ESPON

AMCER

ADVANCED MONITORING AND COORDINATION OF EU R&D POLICIES AT REGIONAL LEVEL

Targeted Analysis 2013/2/18

MONITORING APPROACH METHODOLOGY

Annex to (Draft) Final Report | Version 28/09/2012

EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

This report presents the interim results of a Targeted Analysis conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

Information on the ESPON Programme and projects can be found on www.espon.eu

The web site provides the possibility to download and examine the most recent documents produced by finalised and ongoing ESPON projects.

This basic report exists only in an electronic version.

List of authors

Project Coordinator:

INNOVA Europe sarl, Belgium

Partners:

Technopolis, France

Centro di Risonanze Magnetiche CERM, Italy

TASO Desarollos, Spain

Vaasan Yliopisto, Finland

Gottfried Wilhelm Leibniz Universität Hannover

University of Sheffield, UK

Fundaction Deusto-Deusto Fundazioa, Spain

Chambre de Commerce et d'Industrie de Paris (CCIP) ESIEE Paris, France

Universita della Svizzera Italiana, Switzerland

Contents

Introduction 5
Access to data and information on participation of the region 7
Methodological overview: matching and cleaning of regional information contained in EC contracts' databases 9
European funding and the regional R&D system 13
Input - Attractiveness 14
Output analysis 17
Employment 17
Patent analysis 17
Coherence and potential 18
Lessons and recommendations 19

ESPON AMCER
Monitoring approach methodology

1. Introduction

European Union Members States as well as regions are committed to support smart growth despite the unfavourable economic conditions. In the context of the 2007-2013 EU Cohesion Policy €86 billion were scheduled for public support in the following fields: transport, environment, energy, tourism, culture, education, health, RTD, innovation and entrepreneurship, information society. Besides, regional research and innovation actors receive funding from the Community Innovation Programme (CIP) and the 7th Framework Programme (FP7). While these are aimed at supporting excellence, mutual learning and EU-wide cooperation of researchers and enterprises, according to European Commission[1], regional policy should continue to focus on ensuring that all regions are capable of absorbing and putting to effective use innovation, so that its benefits spread throughout the EU, helping maximise the Union's knowledge-based potential.

Due to fragmentation of the funding sources (DG RTD, DG REGIO, DG ENTR, EACI…), EC cannot provide regions with a set of comprehensive and harmonized participation indicators.

European, national and regional research and innovation are increasingly intermingled. As such, the implementation of strategic governance tools is strongly dependent from monitoring tools. The need for global indicators is particularly expressed by European regions that are facing difficulties in having a clear view of the participation of the regional actors in EU programmes. This view would be useful for the development of their Regional innovation strategies.

The lack of reliable indicators that help in measuring funding received by regional research performers and that help in assessing the impact of regional, national and European programme on regional innovation and research system had led the regions to perform their own assessment by collecting information from local stakeholders. Results and outcomes are then difficult to compare among regions since no common rules or definitions have been previously defined. To give but an example, regions do not necessarily agree on the definition of a participation in the FP or of a participant in the FP.

In addition, the information available is often biased by **headquarter effect.** In official contracts' databases, participations are often located in the capital where are often localised the headquarters of the institutions (either public or private). This effect partially depends on the institutional structure of each country and on the patterns of research stakeholders (large research organisms, large companies...).

[1] Regional policy contributing to smart growth in Europe 2020-COM(2010) 553 final

Aim

AMCER is a pilot project that is aimed at studying the participation of nine regions in the European programmes in order to eventually develop a general assessment of regional participation considering the headquarter effect of contracts data of European Commission. It is built first on the development of a common and agreed methodology in order to obtain reliable and comparable indicators for the nine regions involved in the study.

The aim is to provide an overall comparison of the performance of the players with the EU RDI programmes. It does not correspond to a complete evaluation of the regions participation to the EU programmes themselves.

In particular, the approach is to produce overall scoreboards of performance to aid regions to build their investment strategies. These scoreboards or regional profiles should serve as a model for the regions to develop their own approach based on their administrative set-up, monitoring approaches, policy mechanisms etc.

The expectation is that possibly in the future the access to EU data on EU R&D programmes will be facilitated to regional players, notably in the context of the Horizon 2020 programme, taking into account the improved synergies between this programme and the CSF/ERDF and the need for the regions to develop their own regional smart specialisation strategies.

Therefore the proposed approach is based on the methodology outlined in the present document as well as in the nine AMCER regional profiles which can constitute a possible model and a source of inspiration for the regional authorities who wish to further develop their monitoring approach for RDI programmes and activities.

There is a need to involve further the regional stakeholders in the monitoring of the implementation of FPs in order in particular to allow compatibility with regional monitoring.

Finally the idea is that while they should not be considered as an exhaustive monitoring or an audit of the performance of the projects deployed within the EU RDI programmes, the regional profiles/scoreboards could constitute a sort of Strategic management Tool for policy and decision makers to facilitate assessment of regional RDI performances, monitoring, benchmarking and facilitate decision about allocation of resources.

It should be noted that the methodology that has been developed for the AMCER project is based on a pragmatic approach. It is not possible to design a systematic approach in a user guide that would be followed step by step by a new user.

The reasons why the project methodology cannot produce such a user guide are as follows:

- Sources are different for each programme and as a matter of fact, database structure changes from one programme to another,
- Data available at national or regional level are displayed in a format that is specific to each country or region (most often the format depends on the way the statistical services deal with their own statistics and on their own objectives).

The approach developed for the AMCER project is replicable but implies a deep knowledge in the structure of the European database as well as in the management tool of databases.

The process requires also the full access to the Contracts databases (FP and CIP programmes) of the European Commission services which is not easily given due to confidentiality reasons.

The guidelines are aimed, firstly, at describing the general process and the different steps and secondly, at pointing possibilities of improvement of regional monitoring from the European Commission side.

2 Access to data and information on participation of the region

Regions have different access to information regarding the participation of regional organisations located in their territory. The EU programmes on R&D do include structured and harmonised information about impact indicators.

Also the quality of the data collected by the EU about the performance of the EU RDI programmes is not sufficient to provide any useful, readily accessible conclusions.

The following table provides an overview of the availability of information for regions and their quality and reliability.

Table 1 Level of availability of information on the programmes for the regions

Programmes	Information availability for the regions
FP (Framework programme)	Information is accessible through a dedicated database (e-Corda)
CIP (Competitiveness and Innovation Programme)	No information is delivered to the regions. Participation information is managed by the EC. No existing common structured database as that of the FP.
ERDF (European Regional Development funds)	Participation information managed by Regional authorities in a structured database at national level. Information is easily accessible though a database analysis and the Annual Implementation Reports (AIR)

Quality and completeness of the information obtained differ from programme to programme:

1. FP7 database (through e-Corda) offers more reliable information than FP6 did and is a major improvement for the regions to perform their monitoring;
2. No information is provided to regions for the CIP sub-programmes;
3. Regarding ERDF, whereas regions are responsible for the contracts' database, the analysis carried out from this database is most often barely used by the regional services in charge of the monitoring of the EU programmes.

Besides "contracts" databases do not offer the same quality and quantity of information. FP7 database contains the highest level of information. In terms of geographical information, the FP7 provides information on the research department localisation giving useful information about the headquarter effect.

Table 2 Level of quality/reliability of information on the programmes for the regions

Programmes	Level of quality/reliability of information
FP (Framework programme)	e-Corda provides unequal quality of information on the localisation of the research performers (localisation often refers to the headquarters which are often settled in the capital)
CIP (Competitiveness and Innovation Programme)	Partially reliable (only headquarter information available)
ERDF (European Regional Development funds)	Information reliable

The following table provides an overview of the type of information contained in the contracts' databases.

Table 3 Type of information contained in contracts' databases

Programme	Project info (Title, theme, total cost, total EC contrib.)	Participant info (role, type, EC contrib.)	Headquarter Localisation information (Nuts code)	Research department localisation info (Nuts code)
FP6	Yes	Yes	Yes	
FP7	Yes	Yes	Yes	Yes
CIP-PSP-ICT	Yes	Yes	Yes	
CIP-IEE	Yes	Yes	Yes (postal code and cities only)	
ERDF	Yes	Yes	Yes	

3 Methodological overview: matching and cleaning of regional information contained in EC contracts' databases

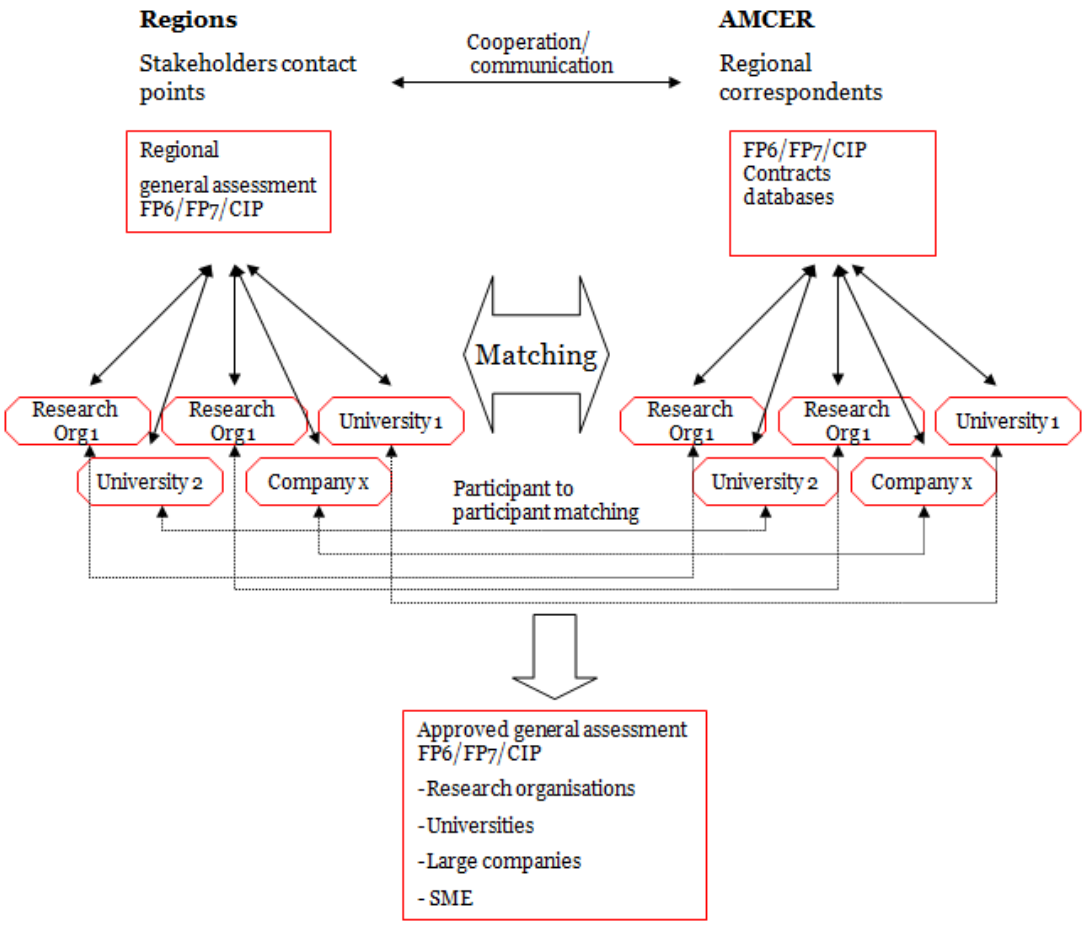
The matching between official information contained in the EC "contracts database" and information gathered at regional level represents the core of the methodology.

3.1 General principles

The level of regional involvement depends on the quality of the official data. Basically, the methodology needs two different sources: local (regional) data from ad-hoc monitoring and data from EC "contracts databases". The matching between the local and the central information sources enables the production of reliable and normalised indicators for each region.

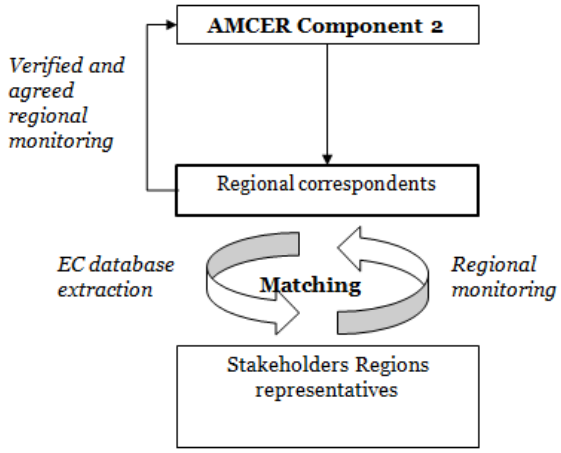
The following graph illustrates the matching process.

Exhibit 1 General overview of the interactions between local knowledge (regional actors) and the central information (AMCER team)



For the sake of the project, regional actors have been involved. These "AMCER regional correspondents" act as interface in the matching process between the team project and the regional stakeholders. The following exhibit shows the information flow between the different actors during the matching process.

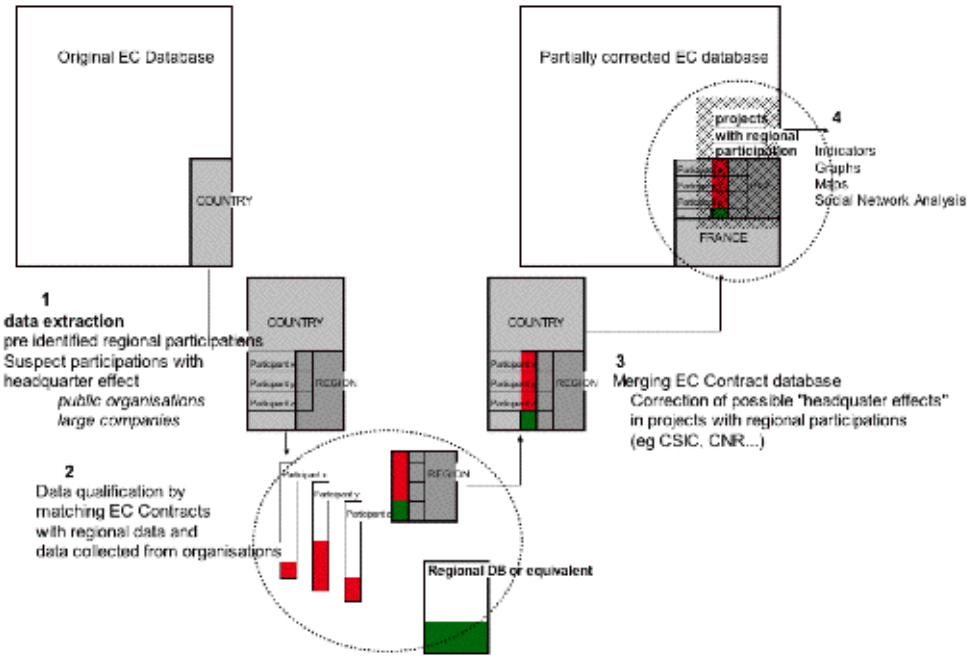
Exhibit 2 Flowchart of the interaction between AMCER the regional correspondents and Regions



The matching process is linked to the data sources. FP6 and FP7 databases do not offer the same quality and reliability of information, the consequence two different matching processes. The following graph shows the matching process for FP6. A strong link with regional representatives is more than necessary in order to check each regional participation from the extraction of a national database (step 1 and 2).

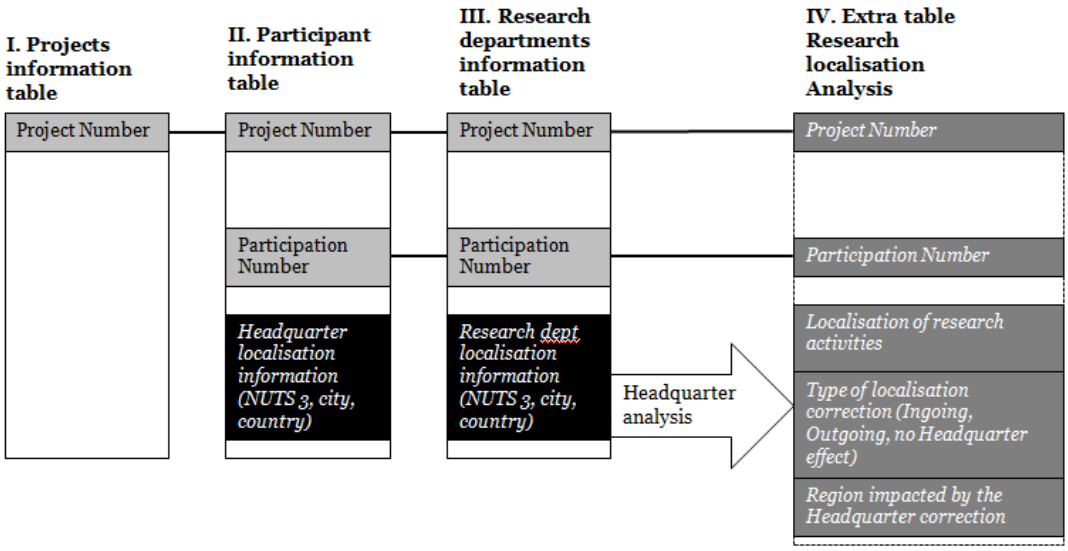
The mandatory condition is the availability regional analysis. The matching process is appropriate to programmes without research department localisation such as FP6 and CIP.

Exhibit 3 Technical overview of the data matching for the FP6 and CIP programmes



The process for programme containing localisation information of research department (FP7) is different and request less contribution from the regional side. The technical process is described by the following graph. It shows links between the 3 main tables of the FP7 database (I, II, III) and the creation of an extra table in ms Access in order to analyse the headquarter effect (IV). Without changing any information of the original database (this is a rule), the extra table contains the new geographical information. The new geographical information are decided according a set of rules described in the following section. All the indicators regarding participation of the Regions and budget breakdown are calculated from this "extra" table.

Exhibit 4 Technical overview of the Headquarter analysis for the FP7 programme



3.2 Geographical information change process

A methodology should be based on common agreed basic rules. These rules must the most logical as possible in order to avoid any special cases. In the next section is defined the process of validation and change of geographical information in EC programmes in order to avoid the "headquarter" effect.

Then the following conditions have been agreed:

1. Participation can be considered as regional if the headquarter localisation and the research department (or equivalent) are settled in the same region
2. If headquarter and research department are not settled in the same region, the research department (or equivalent) prevails. In practice, that means that:
   i. if the research department is settled in a region, the participation should be considered as regional and added to general assessment for this region;
   ii. if the headquarter is settled in a region but the research department is in another, the participation cannot be considered as regional and should be withdraw from the general assessment of this region.
3. If it happens that one participation took place in different regions (this case happens especially for public research organisations), the participation is considered as regional if the largest part of the budget is spent on the regional territory.

A basic assumption is to always trust the contractual information entered by beneficiaries and validated by the EC. The crucial role of local knowledge (held by regional authorities) intervenes especially when the information is missing.

The matching process is linked to the data sources. For instance, FP6 and FP7 do not offer the same quality and reliability of information. As a matter of fact, the matching processes differ significantly from one to the other.

The following table shows the matching process for the data according to the EC programmes. A strong link with regional representatives is an extremely valuable support for checking regional participations identified from the extraction of a national database. The necessary conditions are the availability of regional monitoring and the level of "local" knowledge on regional actors and participants.

Table 4 Matching process of data according to the EC programmes

Database observation	Role of the region	Result (procedure)
Headquarter localisation **and** the research department (or equivalent) are settled in the same region This case appears for FP7 database only	Validation and correction (if necessary)	Participation with no "headquarters effect". This type of participation represents between 50% and 70% of the participations (according to the regions/countries)
Headquarter and research department **are not settled** in the same region **and** research department is settled in the region that is studied This case appears for FP7 database only	Validation and correction (if necessary)	Ingoing participation for the region and outgoing participation for the region are impacted by the change The participation is added to the list of participation of the region that is studied and withdrawn from the list of participations of the region impacted by the change
Headquarter and research department **are not settled** in the same region **and** headquarter is settled in the region that is studied This case appears for FP7 database only	Validation and correction (if necessary)	Outgoing participation for the region that is studied and ingoing participation for the region are impacted by the change The participation is withdrawn from the list of participation of the region that is studied and added to the list of participations of the region impacted by the change
Headquarter geographical information is indicated but not the research department's geographical information. This case happens for FP6, FP7 and CIP	Investigation in order to find the geographical information of the research department. Participation of region is particularly important (provided that a good knowledge of local context and regional research organisations has been built over time)	Participation with no headquarter effect added to the list of regional participations OR Outgoing participation if research department is not settled in the same region as that of the headquarter.
Research department's geographical information is not indicated AND Headquarter is localised out of the region that is studied. This case happens for FP6, FP7 and CIP	Focused investigation in order to detect research departments localised in the region. This case happens for large public research organisations and needs the contribution of public research organisations themselves in close cooperation with the region. This is often due to participations spread into several laboratories.	Ingoing participation and outgoing participation for the region that is studied are impacted by the change. The participation is added to the list of participation of the region that is studied and withdrawn from the list of participations of the region impacted by the change

4 European funding and the regional R&D system

On the basis of the data produced by the previous components, this section assesses the influence and coherence between European projects and the regional R&D systems, in terms of Inputs, Networking and Outputs. This implies comparing the structure of the projects, in terms of fields' specialization and network structure on the one side, and the main characteristics of the regional economic and R&D system on the other side. The analysis does not aim to assess the impact of EU programmes nor to provide an evaluation of the impact of the regional RDI policies, as a similar task would require longitudinal data connecting investments to output.

Rather, this section aims at analysing aspects related to:

- Input - Attractiveness of FP 7 funds and research specialization
- Network: the space of collaboration created by the European FP 7 projects at regional level and the connections with other European areas
- Output: the regional employment profile, focusing on the relevance of high tech and knowledge intensive sectors
- Output: patenting activity
- Coherence and potential: the degree of coherence and the possible synergies between EU funding and the regional R&D system depicted by employment and patenting figures

4.1 Input - Attractiveness

This section analyses the capability of the actors located in the region to attract funding of the Seventh Framework Program. Indicators have been designed to assess the relative attractiveness when compared to country and European standards, in terms of number of projects and funds per inhabitant, and the leadership capability.

It is analysed the way funds are distributed across provinces, between public and private organizations, and among different types of actors:

- Higher or secondary education (HES)
- Private for profit (excluding education) (PRC)
- Public body (excluding research and education) (PUB)
- Research organisations (REC)
- Other (OTH)

Special attention is paid to the participation of commercial and non-profit Small and medium enterprises (SME), again, considering the spatial distribution in the region and the comparison with national standards.

Of particular interest is the attractiveness by thematic sector. Absolute attractiveness is strongly affected by the amount of funding that is assigned at the European level to each theme of the FP 7. Namely, most resources were allocated to areas like “Information, communication technology”, “Health”, “Nanosciences, Nanotechnologies, Materials and new Production Technologies” and “Food, Agriculture, and Biotechnology”. Thus, considering the absolute attractiveness would provide little information about the regional research specificities. The attractiveness relative to the European and Country average have been computed instead, in order to identify areas of specialization and higher research attractiveness.

4.2 Network

Knowledge flows and interactions are pivotal for the R&D system productivity and success, for the circulation of ideas and the innovation (Luukkonen, 2000). The pattern of collaboration generated by FP 7 have been subjected to several studies, because of their relevance and impact on fundamental research, as well as

exploitation (Breschi et al.2004[2]; Cassi et al.,2008[3]; Scherngell and Barber, 2008 [4]; Schluga and Barber, 2006[5]). One of the FP 7 core goals is to stimulate European wide collaboration; at the same time, the benefits of networking should not be confined to the networking subject, but rather carried in the regional context as well.

Thus, in the frame of this study, the network of collaboration generated by the FP 7 programs is employed as a proxy, in order to:

i) assess the degree of cohesiveness in the regional R&D system,
ii) the interconnection between different types of actors,
iii) to identify the most central and well-connected organizations and
iv) identify important actors not sufficiently integrated in the region.

First, the spatial distribution of collaborating subjects is depicted, in term of the share of collaborators in the region, in the country and in other European countries; also identifying the most important region and countries of collaboration.

Second, the propensity of organizations to collaborate with different types of organizations in the regional context is measured. These mixed relationships are particularly important in high tech sectors, presumably because there is a need to reach out a wider knowledge base, developing heterogeneous collaboration networks (Luukkonen, 2003). Their relevance represents a proxy of openness and inter sectorial connectedness. Two indicators are used, i) the ration between the collaboration between different types of actors and the total number of regional collaborations, and ii) the share of collaboration that the public organizations establish with private ones.

Third, the network of collaboration is visually represented with a graph pointing out the most important actors, moreover synthetic indexes represent the network's main features (box 1).

Fourth, the main actors are identified by making use of indicators of network centrality (box 1).

Finally, a specific analysis of the collaborations of the main organizations in the region is developed, in order to evaluate to what extent they are embedded in the regional context, and whether any leading organizations is weakly embedded.

---

[2] Breschi, S. & Cusmano, L. (2004). Unveiling the texture of a European Research Area: Emergence of oligarchic networks under EU Framework Programmes. International Journal of Technology Management, 27(8), 747-772.

[3] Lorenzo Cassi & Nicoletta Corrocher & Franco Malerba & Nicholas Vonortas, 2008. "Research Networks As Infrastructure For Knowledge Diffusion In European Regions,"Economics of Innovation and New Technology, Taylor and Francis Journals, vol. 17(7-8), pages 663-676.

[4] Thomas Scherngell & Michael J. Barber, 2009. "Spatial interaction modelling of cross-region R&D collaborations: empirical evidence from the 5th EU framework programme,"Papers in Regional Science, Wiley Blackwell, vol. 88(3), pages 531-546, 08.

[5] Thomas Roediger-Schluga and Michael J. Barber, *The structure of R&D collaboration networks in the European Framework Programmes*; NEMO working paper

BOX 1 –Indicators of network centrality and network structural properties: description

Hub centrality[6] of a node is the extent to which its out-links are to nodes that have many in-links. Individuals or organizations that act as hubs are sending information to a wide range of others each of whom has many others reporting to them. Technically, an agent is hub-central if its out-links are to agents that have many other agents sending links to them. The scientific name of this measure is hub centrality and it is calculated on agent by agent matrices.

Betweenness centrality of node v in a network is defined as: across all node pairs that have a shortest path containing v, the percentage that pass through v. Individuals or organizations that are potentially influential are positioned to broker connections between groups and to bring to bear the influence of one group on another or serve as a gatekeeper between groups. This agent occurs on many of the shortest paths between other agents. The scientific name of this measure is betweenness centrality and it is calculated on agent by agent matrices.

Total degree centrality of a node is the normalized sum of its row and column degrees. Individuals or organizations who are "in the know" are those who are linked to many others and so, by virtue of their position have access to the ideas, thoughts, beliefs of many others. Individuals who are "in the know" are identified by degree centrality in the relevant social network. Those who are ranked high on this metrics have more connections to others in the same network. The scientific name of this measure is total degree centrality and it is calculated on the agent by agent matrices.

The density of a graph (a network) is defined as the ratio of the number of edges present in the graph to the number of edges that could be present.

Paths are useful to measure distance, i.e. how far apart vertices are in a graph. The shortest path between two vertices is referred to as a geodesic. The average geodesic in a connected graph is the characteristic path length ℓ. The maximum geodesic from vertex i to any other vertex is its eccentricity. The maximum eccentricity in a graph is its diameter.

Krackhardt (1994[7]) provided a definition of a pure, "ideal typical" hierarchy as an "out-tree" graph. An out-tree graph is a directed graph in which all points are connected, and all but one node (the "boss") has an in-degree of one. This means that all actors in the graph (except the ultimate "boss") have a single superior node. Krackhardt develops index numbers to assess the extent to which a hierarchy deviates from the pure ideal type on four dimensions. We consider two of them. i) Connectedness: To be a pure out-tree, a graph must be connected into a single component -- all actors are embedded in the same structure. We can measure the extent to which this is not true by looking at the ratio of the number of pairs in the directed graph that are reachable relative to the number of ordered pairs. That is, what proportion of actors cannot be reached by other actors? Where a graph has multiple components -- multiple un-connected sub-populations -- the proportion not reachable can be high. If all the actors are connected in the same component, if there is a "unitary" structure, the graph is more hierarchical. ii) Efficiency: To be a

[6] Network analysis and definitions of the measures are taken from ORA software.

[7] Krackhardt, D., 1994. Graph theoretical dimensions of informal organizations. In: Carley, K., Prietula, M. (Eds.), Computational Organizational Theory. Lawrence Erlbaum Associates, Hillsdale, NJ, pp. 89–111.

pure out-tree each node must have an in-degree of one. That is, each actor (except the ultimate boss) has a single boss. This aspect of the idea type is termed "efficiency" because structures with multiple bosses have un-necessary redundant communication of orders from superiors to subordinates. The amount of deviation from this aspect of the pure out-tree can be measured by counting the difference between the actual number of links (minus 1, since the ultimate boss has no boss) and the maximum possible number of links. The bigger the difference, the greater the inefficiency. This dimension then measures the extent to which actors have a "single boss." [8]

A recent report about the analysis of networks in European Framework Programmes[9] analysed the structure of European networks of collaboration in the FPs, from FP1 to FP6, to understand the contribution of European policies in transforming the fabric of research within the ERA, as well as identifying a possible backbone for the ERA.

4.3 Output analysis

4.3.1 Employment

This section aims at describing the importance of employment sectors classified according to three levels of technology and knowledge intensity (OECD classification). The overall share of employed is considered, as well as the comparison with the country and the European average, and the variation in the number of employees between 2004 and 2009. Accordingly, different types of region can be identified, with high or low specialization in High tech sectors, which can be decreasing, stable or increasing. Moreover, the most promising high and medium tech sectors are identified, i.e. those that are growing and in which the region shows a high specialization when compared to country and Europe[10].

4.3.2 Patent analysis

The number of patents in often small for short periods and small regions, and often few actors concentrate most of the patents. Nevertheless, patents represent an important phase of research exploitation, and may provide useful information as to the R&D profile of the Region.

Patents applications from 2002 to 2007 were extracted from the Patstat database of the European patents with applicants located within the 9 regions under study, and divided in the 35 WIPO technological fields and 5 technological domains. The main applicants have been identified in each region.

[8] Source : Hanneman, Robert A. and Mark Riddle. 2005. Introduction to social network methods. Riverside, CA: University of California, Riverside

[9] Source: Heller-Shuh B, Barber M, Henirques L., Paeir M., Pontikakis D., Scherngell T., Veltri G., Weber M. 2011. Analysis of networks in European Framework Programmes (1984-2006). Joint Research Centre-Institute for Prospective Technological Studies

[10] Expressed by the ration : (% regional employees in sector x) / (% national (European) employees sector x)

For each technological field and domain the overall productivity was computed, as well as the relative weight in the region and the level of specialization compared to the country[11].

4.4 Coherence and potential

One dedicated section of the regional reports describes the main findings and the results of a cross-sectional analysis aimed at identifying strengths and weaknesses of the regional R&D system, as well as the most promising sectors.

An efficient regional R&D system should display a coherent research profile, so that sectors attractive of research funds should also be the most dynamic in terms of employment and patenting. In reality, this is not always the case, and the sectors which are strong in producing research may be underdeveloped in terms of employment, or vice versa; this is not necessarily a negative thing, as research may require and benefit from national and international collaboration.

Nevertheless, a sector that is strongly developed at different stages in the chain from knowledge generation to knowledge exploitation indeed presents favouring conditions for productive collaborations. Thus, we looked through a cross thematic table (annex 6) at sectors in which a region displays high specialization, across all the considered domains, as such sectors display the strongest potential.

[11] Definition of the indicators in the reports

5 Lessons and recommendations

1. At EC level: improvement of the information provided by contracts' databases

FP7 database appears as the most complete and reliable database. DG RTD has significantly improved the quality and the reliability of the data. The FP7 database provides useful information on the localisation of research departments.

According to the experience accumulated by AMCER, the only recommendation for the FP7 database would be to always request (make mandatory) the information about the localisation of the research department.

CIP sub-programmes' databases should adopt the same structure as that of the FP7.

2. At regional level: a better coordination is needed between Regional units in charge of the follow-up of the ERDF programme and the services in charge of the monitoring of the FP/CIP

Improvement of the linkage of the staffs in charge of the ERDF participation analysis and FP/CIP participation monitoring is needed in order to develop a common frame for monitoring and for developing indicators.

3. Among regions/at national or European level: an agreement is needed on a common set of definitions and taxonomy

A set of common definitions among the programme should be agreed upon. For instance, a common approach is needed for counting the regional participations, in particular for those participations spread into several laboratories). A common set of scientific themes is also needed.

4. Among regions/at national or European level: an agreement is needed on a common set of indicators for monitoring R&D participation

A common set of indicators for the different programmes should be designed. This has to be done for helping the regions in the production of participants' typologies and in the identification of scientific or strategic domains. These indicators should be useful to feed regional policies.

www.espon.eu

The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.

ISBN