs in Europe that can be searched via map-view and list functions;*
- ❖ *Portraits of the topics and countries covered by the CRCs;*
- ❖ *News, calls and events in the topics covered by the CRCs;*
- ❖ *A corresponding individualized newsletter service (from December 2009)*
- ❖ *Information on funding sources for the cooperation between CRCs;*
- ❖ *Feed-back function, especially for the acquisition of new CRCs;*
- ❖ *A download area; and*
- ❖ *Toolboxes for CRC managers and programme managers.*



Partners in the COMPERA project (at the end of the project duration, 31/05/2010)

Institute for the Promotion of Innovation by Science and Technology in Flanders (IWT) – Belgium

Austrian Research Promotion Agency (FFG) – Austria

Swedish Agency for Innovation Systems (VINNOVA) – Sweden

National Office for Research and Technology (NKTH) - Hungary

Enterprise Estonia (EAS) – Estonia

German Association of Engineers - Technology Centre (VDI Technologiezentrum GmbH) – Germany

Service public de Wallonie, Direction générale opérationnelle Economie, Emploi et Recherche (DGo6) – Belgium

National University Research Council - Executive Agency for Higher Education & Research Funding (NURC/UEFISCSU) – Romania

Research Council of Norway (RCN) – Norway

The Ministry of Higher Education, Science and Technology (MHEST) – Slovenia

Basque Agency for the promotion of international Research, Development and Innovation, INNOBASQUE – Spain

Regional Ministry for Industry, Commerce and Innovation (CICI) of the Regional Government of Valencia – Spain

Invest Northern Ireland (Invest NI) – United Kingdom

Basque Government - Industry, Trade and Tourism Department, ITT – Spain

Associated Partners:

VDI/VDE-IT – Germany

Enterprise Ireland (IDA) – Ireland