

FULL REPORT

Synergies between FP7, the CIP and the Cohesion Policy Funds

Final report of the Expert Group

EUROPEAN COMMISSION

Directorate-General for Research and Innovation
Directorate C – Research and Innovation
Unit C.5 – Regional Dimension of Innovation

Contact: Ciaran DEARLE

European Commission
Office SDME 09/75
B-1049 Brussels

Tel. (32-2) 29-92985
E-mail: ciaran.dearle@ec.europa.eu

Synergies between FP7, the CIP and the Cohesion Policy Funds

Final report of the Expert group **EXECUTIVE SUMMARY**

Frans van Vught (Chair)
Manfred Horvat (Rapporteur)
Helena Acheson
Dan Andree
Anton Anton
Guy Clausse
Giovanni Colombo
Erzebet Dobos
Michel Gaillard
Jana Kolar
Eleni Marianou
Helena L. Nilsson
Peter Oakley
Tea Petrin
Carlo Rizzuto
Olle Stenberg

Europe Direct is a service to help you find answers
to your questions about the European Union

Freephone number(*):
00 800 6 7 8 9 10 11

(*Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed

LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information.

The views expressed in this publication are the sole responsibility of the authors and do not necessarily reflect the views of the European Commission.

More information on the European Union is available on the Internet (<http://europa.eu>).

Cataloguing data can be found at the end of this publication.

Luxembourg: Publications Office of the European Union, 2011

ISBN 978-92-79-20892-8
doi 10.2777/72795

© European Union, 2011
Reproduction is authorised provided the source is acknowledged.

The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the European Commission. Neither the European Commission nor any person acting on its behalf may be held responsible for the use which may be made of the information contained therein.

Printed in Luxembourg

Table of contents

	page
Executive Summary	1
1. Introduction	7
1.1 Terms of Reference of the Synergies Expert Group (SEG)	7
1.2 Working method	7
1.3 The approach taken	8
2. The current policy context	10
3. The new policy context	12
4. The main issues	13
5. Current programming period	14
5.1 Introduction	14
5.2 The 7th Framework Programme (FP7)	15
5.3 The Competitiveness and Innovation Framework Programme (CIP)	16
5.4 Education and training	18
5.5 The Structural Funds (SF)	19
5.6 Practical instruments	20
5.7 Communication, coordination and cooperation	21
5.8 Simplification	22
6. Next programming period	23
6.1 Introduction	23
6.2 A conceptual basis for future synergies	23
6.3 Practical synergies	25
6.4 Common Strategic Framework for Research and Innovation	28
6.5 Common Strategic Framework for Cohesion	31
6.6 The future of Regions of Knowledge (RoK)	37
6.7 The future of Research Potential (REGPOT)	38
7. Main recommendations	39
7.1 Current programming period	39
7.2 Next programming period	41
8. Acknowledgements	45

Annexes

I.	Members of the Synergies Expert Group (SEG)	47
II.	Terms of Reference	48
III.	Summary of earlier analyses	53
IV.	List of acronyms and abbreviations	58
V.	Glossary	60

EXECUTIVE SUMMARY

The issue of synergies between the Framework Programme (FP), the Competitiveness and Innovation Framework Programme (CIP), and the Structural Funds (SF) has been on the agenda at European level for several years and has been addressed and analysed by different bodies. The present exercise included also the European Institute of Innovation and Technology (EIT) and parts of the Life-Long Learning Programme (LLP) in its deliberations and analyses.

The Synergies Expert Group (SEG) started its work in October 2010 with the task to produce recommendations

- for the development of 'synergies in practice' for the current programming period,
- concerning enhanced "synergies of policies and programmes" for R&D, innovation and cohesion for the next programming period, and
- in particular for the future of the two regional actions in FP7, Regions of Knowledge (RoK) and the Research Potential (REGPOT).

The SEG defined 'synergies' as the alignment of and cooperation between policy frameworks, programmes and actions allowing more and better attainment of their objectives.

The general policy context is defined by the Europe 2020 strategy and the Innovation Union flagship initiative and its commitments. Europe 2020 defines the key role of research, technological development, and demonstration (RTD) as well as of innovation as among the most important engines for growth. Europe 2020 puts forward three mutually reinforcing priorities: smart, sustainable and inclusive growth. The focus of the Innovation Union flagship initiative is on knowledge production and innovation. The EU Budget Review calls for the development of common strategic frameworks encompassing the relevant programmes.

The concept of 'innovation' and the 'innovation systems approach' formed the bases for both the SEG's analyses of the programmes and actions and the formulation of recommendations. The SEG paid specific attention to the importance of the 'location-based' dimension of innovation and to the fact that knowledge-spillovers decrease with distance. European research and innovation policies support transnational activities. For regional policies the concept of 'local-global connectedness' is important.

The main issues to be addressed were identified by the SEG as follows:

- The fragmentation of innovation policies at EU level;
- The sub-optimal coordination of research and innovation as well as cohesion policies at European, national and regional level, both within and between these levels;
- A lack of common strategies in accordance with the orientations of Europe 2020;
- A lack of a coherent and interacting governance structure;
- Weak complementarities and compatibilities as well as interoperability of policies and programmes, particularly regarding the regional dimension in research and innovation policy and the research and innovation dimension in regional policy;
- A lack of instruments aimed at supporting the pooling of European and national funds;
- Poor communication, coordination and cooperation between actors and stakeholders at all levels.

In the following sections, the main conclusions and recommendations are summarised.

For the current programming period, the SEG recommends to use the remaining time for exploring and testing the possibilities for enhancing the interoperability of the programmes and instruments when defining and implementing the FP7 work programmes. This means especially performing pilot test actions for communication, coordination and cooperation between the policies and programmes; at and between EU, national and regional levels. In addition, the mutual adaptation of evaluation and selection procedures and trials for the application of international peer review in

Structural Funds should be tested where appropriate, and where FP7 can act as an example of best practice.

When boosting the innovation dimension in European research activities, the limitations imposed by the EU Competition Rules and WTO Rules have to be clarified on the one side, and, on the other side, the tightrope walk between cooperation and competition in European project partnerships when coming closer to the market has to be tested.

Through the enhanced focus on innovation, the programmes are moving closer to the market. As a consequence, IPR protection has to be further developed paying special attention to the requirements of universities and research.

The communication between the advisory, implementation, monitoring as well as information and assistance bodies for the different programmes should be improved in order to reduce the current complexity of support structures.

Managing Authorities of the Structural Funds should be informed about positively evaluated FP7 proposals (especially REGPOT actions, ERC grants, and Research Infrastructures) from their region that could not be retained for funding because of budgetary constraints. Offering them these positively evaluated proposals with such a 'Seal of Excellence' should be tested. In case such projects are interesting for its specific regional innovation strategy, the Managing Authority might consider providing financial support to them through the Structural Funds. In addition, national authorities responsible for FP7 should inform regional authorities about organisations located in their territorial domains that were successful in FP, CIP, EIT and ESFRI.

The EIT KICs are still in an early stage and, so far, they cannot be judged according to real achievements. The SEG recommends monitoring the development of the KICs and their successes and problems in making the knowledge triangle a reality and disseminating these experiences widely in Europe. The potential catalytic role of KICs in translating research results of EU and other research activities into prototypes and new products and services should be further developed. In addition, the SEG suggests that KICs could be used as test beds for new approaches fostering innovation.

The support for innovation should be enhanced by improving the access to finance for innovative SMEs through the RSFF and by promoting the use of the RSFF for public research (where applicable) and also for technology transfer initiatives.

The potential of 'new financial instruments' and a wider use of the European Investment Bank (EIB) should be explored for the specific funding of innovation activities and development of research infrastructures. The possibilities of debt-based funding for dissemination and exploitation activities through EIB/EIF should be tested.

The linkages of CIP with other programmes should be improved and institutionalised. Lessons should be learned from the examples of synergies between CIP and other programmes in the area of ICT and the possibilities and conditions for extending this approach to other themes in the future should be explored and defined.

Also, Marie Curie fellowships should be used for the transfer of technologies through mobility between science and industry for further development of research results towards marketable products and services – stimulating technology transfer through people.

The Structural Funds should be better exploited for innovative public procurement and demonstrations projects, and, thus, for better support of the 'smart growth' objective.

In order to promote greater synergies between education and research/innovation programmes, the Life-long Learning Programme as well as the European Social Fund (ESF) should become more innovation-oriented and should support more strongly skills for innovation, entrepreneurship, cooperation between universities and economic actors as well as multidisciplinary education conducive to innovation.

The SEG welcomes the efforts, previous achievements and ambitious future plans for simplification of FP7 rules and procedures and the next programming period for research and innovation. These activities should act as a model for substantial simplification initiatives also in the area of Structural Funds, where the fragmentation of regional approaches could be overcome by further developing the reference to specific “smart specialisation” approaches looking at complementarities across Europe.

In the **next programming period**, the Common Strategic Framework for Research and Innovation (CSFRI) will promote ‘excellence’ and the part of Common Strategic Framework for Cohesion Policy (CSFCP) related to research and technological development, innovation and entrepreneurship will focus on ‘capacity building’.

‘Smart specialisation’ has to be developed and complementarity has to be ensured with Europe 2020 and – even more – with the Innovation Union flagship initiative. This has to be supported by both CSFRI and the CSFCP that should be complementary to each other in the areas of RTDI and education and training.

Excellence must become a general orienting principle for all future schemes related to research and innovation, not only for the CSFRI but also for the respective parts of the CSFCP where, however, regional relevance also will play a major role.

Making a reality of the knowledge triangle between education, research and innovation will be a top priority for both frameworks with the Triple Helix of government authorities, industry and higher education institutions working together to provide favourable frameworks and eco-systems on the basis of common RTDI strategies at national and regional level.

CSFRI will work at EU level and will be oriented towards promoting excellence, addressing grand societal challenges, and supporting competitiveness, based on competitive project selection procedures applying international peer review.

Extended CIP functions should be offered across the CSFRI where appropriate. Activities directed towards enhancing the innovation and entrepreneurial culture in Europe should be strengthened.

The SEG recommends introducing a Small Business and Innovation Research Scheme (“SBIR” Programme) – possibly in the framework of future CIP functions – with funds earmarked for research and innovation in line with the objective to increase commercialisation of new knowledge and technologies. A certain percentage of research and innovation budgets at EU level and EU Member States level should be allocated only to innovative SMEs. The SEG identified two possible options for the implementation of such a scheme:

- the scheme is organised at EU level and implemented by the European Commission;
- the scheme is organised by the EU Member States and Associated Countries and the Commission provides co-funding for such national or regional schemes.

The possibilities for the EIT as a test bed for new approaches towards exploitation of research results and innovation should be utilised. Optimal communication, coordination and cooperation of the EIT with other EU and Member State programmes and initiatives have to be ensured.

The SEG supports the development of European Research Infrastructures as key support structures for the European Research Area. For major Research Infrastructures at EU level the general policy will be developed and support will be provided for feasibility studies and the networking between and the access to them. The CSFRI will also contribute to their operational costs. At regional level, CSFCP (and Member States and regions) will support or contribute to the construction costs of Research Infrastructures and of Regional Partner Facilities, while fully respecting the objectives of cohesion policy.

The SEG advises a seamless approach towards the two frameworks: e.g. positive evaluation of projects above threshold in the CSFRI – ‘Seal of Excellence’ – should be accepted as quality assurance

for funding from the Cohesion Framework, taking into account the priorities of the regional smart specialisation strategies.

The CSFCP will work at regional level; the research and innovation related parts will complement what is done at EU level and will be oriented towards:

- Capacity building at regional level and structuring the RTDI area by providing 'staircases to excellence';
- Close cooperation and interaction between public authorities, higher education and research, and industry (Triple Helix) in the planning and implementation of common RTDI strategies at national and regional level;
- Providing user-friendly innovation eco-systems for SMEs and larger companies, universities, and research organisations and their cooperative structures;
- Supporting the development of European Research Infrastructures and regional Partner Facilities.

For the CSFCP, the SEG emphasises the need that the future national/regional Operational Programmes related to RTDI, especially in convergence regions, should have a clear orientation on:

- Promoting local-global connectedness;
- Enhancing cooperation between academia and industry focussed on the support of clusters;
- Improving and developing capabilities and skills for research, innovation and entrepreneurship as well as giving high priority to the advancement of vocational training,
- Promoting the modernisation of universities and research and technology organisations, including professionalisation of human resource development for research, upgrading and renewing advanced research equipment;
- Including Research Infrastructures and Regional Partner Facilities in the regional development strategies.

Interoperability and compatibility of the two future policy frameworks and a functioning multi-level governance system are crucial preconditions for success.

Interoperability has to start with aligning the National Reform Programmes and the Development and Investment Partnership Contracts of the Structural Funds with the Europe 2020 strategies and the Innovation Union flagship initiative in line with the smart specialisation approach.

The SEG suggests improving the communication and interaction, coordination and cooperation between different committees and advisory bodies by arranging meetings between key committees (such as ERAC and COCOF).

In order to establish a competition aspect in the CSFCP, the SEG suggests considering a 'performance reserve': a certain small percentage should not be allocated and should be used for offering incentives for special achievements of Member States presenting examples of best practice in accordance with the Europe 2020 and Innovation Union objectives. Such a scheme could be supported by countries on a voluntary basis.

The SEG recommends allowing co-funding of activities from funds stemming from the CSFRI and the CSFCP as well as from other EU funding sources in different modalities covering the whole project phase or contributing to different project phases in a complementary way while avoiding double funding.

The SEG recognises the needs of the users of different programmes and recommends reducing the complexity of the programme portfolio by reinforced information and assistance. Optimal access to programmes should be ensured by providing common entry points, coherent application procedures and/or well-coordinated and cooperating contact points for information and assistance.

The SEG sees a need to introduce international peer review wherever possible and appropriate including in the Cohesion Framework, taking account and learning from the long-term experiences of DG RTD; this holds for the existing ex-ante assessments of regional policies; the European dimension

should play an important role also at the regional level. Compatible or common evaluation criteria and processes should be applied.

Structural Funds should be used for the enhancement of KIC co-location centres especially in countries not yet fully participating in the KICs. The EIT and the KICs should continue offering platforms for experimenting and testing novel approaches for supporting innovation.

A unified EU technology licensing process should be launched in order to enhance the commercialisation of RTD results from universities, non-profit organisations and SMEs across EU Member States.

Pre-commercial public procurement and procurement should be further developed and simplified.

The SEG recommends utilising the possibility of greater transnational cooperation and cross-border investment in the course of implementing the Cohesion Framework e.g. for strengthening global value chains, developing networks within macro-regions and accessing new markets or key technologies.

The SEG welcomes the Smart Specialisation Platform (S3 Platform) that will support the development of smart specialisation strategies.

The SEG is also in favour of allowing the use of Cohesion Framework funding from one region in other Member States (regions) to develop, in those regions, specific industrial and technology transfer capabilities from which multiple regions can benefit, providing that it will also lead to the development of research excellence and innovation capacity in the regions contributing the structural funds. In this context, the potential of new concepts of macro-regional initiatives (e.g. Baltic Sea, Danube) should be explored facilitating the use of article 37.6.b of the regulation for the ERDF, the ESF and the Cohesion Fund.

Regarding the future of the **Regions of Knowledge (RoK)** and the **Research Potential (REGPOT)** schemes the SEG suggests streamlining the two strategic frameworks and concentrating schemes with a capacity building character in the CSFCP.

As a consequence, the SEG broadly agrees to integrating the **Regions of Knowledge (RoK)** scheme in the Cohesion Framework and anchoring it in the Territorial Cooperation part. Especially clusters that are focusing on strengthening and developing research and innovation excellence in the regions should be supported.

The streamlining of the European cluster schemes should be high on the agenda when shaping the CSFCP ensuring appropriate coordination among existing EU cluster programmes. The SEG advises that consideration be given to developing a single cluster scheme or – alternatively – go for an approach where the Commission would complement national activities, e.g. through co-financing and assuring effective coordination between CIP, FP and SF programmes with an explicit cluster focus, and to consider widening the focus of RoK to the networking of clusters.

The SEG sees it of crucial importance that the full integration of the RoK scheme in the Operational Programmes is ensured considering the smart specialisation strategy both in and beyond clusters.

The budget of RoK for the next programming period should be defined on the basis of the result of the RoK evaluation and an ex-ante impact assessment.

Following the above line of argument, the SEG recommends including also the **Research Potential (REGPOT)** scheme as an inclusive capacity building scheme in the CSFCP. However, the SEG advises to ensure a centralised management, based on a voluntary participation of Member States or regions and a virtual common pot, keeping the aspect of European wide competition as well as the application of international peer review. In doing so the expertise and experience of DG Research and Innovation in the future scheme should be utilised in appropriate ways – especially with regard to project

evaluation based on international peer review. In the SEG's view, the evaluation could be outsourced to the Research Executive Agency.

Based on FP7 experiences, the SEG supports foreseeing a substantially higher budget for REGPOT in order to be able to satisfy the strong demand for this scheme. The 100% funding (as in FP) should also be maintained after integration in the CSFCP. Finally, other additional funding alternatives should be explored.

1 Introduction

1.1 Terms of Reference

The Synergies Expert Group (SEG)¹ started its work in October 2010 with a view to delivering its final report by May 2011.

The Terms of Reference² introduce the background to the appointment of the SEG and describe the framework for the development of synergies between FP7, the CIP and the Structural Funds. The mandate and scope of the SEG as defined in the Terms of Reference are:

Current programming period

- *State of the art in operation of "synergies in practice": The group should identify tools currently in place that allow complementarities between research and innovation related parts of the programmes mentioned. It should also draw on the content and conclusions of a currently finalising Commission Staff Working Document on the progress made at national and regional level in co-ordinated use of the Community's instruments in support of research and innovation and on examples of good practice at national and regional level.*
- *Recommendations for future development of "synergies in practice": Such recommendations would be addressed to the Member States and the Commission services dealing with FP7, CIP and the Structural Funds and should be developed on the basis of both analysis and the actual experience of research and innovation actors in relation to synergies. They should take account of best practice as identified in Commission documents but also problems encountered in the implementation of synergies.*

Next programming period

- *Recommendations concerning enhanced "synergies of policies & programmes": This concerns the future design and implementation of the three policies (R&D, innovation & cohesion), the funding instruments that support them and the interface with their related policy support structures (such as the ERAC in the case of R&D policy, the European Cluster Policy Group, Europe INNOVA & PRO INNO Europe in the case of innovation policy and Regions for Economic Change in the case of cohesion policy). The scope for the modification of existing structures and relationships and the emergence of new programmes should also be considered.*
- *Specific recommendations concerning Regions of Knowledge (RoK) & Research Potential (RP): Although the need to develop synergies applies to all aspects of FP7, the two regional actions, RoK & RP, have a particular important role to play in highlighting the scope for a regional dimension in the Research Framework Programme. Therefore, the expert group should specifically address the future of these two actions. In that regard, account should be taken of the results of the impact study of Regions of Knowledge (REGIONS-2010-4) and the Granada conference (REGIONS-2010-2 & REGPOT-2010-4) entitled "Week of Innovative Regions in Europe" (WIRE I).*

Although not initially foreseen in the Terms of Reference, the work of the SEG was extended to encompass the 'knowledge triangle' in relation to education and training and Life Long Learning.

1.2 Working method

The SEG held six meetings between October 2010 and April 2011³:

¹ List of SEG members: Annex I

² For the detailed Terms of Reference of the SEG see Annex II

- 24-25 October 2010
- 17 November 2010
- 20 December 2010
- 7 February 2011
- 15 March 2011
- 14 April 2011

During the meetings, the relevant policy frameworks were presented as well as the activities of DG REGIO, DG EAC, the EIT and DG ENTR. The SEG also received presentations on the work of ERAC regarding synergies and ERA instruments as well as on the activities of EIB/EIF and ESFRI.

The main issues at stake were identified and, in several rounds of comments, the members of the group provided extensive written input addressing the main points of the mandate as well as the issues.

The present Final Report provides an overview of the current and future policy frameworks, the issues identified by the SEG as well as the main conclusions and recommendations.

1.3 The approach taken

The SEG takes the concept of 'innovation' as the basis for both its analyses of the current programmes and actions and its formulation of recommendations for the future. In this sense, it follows the path set out by the Europe 2020 strategy and the Innovation Union flagship initiative.

Regarding the concept of 'innovation' the SEG adopts the 'innovation systems approach'^{4, 5}, based on the research on the economics of innovation that emerged in the 1980s. The innovation systems approach reveals a number of specific characteristics:

- innovation is a socially activated process;
- rather than being a linear process, innovation is seen as an interactive, reciprocal process involving different actors and organisations; the systemic approach is however fully compatible with the view that a successful innovation is the result of a specific original trajectory from idea to market, encompassing both technological and non technological research and development;
- academic and research institutions are assumed to play a critical role in innovation processes, both because of the tangible outputs of their research (publications, pilot actions, prototypes, and patents), and their contribution to creating highly skilled human capital, but also through intangible impacts related to scientific culture, attitudes, ethical standards, etc.;
- in the core of innovation processes are the interactions between universities and research organisations and entrepreneurs and enterprises and the availability along the innovation trajectory of appropriate public private partnerships (PPP) and of fiscal and financial environments providing an innovation friendly eco-system within the overall socio-economic framework;
- the importance of linkages among the various actors and organisations participating in innovation processes and forming the constituent characteristics of successful innovation eco-systems is stressed, not only in the sense of formal linkages through knowledge transfer arrangements (such as science parks and joint industry-university research ventures), but also through inter-institutional and inter-sectoral mobility of researchers and through 'soft linkages' (such as conferences and internships --- or even common cafeterias!);
- emphasis is put on the 'institutional framework conditions' of innovation processes: conducive environments for entrepreneurship, conditions for staff mobility, the governance processes,

³ Five meetings were foreseen in the Terms of Reference. An extra meeting (15 March 2011) was added later.

⁴ Dill, David D. & Frans A. van Vught (eds) 2010, National Innovation and the Academic Research Enterprise, Public Policy in Global Perspective, Baltimore, The Johns Hopkins University Press

⁵ Smits, Ruud E., Stefan Kuhlmann & Philip Shapira (eds) 2010, The Theory and Practice of Innovation Policy, Cheltenham, Edward Elgar

regulations, risk acceptance, attitudes towards failure, incentives and underlying beliefs that shape innovative behaviour⁶.

The SEG pays particular attention to the 'location-based dimension' of innovation. It assumes that the notions of 'spillovers' and physical proximity are highly relevant to explain the creation of supporting environments for successful innovation. In order to analyse the location-based aspects of innovation the SEG distinguishes three general categories of regions:

- regions with globally connected innovation strengths,
- regions with basic level innovation strengths,
- regions wanting to develop their innovation strengths.

In addition, the SEG makes use of a number of policy-related concepts. It sees 'policy frameworks' as the most general and abstract conceptualisation of policies and defines these frameworks as a set of general normative conditions regarding a specific policy field. A policy framework is assumed to condition the various policy programmes and their operational actions (or sub-programmes) in a certain field of policy by formulating a set of basic assumptions and normative positions.

'Policy programmes' are defined as sets of interrelated policy objectives and the instruments that are applied for achieving these objectives. Policy instruments can be regulatory, financial and/or informative. Regulatory instruments are laws and rules by which formal authority is being asserted. Financial instruments reflect 'the power of treasure' (grants, subsidies, loans, venture capital, fiscal environment ...). Informative instruments allow actors to communicate (to send out messages, launch initiatives, ask for responses, report on conditions, etc.)⁷.

'Policy actions' (or policy sub-programmes) are the most operational level of policy programmes, in which specific policy instruments are being addressed to specific target groups.

In order to analyse the policy frameworks, programmes and actions, the SEG focuses in particular on their objectives, target groups and instruments. It addresses the general foci of their policy frameworks and programmes and pays attention to procedures and the various governance aspects.

The SEG defines 'synergies' as the alignment of and cooperation between policy frameworks, programmes and actions allowing more and better attainment of their objectives. 'Synergies' concern the effects produced by separate programmes that are indeed different but may produce additional coordinated effects by intensive interaction. This does not mean that the distinct programmes have to merge, become similar or 'dominate' (or duplicate) each other. They can continue to be different but at the same time they should aim to jointly contribute to converging objectives.

With respect to the current programming period, the SEG has addressed the following European policy programmes:

- the 7th RTD Framework Programme (FP7);
- the Competitiveness and Innovation Framework Programme (CIP);
- the European Institute of Innovation and Technology (EIT);
- the Structural Funds (SF), consisting of the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund (CF);
- parts of the educational programmes (Life-long Learning Programme, LLP) related to research and innovation.

These programmes may be assumed to be the key instruments at EU level to support research and innovation. Ideally, the European programmes should be closely aligned with Member States' national and regional programmes.

⁶ Dill & van Vught, 2010, 9-10

⁷ Dill & van Vught, 2010, 532-538

Regarding the next programming period, the SEG followed the concept of two policy frameworks as proposed by the EU Budget Review: the Research⁸ and Innovation Framework, and the Cohesion Framework.

The SEG assumes that the following policy programmes (and their various sub-programmes) can be categorised under the two frameworks.

Under the Research and Innovation Framework:

- the new Research and Technology Framework Programme including the European Research Council (ERC);
- the new Competitiveness and Innovation Programme;
- the European Institute of Innovation and Technology (EIT).

Under the Cohesion Framework:

- the European Regional Development Fund;
- the European Social Fund;
- the Cohesion Fund.

In addition, there are the European Agricultural Fund for Rural Development (EAFRD), the European Fisheries Fund (EFF) and the Instrument for Pre-Accession Assistance (IPA) that are also supporting research and innovation to a limited extent.

The SEG addresses both the current and the next programming period. Already for the current programming period, better synergies within the existing fragmented policy programme landscape should enable significant efficiency gains.

In particular for the next programming period, the exploitation of further synergistic effects between the two frameworks will be essential in order to reach the necessary levels of:

- Flexibility, as required for tackling the broad innovation range from idea to market;
- Scalability, in an authentic multilevel system;
- Durability, during the entire programming period until 2020, and
- Resilience, so as to ensure better sustainability against foreseeable or unpredictable crisis.

2 The current policy context

At EU level, current policy programmes have been developed under the 'Lisbon Strategy' initiated in 2000 and revised in 2005.

The problem of synergies between these programmes and instruments – and also with national and regional programmes – has been on the political agenda at European level for several years already. Since 2007, contributions on synergies have come from the European Parliament's Committee on Industry, Research and Energy (ITRE)⁹; the European Research Advisory Board (EURAB; now ERAB, European Research Area Board)¹⁰; the European Commission¹¹; European Scientific and Technical Research Committee (CREST)¹², now European Research Area Committee (ERAC); the European

⁸ 'Research' stands here in short for RTD (research, technological development and demonstration)

⁹ European Parliament, ITRE Committee: Synergies between the EU 7th Research Framework Programme, the Competitiveness and Innovation Framework Programme and the Structural Funds: Brussels, May 2007.

¹⁰ EURAB: Energising Europe's Knowledge Triangle of Research, Education and Innovation through the Structural Funds. Brussels, April 2007

¹¹ European Commission: Competitiveness of European regions through research and innovation. Brussels, COM(2007) 474 final, 18.8.2007; Practical Guide to EU Funding Opportunities for Research and Innovation.

¹² CREST: How to make better coordinated use of Framework Programme and Structural Funds to support R&D. May 2007

Parliament's Committee on Regional Development (REGI)¹³; ERAC's opinion on synergies¹⁴ and the European Strategy Forum on Research Infrastructures (ESFRI)¹⁵. For a summary of earlier analyses see Annex II.

According to the repeated request of the Court of Auditors there is a need in EU research and innovation policy for a clarification of the rationale and motivations ('logique d'intervention') of the various programmes as well as for Specific, Measurable, Achievable, Realistic, Time-bound, – that is SMART – objectives and indicators of achievement.

In the framework of its research and innovation policy, the EU has invested significantly in learning and in catalytic processes: by stimulating collaboration, creating networks, facilitating exchange of experience and promoting evaluation. This approach has produced relevant results, but improvements are still much needed in two directions in particular: the capacity to apply lessons learned must be strengthened, and the failure to develop knowledge on "what works", i.e. on whether and which interventions are producing effects, and "for whom", must be remedied. Furthermore, a less risk-averse approach should be considered which might lead to substantial breakthroughs if successful.

Meanwhile, the acceleration in the further development of the European Research Area (ERA) is generally recognised as a key need. The strengthening of the Framework Programme and all the initiatives aimed at organising and financing high-level research and innovation at EU level, such as the European Research Council (ERC), Joint Technology Initiatives, Research Infrastructures, Joint Programming Initiatives and the European Institute for Innovation and Technology (EIT), is required. Through the development of the EIT and the launching of the first Knowledge and Innovation Communities (KICs) the education and training dimensions have become more pertinent in the overall innovation context.

In parallel, in the context of regional development in the EU, starting with the Barca report in 2009¹⁶, work is under way for the reform of EU Cohesion and Regional Policy. The case has been made for 'innovation' to become a core priority of a reformed cohesion policy with improved focusing and results orientation, better aligned with the Europe 2020 agenda and the Innovation Union.

While the 'Competitiveness and Employment Objective' within the EU Structural Funds covers the relatively better-off regions in Europe, the lion's share of the Structural Funds goes to the relatively poorer 'Convergence regions' (CR). Complementarity and synergy between FP and Structural Funds are important (but also relatively easy) within the Competitiveness and Employment regions, but are a particular challenge in the Convergence regions. Strengthening this complementarity and triggering synergies in these regions should have a high priority in the years to come.

As stated by Fabrizio Barca: "*...in the case of innovation, the general rationale for EU-level funding for innovation through a place-based approach has special importance: ... any policy for innovation needs to be at least partly place-based. ... Capacity building must be geared to places. ... On the other hand, the European level is the most appropriate one for facilitating the opening up of research and innovation areas across national boundaries which is needed for diverse places to interact with each other in a mutually productive way. ...By assigning an important strategic role to the EU level, place-based interventions can be coordinated with the EU policy aimed at supporting 'areas of excellence', turning it into a comprehensive European policy for innovation.*"

¹³ European Parliament. REGI Committee: Report on the implementation of synergies of research and innovation earmarked Funds in regulation (EC) No 1080/2006 concerning European Fund of Regional development and the Seventh Framework Programme for Research and Technological Development in cities and regions as well as in Member States and the Union. 4.5.2010

¹⁴ ERAC 1204/10

¹⁵ 2008 Report of the ESFRI Regional Issues Working Group. Research Infrastructures in – and for – the regions; their role within ERA; cooperation between states; recommendations for the next 5 years. ESFRI 2008; ESFRI 2020 Vision "Inspiring Excellence", see: http://ec.europa.eu/research/infrastructures/pdf/esfri/home/esfri_inspiring_excellence.pdf

¹⁶ F. Barca: An agenda for a reformed cohesion policy. A place-based approach to meeting European Union challenges and expectations. Independent Report prepared at the request of Danuta Huebner, Commissioner for Regional Policy. April 2009

The SEG underlines that it is necessary to consider the fact that the 'location-based dimension' is highly relevant in knowledge - and technology - intensive regions and that knowledge spill-overs decrease with distance. From the perspective of cohesion and inclusive growth, an ex-ante assessment is necessary to understand whether EU innovation policies, while opening national boundaries, would also intensify the geographical concentration of innovation; i.e. concentration of research excellence and innovation capacity in a few EU Member States and a limited set of regions.

3 The new policy context

By the end of 2010, the general European policy context has changed and the orientation towards major achievements by the year 2020 is now at the top of the European agenda. This new context is defined by the Europe 2020¹⁷ strategy and in particular in the Innovation Union¹⁸ flagship initiative, with the EU Budget Review¹⁹ providing general policy guidance.

The Europe 2020 strategy provides a comprehensive vision for European RTD, innovation, education and cohesion policy programmes. There is a clear request that the respective programmes are organised in a way that European goals are achieved and impact is maximised. The focus of the Innovation Union flagship initiative is on knowledge production and innovation. The EU Budget Review calls for the development of common strategic frameworks encompassing the relevant programmes.

Europe 2020 defines the key role of research, technological development, and demonstration (RTD), as well as innovation, as among the most important engines for growth. Europe 2020 puts forward three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

There is clear guidance about the key issue of synergies: *"The discussion should not only be about levels of funding, but also about how different funding instruments such as structural funds, agricultural and rural development funds, the research framework programme, and the competitiveness and innovation framework programme (CIP) need to be devised to achieve the Europe 2020 goals so as to maximise impact, ensure efficiency and EU value added"*²⁰.

The **Innovation Union** flagship initiative adopts a strategic approach whereby innovation is the overarching policy objective and where EU and national/regional policies are designed to contribute to innovation. *"Future EU research and innovation programmes will focus on Europe 2020 objectives and particularly on the Innovation Union"*²¹. Under the '**smart growth**' priority, research and innovation are the key issues. The Innovation Union defines the main commitments necessary for achieving the Europe 2020 objectives and targets for knowledge production and innovation.

The **EU Budget Review** defines the direction for the future orientation of EU funding instruments towards the Europe 2020 strategy and calls for developing common strategic frameworks encompassing the respective relevant programmes.

Regarding cohesion policies it is proposed to *"adopt a **Common Strategic Framework** outlining a comprehensive investment strategy translating the targets and objectives of Europe 2020 into*

¹⁷ European Commission: Europe 2020 – A strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final, Brussels, 3.3.2010

¹⁸ Europe 2020 Flagship Initiative Innovation Union, COM(2010) 546 final, Brussels, 6.10.2010

¹⁹ European Commission: The EU Budget Review. COM(2010) 700 final, Brussels, 19.10.2010

²⁰ Europe 2020, op. cit., p.22

²¹ Innovation Union, op. cit. Commitment No 6, p. 12

*investment priorities. It would identify, in particular, investment needs in relation to headline targets and flagship projects. It would also highlight the reforms needed to maximise the impact of investment supported by cohesion policy. Such a framework would replace the current approach of separate sets of strategic guidelines for policies and would ensure greater coordination between them. It would encompass the actions covered today by the Cohesion Fund, the European Regional Development Fund, the European Social Fund, the European Fisheries Fund and the European Agricultural Fund for Rural Development. The framework would also identify linkages and coordination mechanisms with other EU instruments such as programmes for research, innovation, lifelong learning, and networks.”*²² In the future, smart specialisation strategies²³ will play a key role in the development of the European regions.

Complementary to the new strategic approach towards cohesion policy, the future EU research and innovation activities will be set up as a **Common Strategic Framework for Research and Innovation** encompassing the future EU research activities in the follow up of FP7, CIP and EIT. At policy level, the new strategic approach will substantially improve the conditions for synergies between the various research and innovation stakeholders, and provide a clear opportunity to clarify the intervention logic and to simplify the implementation processes.

The new European policy context (with its three dimensions of smart, sustainable and inclusive growth) is the necessary ‘Common Vision’ for future developments in the European Union, including societal, economic, industrial, and market aspects. The vision comprises European, national and regional dimensions. The two common strategic frameworks mentioned above will have their specific objectives and ways of working in this new policy context. This context provides a set of clear objectives allowing the frameworks to be complementary, interoperable and mutually supportive.

Strengthening synergies between policies, programmes, instruments and actions within the new Europe 2020 policy context offers the opportunity to improve the coherence, interaction, coordination and cooperation among FP, CIP and EIT and Structural Funds and the impact of their measures. Such an approach will overcome the current low level of mutual feed-back and the lack of horizontal coordination between programmes.

At a more operational level, the new EU policy frameworks make it possible to address the current limits in the transfer and inter-linkages between research and regional development, the lack of consistency between plans, and the absence of temporal coordination between EU programmes and the various national and regional policies and programmes. In this sense, the Europe 2020 priorities and the Common Strategic Frameworks may be expected to have the combined effect of strengthening excellence in both research and innovation in the European Union.

4 The main issues

The SEG sees a need for more synergies because faster routes from RTD to innovation have to be developed optimising the utilisation of all the available programmes and instruments.

In order to improve the synergetic effects of programmes, the SEG has defined the main issues to be addressed as follows:

- The fragmentation of innovation policies;
- The sub-optimal coordination between research and innovation and cohesion policies at European, national and regional level, both within and between these policies;
- A lack of common strategies in accordance with the orientation of Europe 2020;
- A lack of coherent and interacting governance structures;

²² The EU Budget Review, op. cit., p.13

²³ European Commission: Regional Policy contributing to smart growth in Europe 2020. COM(2010) 533, Brussels, 6.10.2010

- Weak complementarities and compatibilities, both regarding the regional dimension in research and innovation policy and the research and innovation dimension in regional policy;
- A lack of instruments aimed at supporting the pooling between European and national funds;
- Poor communication, coordination and cooperation between actors and stakeholders at all levels.

The SEG is well aware of the challenges that the various policy frameworks and programmes are facing, such as the different legal bases, the different target audiences and stakeholders, and the different evaluation and implementation methods, criteria and instruments including the centralised versus the decentralised approach (and the lack of stimulus for 'shared management'). Nevertheless, the SEG sees sufficient opportunities to address the main issues indicated above.

In more detail, an important difference between the two sets of programmes is that final priority setting and selection are done at European level and national and regional level respectively. This is clearly visible in the budgetary process: FP7 contains financial envelopes per theme (e.g. nanotech), whereas the Structural Funds establish primarily envelopes per country, possibly also per region. In their implementation, the Framework Programme supports mainly transnational projects (but impacts also on regional capacities) whereas the Structural Funds support national/regional projects (but have impacts on transnational projects).

In order to achieve synergies, in general terms, ways have to be found to strengthen the commonalities and 'bridge' the differences e.g. by adapting the rules between the two frameworks and/or by aligning their orientations in order to increase their compatibility and interoperability and strengthen their complementarity.

The future Cohesion Framework, in the part addressing research and innovation, should take into account the priorities set in the Research and Innovation Framework without however reducing the regional ownership of the Cohesion Framework. In the same way, the future Research and Innovation Framework should consider the impact of excellence on cohesion aspects but, of course, without introducing 'convergence' into its objectives and criteria. Nevertheless, in the Research and Innovation Framework it should be possible to apply also 'regional criteria' where appropriate, e.g. in the course of the selection of sites for Research Infrastructures.

In order to create such links or 'bridges', the SEG emphasises that both the interoperability of the two future frameworks and a functioning and proactive multi-level governance system are crucial preconditions. Furthermore, for achieving synergies with regard to both the design and the implementation of programmes and activities, including national programmes and resources, it will be crucial to ensure active coordination and cooperation at national, regional and local level as well as between support and implementation structures. Ab initio, complementarities and synergies should be designed in the innovation support and implementation structures. At present, the situation is far from optimal.

These general aspects will be addressed in more detail in the following sections.

5 Current programming period

5.1 Introduction

For the current programming period, the overall legal and policy context is defined and given. All considerations for improvement have to take into account the feasibility of implementing new approaches in these circumstances. However, the remaining time of the current period can be used for anticipating the next period.

As was indicated in section 1.3, the SEG applies the notion of innovation and the concept of innovation systems for the analysis and the assessment of the potential synergies in both the current and the future programming periods. Although innovation is high on the EU agenda, the SEG

concludes that, in the current EU RTD and Cohesion policies, while innovation is certainly present, its status in the various policies is unclear.

Therefore, the SEG recommends that the current programming period should be used for clarifying this situation, while bearing in mind the different definitions and outcomes of research, development and innovation²⁴. The objectives regarding innovation should be explicitly indicated and, if necessary, strengthened as far as possible in the implementation activities of all current programmes in the remaining period until 2013. This will offer the best opportunities to foster synergies between the various policies. The overall approach to innovation, and in particular the emphasis on reinforcing the linkages and interactions between the different actors in innovation processes²⁵, should drive the generation of synergies.

In the view of the SEG, this specification of the innovation dimensions of the various EU programmes should also be translated into budgetary terms. In terms of specific budgetary provisions, currently the financial resources assigned for innovation may be found only in the CIP and in the FP, mainly through the Risk-Sharing Finance Facility (RSFF). The resources of the CIP are rather limited in comparison to the overall EU policy ambitions regarding innovation. However, the RSFF will have allocated about € 10 billion debt-based financing for research, development and innovation before the end of this programming period. In FP7, also other resources are certainly devoted to innovation but it is difficult to identify the amounts. Therefore, the SEG recommends that an effort should be made to render more explicit the amount of resources dedicated to innovation that already are available in the other budgets of FP7 in addition to the RSFF.

Referring to the importance of linkages and interactions, the SEG also emphasises the need to intensify the relationships between research activities and exploitation and dissemination activities. The SEG sees this as one of the key challenges to be addressed in the current programming period. An analysis of these relationships in the current programmes will be a good starting point for the further development of this important issue.

In a conceptual sense, the current RTD and cohesion policy programmes have general overall objectives that allow the reinforcement of the interrelationships between them. In the RTD policies, excellence is defined as the ultimate goal for the competitive selection and support of research activities, networks and infrastructures. In the broad innovation area under the current Cohesion policies, the major objective has been 'capacity building', with the intention to stimulate and develop (inter alia) the opportunities to attract, strengthen and make use of excellence, in order to achieve competitiveness in innovation.

Therefore, the SEG argues that, both for the RTD and the Cohesion policies, excellence-based criteria can be seen to apply. In both cases, excellence can be interpreted as the optimal ways to reach the objectives of the respective policies. In the case of RTD policies, the objective is to select and fund the best research and, in the case of the RTD part of Cohesion policies, it is to identify the best and the most promising and relevant regional RTD-based development capacities and opportunities. In this way, the RTD part of Structural Funds should continue to support excellence in capacity building efforts, thus providing a 'staircase to excellence' through RTD and innovation and paving the way for better and faster integration of the Convergence regions in the European Research and Innovation Area. This would also be in line with the Council Conclusions from 9 March 2011 where the Commission is asked to "put forward appropriate actions ... aiming at spreading scientific excellence"²⁶.

5.2 The 7th Framework Programme (FP7)

The most important focus of FP7 is of course the stimulation of RTD. However, in FP7, innovation is also addressed and supported through many activities that are closer to exploitation than research are already part of FP7 projects, e.g. market research and market development, product testing,

²⁴ See Glossary

²⁵ As is explained in the 'innovation system approach'; see section 1.3

²⁶ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/119692.pdf

prototype development (more or less extensively designed), product and service standardisation, business case development and so on. IPR related costs are eligible if they fulfil the general conditions, i.e. that they are incurred during the FP7 project and needed to implement the project. These activities respond already to a clear political message expressed in the Council conclusion from 9 March 2011, where the Commission is encouraged "to continue enhancing the innovation impact of FP7 and notes the Commission's intention to fund projects which take research results closer to the market, and to put additional emphasis on innovation impact when evaluating proposals, as appropriate."

The SEG recommends a specific mention of eligible exploitation-related activities in calls for proposals and an exchange of good practices on such activities in FP7 projects, which adhere to the current framework for state aid in research, development and innovation. This would give companies a better overview of eligible activities. In addition, a stronger emphasis on innovation in the last phase of FP7 - in the 2012 & 2013 Work Programmes - would contribute to gaining experience and also bringing the results of FP7 research projects closer to the market. Possible activities regarding pre-procurement can be considered in that context.

When calling for more funds for innovation, one should consider that, in FP7, grants are particularly suitable for high-risk activities, such as research and technological development that are far from the market. In the SEG's opinion, exploitation and dissemination activities can be sufficiently well addressed by debt-based funding. Therefore, the SEG recommends that when considering an increase of funds for innovation, priority may be given to EIB/EIF, rather than to those schemes in the CIP offering grants for innovation or those of FP offering oversubscribed grants for RTD (with a possible exception for activities related to bringing RTD to the market). Of course, such extra initiatives have to remain within the possibilities of the Work Programmes of the current programming period.

As was indicated before, innovation related activities are also supported with grants through debt-based funding in the RSFF. However, since the latter is not easily suitable for SMEs nor for Research Infrastructures (or public-owned institutions), the SEG recommends that this issue be addressed urgently, possibly through a specialised scheme managed by the EIF in the case of SMEs, or a specific scheme for public institutions, using some of the funds planned for the RSFF.

5.3 The Competitiveness and Innovation Framework Programme (CIP)

In the view of the SEG, the CIP suffers from problems inherited from the very design of the programme, which appears to be an agglomeration of a multitude of actions and previous (small) programmes.

Two thirds of the operations financed under the 2011 work programme, i.e., 14 of the scheduled 21 actions, represent only 9% of the budget. Among these 14 actions, none amounts to more than 1.5% of the first pillar of CIP, the smallest representing only 0.08%. At such a low level of intervention, European added value is at best marginally achieved and synergies with some vigour are impossible to organise.

However, that being said, the SEG acknowledges that CIP-EIP has a clear priority for market and business oriented actions through:

- The financial instruments (that represent around 1/3 of the entire CIP budget and over 40% of the CIP-EIP programme),
- The eco-innovation market replication projects, and
- Supplying business innovation and technology transfer support services via the Enterprise Europe Network and the IPR actions that help FP7 consortia handle their IP issues and that support SMEs in IP related issues, through mobilising the national patent offices and the EPO.

CIP content is affected by some uncertainties in the Commission's approach. Spending on clusters is an example. So far, CIP funds have essentially been allotted to the TACTICS INNO-Net (forecasting

group set up for a period of 3 years, divided into several sub-groups meeting twice a year in different European cities) as well as to several other 'support actions' of the same intensity.

Under CIP-EIP, there are a number of coordinated and mutually dependent projects around the cluster topic, comprising e.g. platforms for cluster actors, policy and economic monitoring and projects to promote better cluster management. DG ENTR works in a perspective of influencing the MS' and regions' policies and actions by identifying good practices, testing them and disseminating the results, and recommending them to all Member States and regions for take up.

The SEG sees a need for closer communication, coordination and cooperation of the CIP with FP7 and with the Structural Funds. Also, little attention has been given to the establishment of the EIT and the long expected Commission communication on clusters policy will not be available until the second half of 2011.

It is of particular concern that due to their low visibility to SMEs and SME representative organisations, several CIP actions have received significant criticism during the interim evaluation. The final evaluation of the Entrepreneurship and Innovation Programme²⁷ concluded that progress has been made concerning the visibility issues highlighted in the interim evaluation; however, it noted the necessity of additional work in this area.

CIP actions designed to create a friendly ecosystem for SME cooperation, entrepreneurship and innovation culture, as well as administrative and economic reforms for business, tend to lack wide spread attention. This is a major issue which cannot find a satisfactory solution as long as the CIP programme remains weakly connected with the regional EU innovation policies.

In the area of innovation by and for SMEs, the SEG recommends that the current programming period should be used to correct the deficiencies pointed out by the interim evaluation²⁸. To focus the first pillar of CIP on co-funding actions that have strong synergies with the SF actions is one way to do it, with a good leverage effect on otherwise under spent funds. Useful lessons are to be learned from the eco-innovation part of the programme, which seems to be able to establish efficient EU-wide relations with the innovative SMEs in the sector. On national/regional level, the authorities may consider using national/structural funds to support those eco-innovation projects which are favourably evaluated at EU level, but remain below the cut-off point. Such an approach would optimise the effort on the side of the users.

In the SEG's opinion, time and manpower should also be devoted to organising the necessary synergies between the financial instruments. One possible solution may be in the end to gather the entire available budget in a single EU fund for innovation, which may or may not be attributed as a revamped mandate to the EIF with a wider mission. This should, however, not necessarily lead to all instruments and initiatives that receive funding from this line having to apply equal rules and procedures.

The CIP has the potential to "oil the wheel" in creating synergies between other programmes. The objective of the CIP programme is to foster entrepreneurship and innovation in SMEs, to promote an intelligent use of energy and to improve the adoption of ICT potentials in services and production processes. In principle, CIP supports also innovation policy development in Member States. Examples are the INNO-Partnering Forum for better SME support services and the TACTICS INNO-Net for supporting cluster development. The SEG recommends that such initiatives should be extended explicitly to identify best practices as well as possible policy synergies between the programmes.

The SEG recommends that during the current programming period, synergies in practice are carefully identified, investigated and assessed using the example of the ICT domain in order to provide useful inputs in future cohesion policies also relating to other areas. ICT is the largest theme in FP7, one of

²⁷ Final Evaluation of the Entrepreneurship and Innovation Programme. Centre for Strategy and Evaluation Services. Kent, UK. April 2011

²⁸ Interim Evaluation of the Competitiveness and Innovation Framework Programme (2007 – 2013). Technopolis group. Manchester, UK. 9 March 2010

the three specific programmes of CIP covers ICT, and one of the Knowledge and Innovation Communities (KICs) of the EIT (see below) falls in the ICT area. In addition, specific guidelines on ICT have been developed in cohesion policy.

The SEG recommends investigating this case by verifying if and how the various programmes can work in cooperation by covering complementary aspects of the ICT constitutive character; for instance by responding to the challenge relating to:

- The future developments of ICT technologies and enabling capabilities (FP7),
- The stakeholder dynamics that can best ensure economic impact and sustainability of ICT-enabled businesses (EIT),
- The most appropriate measures to include SMEs in the loop; the impact evaluation metrics most suited to consolidate the emerging economic models (CIP).

This could be achieved through a pilot project aiming also at identifying the administrative and funding mechanisms suited for this cooperative action.

Synergies between ICT Labs and other ICT initiatives

With a view to the commercialisation of ICT, the 'Future Internet' initiative provides a framework and a platform for creating synergies between ICT-driven initiatives. Synergies could be achieved for example by building on advancing technologies which are ripe for the market. For this purpose, the Innovation Radar and other market research activities of ICTLabs could be used to boost technology transfer and commercialisation out of the wide range of activities and projects funded by the FP in the fields of ICT.

In terms of developing human capital and entrepreneurship, ICTLabs' innovative education agenda with its Master and PhD students provide an opportunity for engaging people in further development, deployment and commercialisation of ICT through start ups and spin offs.

In a medium term perspective, ICTLabs could potentially contribute to ICT standardisation policies.

In terms of advancing scientific collaboration and its potential, ICTLabs could potentially profit from participating in e-Infrastructures (GEANT, large data repositories).

The SEG recommends that lessons learned from the ICT area in the CIP would provide useful input for future developments also in other areas²⁹.

5.4 Education and training

The SEG concludes that the EU policies in the field of education and training are so far only marginally linked to those in the domain of research and innovation. In order to make the knowledge triangle a reality, these policies need to become more closely aligned to both research and the cohesion policies. In the SEG's view, the EIT offers an important opportunity to do so. The EIT, through the Knowledge and Innovation Communities (KICs), has the objective to foster effectiveness and efficiency in innovation by integrating education and training with innovation and entrepreneurship in innovation processes.

²⁹ The objective of ICT research under FP7 is to improve the competitiveness of European industry – as well as to enable Europe to master and shape the future developments of these technologies so that the needs of its society and economy are met. The central question should be if and how the CIP differs, compliments or is redundant – in short what is the additional value of the CIP ICT programme with regard to the FP7 ICT theme? Is coexistence justifiable, measured by obtained results? Is there synergy between the two, are programs worked out in cooperation, avoiding supporting actually the same thing under different administrative procedures?

In the view of the SEG, a crucial aspect of the KICs is that they are addressing the linkages between the local and global aspects of innovation. Through their co-location centres, they add value to local innovation capabilities within the global framework of opportunities pursued by the KIC as a whole. This anticipates synergies and cross fertilisation between the European efforts in research and regional development. The SEG recommends that the development of the KICs should be monitored and lessons learned should be utilised for regional initiatives both in FP7 and in the current programming period of the Structural Funds as far as possible.

The financial envelope of the EIT for the period 2008-2013 was limited - € 308.7 million. However, the funding has been used as a catalyst to draw forth and pool other sources of funding which would not been available otherwise.

The SEG points out that the important role of the EIT can be seen as mainly experimental during the current programming period but needs to be better integrated in the overall EU innovation approach during the next period. To that end, the EIT must be enabled to fully exploit its strengths as a tool to test new innovation/business models, to measure their impacts, and to contribute substantially to capacity-building and smart specialisation. To be able to do so, an appropriate level of operational independence of the EIT will be needed.

The SEG proposes that the EIT initiatives are systematically connected with cluster activities (see below) and with pan-EU research infrastructures already in the planning phases, for example through information sharing and by innovation approaches developed jointly by KICs with clusters and infrastructures, and by exploring and implementing possibilities of synergies and cooperation in the framework of 'smart specialisation'.

5.5 The Structural Funds (SF)

The SF address research and innovation processes, in particular by supporting regional development and capacities. The RTD related parts of the European Regional Development Fund is a prime example of support activities that intend to strengthen regional innovation eco-systems. The European Social Fund (ESF) has an important role in supporting human resource development for research. The Cohesion Fund is usually considered as of lower relevance to research and innovation activities, as it funds major projects in the environment and transport infrastructure in the least prosperous Member States of the Union. The SEG emphasises that the Funds can be exploited better to contribute also to the objectives of 'smart growth', particularly through innovative public pre-procurement, procurement and demonstration projects.

The SEG notes the information in the Commission's Communication "Regional Policy contributing to smart growth in Europe 2020³⁰" on the low level so far (26 % as of September 2009) in the allocation to projects of the € 86 billion available to support research and innovation under the Structural Funds in the current programming period (2007-13). It endorses the view in the Communication that there is a need for "accelerating implementation, optimising the impact of interventions, re-orientating activities towards areas which give regions the best chance of developing competitive advantage, and maximising synergy between the different sources of Community funding for innovation".

The SEG points out that FP7, CIP and the EIT also support regional innovation. In FP7, the Regions of Knowledge (RoK) and the Research Potential (REGPOT) schemes have a regional orientation. Similarly, the Europe INNOVA scheme under CIP and the KICs under the EIT are partially focused at innovation activities at the regional level. However, the KICs do not focus on innovation activities at regional level 'per se'. The main purpose of the KICs is to bridge regional strengths with European and international excellence via notably their co-location centres. Thus, KICs play an important role supporting the local-global connectedness of the regions where they are active.

³⁰ COM (2010) 553 of 06.10.2010 and related Staff Working Document SEC(2010)1183.

5.6 Practical instruments

According to the findings of the SEG, there are a number of 'practical' instruments that allow 'quick wins' with respect to exploiting synergies during the current programming period.

The SEG assesses the Practical Guide³¹ as a very good supporting tool. However, evidence is missing on how it is used in practice. Therefore, the SEG recommends performing an assessment on the implementation of the Guide. In that context also the impact of regional measures and initiatives on participation in FP7 should be assessed including a comparison of Operational Programmes relevant for RTD with FP7 priorities. This should lead to suggestions for future updating and improvement of the Practical Guide with a focus on adopting a user friendly approach (a 'toolbox') presenting a mix of EU funding possibilities under FP, CIP and SF that can best contribute to achieving the European objectives for the present programming period.

The Practical Guide should communicate clearly the objectives agreed between Member States and the Commission according to which the EU funds will be allocated. Positive effects can be expected to result from streamlined funding, reduction of overlaps, and a user driven/friendly approach. These effects can be enhanced by introducing elements of 'strategic roadmapping' and forward looking policies to develop shared understanding between the various stakeholders.

The SEG also recommends exploring the potential for 'new financial instruments' and for a wider cooperation with the European Investment Bank (EIB) by the different Directorates General of the European Commission for the specific funding of innovation activities. The RSFF or similar risk sharing approaches should be extended on the one side to public research and on the other side to technology transfer initiatives, in a coherent approach, taking into account the different needs and aspects in terms of risk evaluation and public debt management. Furthermore, the RSFF could be more systematically used to fund open innovation activities between corporations, research institutes and SMEs. To ensure that the RSFF debt-based instrument can adapt to a wider risk spectrum, it is recommended that innovative means are explored such as the use of grants as credit enhancement in the form of e.g. 'first loss piece' or other arrangements. This would also mobilise a larger contribution by EIB and private sector financing sources and thereby increase the leverage or multiplier effect of the Framework grants.

The SEG emphasises that from a regional perspective already today many of the available instruments thus support the development of competitive regional innovation eco-systems and clusters. An interesting option would be to combine the various instruments per cluster in a complementary way, while keeping their specific functions. A combination per cluster could for instance consist of the SF covering the siting and the construction of research infrastructure, CIP addressing knowledge transfer, FP7 supporting research projects and the operation of Research Infrastructures, and the EIT stimulating the development of the knowledge triangle perspective. The key requirement for achieving such synergies would be robust and smart regional innovation strategies that are shared and jointly implemented by the key stakeholders. The SEG suggests for the rest of the current period to develop and intensify options and trigger the development of integrated projects to combine and mix the instruments from various programmes and to focus on the initiatives that build regional innovation capacities in which these synergies are put into action.

Based on the experiences from the FP7 Research Potential scheme, the SEG further suggests the acceptance of a positive FP evaluation of Research Potential project proposals as an 'entrance ticket' for funding through the Structural Funds as well as for regional and national funding – the idea of a 'Seal of excellence'. In some countries, this approach is already being used to provide national funding for ERC grants, and in some others for ESFRI projects. Roadmapping exercises should be expanded also in terms of developing longer-term visions.

³¹ European Commission: Competitiveness of European regions through research and innovation. Brussels, COM(2007) 474 final, 18.8.2007, Practical Guide to EU Funding Opportunities for Research and Innovation

Similarly, ways should be explored to inform Managing Authorities of the Structural Funds about FP projects (especially ERC grants or highly innovative technological projects containing an element of human resources training) related to their regions that received high evaluation scores but could not be retained for funding because of budgetary constraints. The SEG recommends that if such projects are interesting for its specific regional innovation strategy, the Managing Authority might consider providing financial support to them through Structural Funds.

National authorities and agencies responsible for the FP should inform regional authorities about organisations located in their territorial domains that were successful in FP7, CIP or in ESFRI projects. This would require additional efforts at European, national and regional level to improve accessibility and reliability of FP and CIP data related to RTD and innovation.

5.7 Communication, coordination and cooperation

The SEG has identified several areas where improved and more proactive communication, coordination and cooperation should be high on the agenda. It recommends using the current period for testing pilot actions for communication, coordination and cooperation at and between the various levels identified below. Experiences of synergies achieved at national level could be used. The SEG suggests that, in the context of such pilot actions, also benchmarking through and for excellence (e.g. in the FP7 schemes Research Potential and Research Infrastructures) can be undertaken.

For the remaining part of the current period, the SEG sees the necessity that the Commission develops a new approach for internal communication supporting the forthcoming Common Strategic Frameworks. An appropriate balance has to be found between continuity and change; this applies especially to objectives, terminology, and content as well as to instruments to be conceived for the new programming period 2014 to 2020. Unnecessary and incoherent 'branding' of initiatives and 'breaks with the past' by Commissioners and/or Commission services should be avoided, especially if they are mainly in the wording and not in the content.

The SEG sees an urgent need for improving the Community research and development information service (CORDIS) and developing it from the current disarray towards a user-friendly system.

The SEG realises that there is also a need for ensuring better communication, coordination and cooperation of Commission services within and between the two spheres of action (RTD and Cohesion policies). In the SEG's view, regular consultation and cooperation between different DGs responsible for the different policy areas should be further developed. As an example of good practice, the SEG acknowledges that, in this present exercise, all the relevant DGs are represented and actively involved – DG RTD, DG REGIO, DG ENTR and DG EAC. However, the step from exchanging information and standpoints to working 'out of the box' has still to be made. One possible instrument to catalyze more coordination could be to include cross references within calls for proposals issued in the different programs, highlighting the possibility to present proposals which could be supported in coordinated and complementary ways, also through a common entry point jointly managed by different Directorates.

Practical example of synergies: Organisation of a meeting between the Commission services on the EIT and the Knowledge and Innovation Communities (KICs) on 17 March 2011

The EIT management and the three KICs CEOs were invited to present their activities and initial results to the various interested Commission services. The morning session focussed on cross-cutting issues concerning the EIT/KICs in general (such as governance, funding, and organisation of the partnership); the afternoon was devoted to thematic discussions on energy, climate and ICTs respectively with the relevant DGs. More than 60 colleagues from the following DGs took part in the meeting: DG RTD, DG ENTR, DG INFSO, DG CLIMA, DG ENV, DG ENER, DG BUDG, Sec Gen, BEPA, DG REGIO, DG EAC.

In addition, the SEG recommends that Member States should be encouraged to have better coordination/interaction between ministries and other authorities responsible for the RTD and Cohesion policies respectively given the shared management for the Structural Funds. Indeed, in many countries such coordination/interaction would also need to take place at a regional level. Each Operational Programme of the Structural Funds has a Managing Authority and a Monitoring Committee. It would be important that cooperation with the corresponding FP7 management structures be established, also in terms of information about opportunities to present projects with a coordinator from the region and in terms of sharing 'best practices' in the evaluation/selection of proposals, avoiding multiple evaluations and duplication of efforts.

As a result of the introduction of the two policy frameworks, foreseen in the next programming period, the SEG expects that far reaching reorganisation and simplification of governance will take place, reducing the complexity of advisory, implementation and monitoring bodies at all levels, and ensuring the wider sharing of information. This holds also for the groups with a policy focus such as the European Research Area Committee (ERAC); Enterprise Policy Group (EPG); the External Advisory Groups for FP7 (for the different themes and schemes); STRABO: the Commission's Strategic Advisory Board on Competitiveness and Innovation (CIP); the Coordination Committee of the [Structural] Funds (COCOF); the European Cluster Policy Group (ECPG); European Cluster Alliance (ECA), Europe INNOVA and PROINNO Europe; the Regions of Economic Change and the European Strategy Forum for Research Infrastructures (ESFRI).

In order to improve the communication between different programmes and schemes, the SEG recommends arranging joint meetings between key committees (such as ERAC and COCOF).

Discontinuities in learning curves and a brutal loss of memory should be avoided. In order to prepare the necessary changes, it is recommended to plan an orderly transition by consulting the stakeholders well in advance and to avoid last minute top-down decisions in a matter which will require Member State involvement.

The SEG also recommends closer cooperation between the organisations providing information and advice such as the National Contact Points (NCPs), the European Enterprise Network (EEN) and the respective organisations supporting the implementation of measures related to regional policies. Possibilities of rationalisation and also possible mergers should be explored and considered where appropriate and feasible. In any case, the SEG recommends that information and training for information and advice services on the interoperability of the programmes should be intensified.

Also, better communication with the public is required, including professional approaches by 'communicators' and using multiple communication channels. It has to be explained to the public that RTD and regional development policies are synergetic activities. While having different profiles, both need long-term commitment towards investments into the future for inducing change and ensuring greater impact through mutual convergence.

5.8 Simplification

Without going into detail, the SEG supports all efforts towards the greatest possible simplification in the implementation of the instruments. Simplification of procedures based on a balance between trust and control, and more focused on the achievement of results than on micromanagement – along with participants' commitment to responsible and fair partnering – is a necessity. The recent measures introduced by DG Research and Innovation are a step in the right direction and are most welcome.

The SEG would welcome also simplification measures in the area of the Structural Funds. The simplification activities of DG Research and Innovation can be taken as examples of good practice in that regard.

6 Next programming period

6.1 Introduction

Regarding the next programming period, the SEG followed the conceptual approach of the two policy frameworks as proposed by the EU Budget Review: the Common Strategic Framework for Research and Innovation (Research and Innovation Framework), and the Common Strategic Framework for Cohesion (Cohesion Framework).

The SEG recommends that the two frameworks become better oriented towards complementary and mutually reinforcing (i.e. synergetic) perspectives; that their objectives are defined in accordance with the Europe 2020 strategy and that they are designed in a process of mutual strengthening and enforcement. Coherent, effective and efficient governance structures will be necessary to ensure appropriate interfaces for interaction and cooperation.

The SEG emphasises the need for the two frameworks to follow rules and procedures ensuring interoperability as well as synchronized roadmapping, evaluation and administrative cycles. Applying the same or similar rules to activities of a similar nature will ensure a user-friendly approach. Well-defined entry-points and the possibility to apply for coordinated actions for beneficiaries will ensure optimal accessibility and avoid unnecessary efforts for users.

6.2 A conceptual base for future synergies

The SEG takes note that the two future policy frameworks are clearly different, but stresses that synergies can be a *'leitmotif'*. In this section some major conceptual synergies between the two frameworks will be explored.

The Research and Innovation Framework has as its main policy objective to maximise the contributions to 'smart growth', while the Cohesion Framework primarily focuses on 'inclusive growth'. However, both frameworks also address the respective other priorities of the Europe 2020 strategy. Thus, the Research and Innovation Framework also pays attention to sustainable and inclusive growth, while the Cohesion Framework also addresses smart and sustainable growth. The two frameworks clearly show overlaps, at least in their general foci and in the driving objectives. In addition, the concept of 'smart specialisation' is important for both frameworks.

Using the overall perspective of the concept of innovation introduced before (see section 1.3) the SEG first of all sees an important basis for conceptual synergy in the ways the two frameworks address innovation. As was discussed before, the systems approach to innovation focuses on interactions, linkages and institutional framework conditions. Actors and organisations in innovation processes are assumed to operate in dynamic contexts in which they can jointly produce innovations. The two policy frameworks address these same actors and organisations in their own ways, but they both focus on the importance of fostering and stimulating innovations.

In the Research and Innovation Framework, innovations are assumed to result from the dynamic interactions – including mobility – between knowledge producers, entrepreneurs and transfer agents. In order to stimulate innovation, research is being promoted, entrepreneurship is being encouraged and transfer activities are being supported at European and possibly international level. Technical education and training plays a crucial role. The prevailing horizon is competition at global level and excellence is pursued mainly in that direction.

In the Cohesion Framework, a similar approach is taken. Actors and organisations on the knowledge creation side are the same, but public administration has a more direct and active role. These actors need to be stimulated to develop 'smart specialisation' bringing together research, entrepreneurship and knowledge transfer activities at regional level and increasing the absorption capability and attraction for knowledge and entrepreneurship from other parts of the world.

Both frameworks appear to focus on complementary general objectives; the difference is found in the **scope** of the activities with which the objectives are assumed to be achieved: a European (or even global) scope in the Research and Innovation Framework and a mainly regional (or national) scope in the Cohesion Framework. These scopes are clearly different, but the similarities in their normative conceptual approaches, based on 'excellence' in both cases, appear to allow for major synergies between the two frameworks.

A further conceptual source for synergies between the two frameworks can be found by analysing the '**location-based dimension**' of innovation. In the relevant literature, the concept of 'territorial innovation models'³² has been suggested to explain why innovation appears to concentrate at particular locations. Territorial innovation models are based on the notion of knowledge spillovers and physical proximity that are assumed to lead to supportive environments for regional innovation. Of course, as emphasised already, that is also a pre-condition for the capability of a local innovation eco-system to attract external knowledge and entrepreneurship.

However, more recent analyses show that regional innovation networks should not be seen as hermetically-sealed spaces but rather as loosely bound clusters where actors operating globally can come together to create innovation benefits for their host regions. Regional innovation networks appear to be more competitive if they are better able to use globalised knowledge and experience. The global activities of regionally located actors and organisations therefore are a major asset for regional innovation networks. These global-local connections of individuals (academics, business leaders, public authorities) and organisations (universities, multi-nationals, SMEs, intermediaries, public bodies) create the major spillover benefits supporting regional development³³.

This **global-local connectedness** offers a second major conceptual source for identifying synergies between the two frameworks. The Research and Innovation Framework has as a major objective to support the competitiveness of the EU at a global scale; it intends to increase the global innovation capacity of the Union and it offers a set of programmes and actions that are focused on global innovation activities. The Cohesion Framework addresses the regional level. It intends to increase regional innovation capacities and by doing so it tries to support regional economic growth and EU-wide inclusiveness, which however is an important component of the competitiveness of the EU at a global scale. Symmetrically, the globally-oriented innovation activities in the Research and Innovation Framework by definition have a 'location-based dimension' and, therefore, the regionally-oriented innovation activities of the Cohesion Framework will be most effective if they are globally-connected or provide opportunities for developing such connectedness. Here lies the main potential for major synergies between the two frameworks. The location-based connectedness between the globally-oriented and the regionally-oriented policy programmes allows for the development of an exciting view on synergies.

A third source of conceptual synergy can be found in the way both frameworks can be assumed to make use of the criterion of '**excellence**' to assess and select the most effective ways to reach their various innovation objectives. The SEG thus argues that the concept of 'excellence' should be common for the two frameworks but should be approached, however, from different angles.

In the Research and Innovation Framework, the excellence criterion is applied following a competitive approach to select proposals and to finance research projects and networks and infrastructures as well as coordination and support activities that are assumed to lead to breakthroughs and innovations.

For the research and innovation oriented part of the Cohesion Framework, the key task will be 'capacity building' for supporting regional development based on partnerships at regional and local level following a smart specialisation approach which includes excellence as a driver. This Framework will support the development of regional innovation eco-systems which will be able to attract talent

³² Moulart, F & F Sekia (2003), Territorial Innovation Models: a Critical Survey, Regional Studies, vol.37, no 3 pp 289-302

³³ Benneworth, Paul (2010), University Engagement and Regional Innovation, Brussels, Modern Platform, European Centre for Strategic Management of Universities (ESMU)

and also research and innovation projects as well as infrastructures based both on EU and national (as well as PPP) funding. Thus, the Cohesion Framework will be complementary to the Research and Innovation Framework providing 'staircases to excellence' while at the same time paving the way towards better integration of the less-developed regions in the European Research and Innovation Area.

In both frameworks, the excellence criterion can be operationalised in similar ways, making use of independent peer-review evaluation methods and strategic assessment procedures. In this way, major synergies between the two frameworks can be created.

In the view of the SEG, both frameworks address all three priorities of the Europe2020 agenda, smart, sustainable and inclusive growth, albeit with different foci. The Research and Innovation Framework will primarily be oriented towards 'excellence' contributing to 'smart growth' while the Cohesion Strategic Framework will primarily be oriented towards 'inclusive growth' and capacity building, while creating 'staircases to excellence' through smart specialisation. By doing so the Cohesion Framework intends to contribute to 'smart specialisation' and quality, and the combination of these two will contribute to achieving excellence in regional development

In the context of the Cohesion Framework, it may be pointed out that the shared management approach is at its best when the EU level policy objectives and evaluations are effectively linked to the appropriate administrative and territorial levels and the use of national and regional/local resources within the Member States. It is in fact the one and only operational way to do so, in federal Member States as well as in centralised ones. Thus the shared management approach has a fundamental and complementary role to play in a comprehensive EU innovation policy which is, as has been argued before, to a significant extent, a location based policy. The SEG suggest that, whenever needed, a streamlined coordination is set up, with the aim of creating a greater consistency of regional plans with the Research and Innovation Framework objectives. This consistency should be pursued in all the phases of regional programming: from call for proposal to the evaluation of project achievements.

6.3 Practical synergies

In addition to the conceptual synergies just discussed, the SEG has identified a number of practical synergy elements whose further elaboration and possible implementation should be explored during the coming programming period.

The SEG recommends first of all that, at national and regional level, the National Reform Programmes should integrate the orientation towards the Europe 2020 strategy and the Innovation Union commitments. It will be necessary to ensure proper coherence and coordination of Operational Programmes with the objectives and priorities of the Research and Innovation Framework. The involvement and commitment of national and regional policy makers and stakeholders will be a condition for success. Administrative barriers and procedural differences between the two spheres of action have to be removed.

The SEG also proposes that in the elaboration of the two frameworks the European Agricultural Fund for Rural Development (EAFRD) and the European Fisheries Fund (EFF) are also taken into consideration, which would mean also mutual consideration between the research and innovation policies and the CAP and CFP. This is in line with the request of the EU Budget Review in connection with the Common Strategic Framework for Cohesion.

Thirdly, the SEG of course understands that the two policy frameworks and their (reformed) management procedures are different but they act on convergent objectives, which could be made explicit and visible by joint roadmaps and forward-looking perspectives. They are working separately and may be following different rules and procedures but the two policy frameworks are supposed to have the combined effect of strengthening excellence in both research and innovation in Europe. Coordination and interoperability of the two frameworks will be important. The SEG suggests taking a wider approach to joint roadmapping not only for Research Infrastructures, but also for smart specialisation and to develop this as a long-term vision and planning tool in this wider context.

Fourth, many issues regarding communication, coordination and cooperation have been mentioned before when dealing with the current programming period. The SEG emphasises that these issues have to be addressed also when designing the next programming period. The following shortlist presents an overview of the relevant issues:

- Developing a new approach for internal interaction of Commission services within and between the two spheres of action;
- Reducing the complexities of and improving communication between and alignment of advisory, implementation and monitoring bodies for research and innovation at all levels;
- Stimulating closer cooperation and considering possible mergers of information and assistance structures, such as e.g. National Contact Points (NCPs) and the Enterprise Europe network (EEN), taking into account, however, that the organisation of services for EU programmes differs between Member States and the additional need to coordinate both national and regional levels;
- Establishing a (functionally) single coordination point able to coordinate all the possible synergies between the European frameworks and national and regional schemes, and possibly allowing the presentation of integrated projects to a single 'window', and subjected to the same 'quality' evaluation.
- Ensuring a stronger coordination between European activities and collaborative activities between Member States and Associated Countries;
- Promoting better cooperation between national and regional authorities responsible for the implementation of the Research and Innovation Framework and the Cohesion Framework respectively;
- Improving the communication with and the information of the public at all levels.

Fifth, a crucial aspect of potential future synergies has to do with the alignment of instruments. The instruments of the two frameworks will have to be more aligned and allowed to interact, becoming mutually supportive and 'streamlined'. At Commission level, this will require regular interaction, close coordination and cooperation between DGs wherever needed and appropriate.

Danish experience: When Denmark first set out to write the structural funds programmes 2007-2013, the intentions were to focus the structural funds spending as well as the national spending in the same direction, thereby aiming at getting the maximum leverage effect out of the total national and Community funding. Therefore the themes of the Danish structural funds programmes as well as the national growth policies are innovation, better utilisation of ICT, entrepreneurship and the development of human resources.

With more than two years' experience in managing the structural funds programmes ('More and Better Jobs', ESF and 'Growth and Innovation', ERDF) we sadly find, that the administrative rules on management and controls of the structural funds were much better suited for the types of projects, which were implemented in Denmark in the previous programming period, than they are for the types of projects which are at the core of the programme implementation in the current programming period. To put it bluntly, the rules on documentation of expenditure were suitable for projects which mainly consisted in infrastructural investments or private companies' direct costs for purchase of e.g. consultancy services. These types of expenditure could easily be documented by invoices and payments to external parties.

Today however, as a general rule these types of projects are not eligible under the Danish programmes. Instead we focus on innovative projects where new ideas and tools are being developed in partnerships, consisting of public or/and private partners. Good examples of such innovative partnerships are co-operations between universities, other highly specialised knowledge based institutions, private SMEs or large companies, municipalities and foundations. Typical types of expenditure in these projects are salaries and indirect costs - types of expenditure which are not based on invoices.

Slovenian experience: In the current programming period, Slovenia has focused on making SF funded instruments as simple for the beneficiaries as possible. A good example is a programme, which

aims at strengthening of the research groups in industry, co-funded by ESF. An open call with an output based monitoring was designed, with funding based on unit costs. In this way, the emphasis is on the results, not on the control of the invoices (not needed), which simplifies the scheme for the users, as well as for the administration, while ensuring the outputs.

Finally, the results of evaluation, impact assessment and other studies as well as results of important conferences and consultations will have to be taken into account in the planning for the 2014 -2020 period (e.g. RoK, REGPOT, WIRE Conferences, Cohesion Forums, RfEC Conference, RegioStars Awards, ESFRI road-mapping and benchmarking, and ERAC study on ERA instruments).

A practical example of Synergies: ESFRI and Research Infrastructures:

Research Infrastructures of Pan-EU relevance (RIs), and their Regional Partner Centres (RPCs) attract scientists for the quality of the facilities, and industries for the availability of technologies and products responding to research challenges but with wider market applications. The interplay between challenges and innovation extends also to technical training, education and management. RIs and RPCs are at the core of Innovation cycles of basic research and industrial development, connecting different national, regional and EU resources, creating synergies between excellence, capacity building, industrial support and education.

The ESFRI roadmap on RIs has triggered and is feeding an EU wide process by coherent and interlinked national roadmaps in most EU Countries, based on internationally shared evaluation and assessment of the returns. These roadmaps support local choices based on global/EU perspectives, and attract efforts from different national and EU resources (in particular from FP and SF) involving also public-private partnerships. This is a case of 'smart specialisation', allowing the development of complementary technologies in different regions, but based on a common EU-wide vision.

We have here an example of 'soft EU governance' based on development of trust, understanding of a common strategic framework and sharing international level evaluation, accepted at national and even regional levels. The core of it has been the mix, achieved in ESFRI, between policy makers, scientists and representatives of different EC DGs.

The achievement of an RI or RPC needs a clear planning and integration of the financial aspects, along the various phases of its lifetime involving different stakeholders and different financial instruments. The stakeholders are international (e.g. the EU and the scientific communities), national (e.g. governments, research agencies, and national industries) and local (regional governments, local universities, industries, citizens). Planning involves different phases: the design and preparation (e.g. pre-procurement and qualification of industries, preparing the sites, training the technicians), the construction (connected both to local capacity building and to 'in kind' involvement of other regions), the operation and continuous upgrade (connected to e.g. technical and scientific education and innovative procurement industries), and a decommissioning or refocusing/upgrade phase opening a successive cycle of design-siting-construction etc...

Each phase involves different financial instruments. The operation/upgrade is typically non economic (i.e. not self-sustaining) and will be sustained mainly by public contributions, but its spill-over generates local opportunities (about 70% of the operation costs end in the local economy and generate multiple opportunities) and non-local returns to procurement industries. These expected returns allow the development of the project financing of the construction phase and stimulate public-private partnerships if costs are also partly supported by regional (and SF) funding. A positive feedback is therefore possible between the (mainly) public funding of research/operation and the (mainly) private financing of preindustrial and industrial phases. This can be effectively guaranteed by a coherent interplay of FP funding (of the design and operation phases) and national/regional/SF funding of the site preparation and construction phases, possibly including EIB or other financial instruments. The international evaluation/assessment and ESFRI's 'seal of quality' are important guarantees and risk-limiting factors for project finance.

6.4 Common Strategic Framework for Research and Innovation³⁴

6.4.1 General aspects

The SEG suggests the following possible characteristics and orientations of the future Research and Innovation Framework with specific relevance for synergies with the Cohesion Framework:

- Promoting frontier science for excellence, for society, and for competitiveness³⁵;
- Ensuring the knowledge bases by supporting key enabling technologies and sciences including social sciences and humanities³⁶ as well as their innovative potential by a more explicit indication of innovation support measures;
- Ensuring competitiveness by supporting enterprises' efforts to integrate in global knowledge and innovation networks;
- Promoting growth, open peer reviewed access, pooling of resources and of international evaluation, prioritisation and integration of the EU-level relevant Research Infrastructures as common ERA resources;
- Integrating innovation and entrepreneurship education through the follow-ups of CIP and EIT;
- Addressing education, research and innovation simultaneously and integrally, as constitutive elements of a single innovation cycle, via the EIT and its Knowledge and Innovation Communities;
- Promoting the transformation of new knowledge, know-how and technology into innovative products, processes and services, and implementing these through new models and approaches in existing companies and new start-ups;
- Co-financing regional public/private partnerships, VC-funds etc., and supporting RSFF-like loan-finance that invest in the transformation process;
- Providing schemes for mobility and training of researchers to become technology transfer actors and developing business transformers roles and initiatives.

6.4.2 Innovation and competitiveness

The SEG underlines that the new orientation towards better integrating the innovation dimension into the European research activities provides a bridge towards the regional level. As was suggested before, the SEG argues that 'global-local connectedness' is a major aspect of innovation and offers a prominent playing field for innovations to take place.

However, the SEG finds it necessary to clarify the status, role and specificities of innovation in the Research and Innovation Framework considering, on the one side, the formal limits of EU funding for innovation defined by EU and international competition rules (WTO) and, on the other side, the tightrope walk between cooperation and competition in European project partnerships when coming closer to the market.

The SEG furthermore recommends that, in order to meet the goal of the 'Innovation Union', the relative share of funds supporting innovation and/or innovation-related activities in the Research and Innovation Framework should be made more explicit or expanded if necessary. For the same reason, it is important to ensure clarity in earmarking funds for RTD as distinct from innovation.

The SEG proposes introducing a Small Business and Innovation Research Programme (SBIRP) similar to the US programme^{37, 38} as part of the Research and Innovation Framework (e.g. as follow up of the

³⁴ In the following referred to as Research and Innovation Framework

³⁵ See the FP7 Mid-term Evaluation

³⁶ See the Lund Declaration but including also social sciences and humanities which will be important for addressing the Grand Challenges and also non-technical innovation

³⁷ See <http://www.sbir.gov/about/index.htm>: The U.S. Small Business Administration (SBA) Office of Technology administers the Small Business Innovation Research (SBIR) Program and the Small Business Technology Transfer (STTR) Program. Through these two competitive programs, SBA ensures that the nation's small, high-tech, innovative businesses are a significant part of the federal government's research and development efforts. Eleven federal departments participate in the SBIR program; five departments participate in the STTR

CIP). A certain percentage of research and innovation budgets at EU and Member States level should be allocated only to innovative SMEs. The implementation of this scheme should not imply direct involvement with SMEs but co-funding of appropriate national and regional SME oriented programmes following commonly agreed lines. In case such programmes do not exist at present, the SBIRP at the EU level should definitely stimulate their formation across the EU, which is badly needed at present. The programme should have a clear focus on innovative SMEs and become an important vehicle for applying scientific knowledge to commercialisation and boosting the entry of new high tech companies in emerging industries. The proposal is in line with the objective of bringing research and innovation within a Common Strategic Framework for Research and Innovation to support the full innovation chain 'from the laboratory to the market'.

In line with this, the SEG also recommends strengthening the role of the functions presently covered by the CIP in the new Research and Innovation Framework facilitating the long-term process of building a European innovative and entrepreneurial culture. Such a vibrant EU entrepreneurial and innovative culture cannot be 'built' in one programming period. What is needed is a continuation of effective measures; constant or too frequent changes are contra-productive. In addition, it should be assured that the cost of administrative procedures do not exceed the benefits.

The focus of the future programme elements addressing competitiveness and innovation and the respective instruments should be on:

- Reducing systemic failures hampering evaluation and diffusion of new knowledge and not on the reduction of market failures;
- Stimulating cooperation/networking aimed at commercialisation. In that context, a step-by-step approach should be adopted, based on identified and prioritised problems and using instruments with longer time frames.

The appropriate allocation of the different parts of the CIP needs further consideration. The SEG recommends that, for example, part of the Innovative Energy Europe (IEE) scheme devoted to 'new solutions' should be integrated into the Research and Innovation Framework.

6.4.3 Education and Training

The SEG identified the need for a stronger emphasis on the links between the Research and Innovation Framework and education and training activities (at all education levels).

Education is still the weakest pillar of the knowledge triangle: higher education institutions should be more open and responsive to change, strengthen the links between education and research and between education and business, and promote excellence and attractiveness of institutions to help them compete globally and enhance the attractiveness of the European Higher Education Area. This would entail:

program awarding \$2billion to small high-tech businesses. The U.S National Science Foundation administers the SBIR.GOV site on behalf of the federal government. SBIR is essentially a mandate to the major R&D agencies in the US. to allocate a share of the research budget to innovative small firms, approximately 4%. It is well documented that this programme has the positive impact on developing the U.S. biotechnology industry, stimulating scientists into entrepreneurship- start-ups, "infected" scientist with entrepreneurial spirit...

³⁸ There is no rule under WTO trade law that prohibits member governments from using typical R&D programs to help their companies. Under WTO Agreement on Subsidies and Countervailing Measures certain types of financial contributions to domestic companies are prohibited, those that are seen as unfair trade assistance. See: <http://www.wto.org>. The WTO rules do not prohibit European or any other country from using its domestic R&D programs to benefit its own companies and economy. Therefore, EU and MS have great freedom to design the rules as they wish.

During the Uruguay Round of the 1990s, the US sought and obtained provisions that allow cost-shared public private R/D programs and other R&D assistance. These provisions, however, do not relate to the US Small Business Innovation Program, which exists already since 1982. The current program requires that most federal R/D agencies set aside 2.5 per cent of their extramural R&D funds for small businesses.

- Promoting skills and attitudes conducive to innovation. Transversal or transferable skills (e.g. creativity, finance training, communication, and teamwork) are not sufficiently embedded in education curricula, and need to be strengthened and introduced in various fields of study;
- Encouraging transparency and competition among universities, in order to increase excellence and innovation in higher education and attract global talent to EU higher education institutions;
- Developing partnerships that integrate education institutions in broad innovation strategies;
- Rewarding ideas and promoting an entrepreneurial, healthy risk-taking culture within education and training institutions.

A systemic approach to the idea of the knowledge triangle implies the integration of the education dimension with the research and innovation activities and the adoption of new approaches towards developing capabilities and skills for creativity, management, leadership and entrepreneurship at European level. There is substantial potential for such new lines within the Life-Long Learning Programme (LLP), including Erasmus Mundus, Marie Curie and in particular the education mission of the EIT.

The SEG emphasises that the goal of developing human resources for research and innovation will be of utmost importance in order to generate more benefits out of the resources that are spent for these areas. Exactly how that is done varies between different local eco-systems. The strategy from an EU perspective should be to take a flexible approach in supporting local and national schemes that fit into this category. There is also a potential gain in driving the local /regional and national organisations to synchronise their respective agendas, putting special resources in the new Research and Innovation Framework to promote such actions. The Structural Funds could equally well be used to support the co-location of KICs and other initiatives (as e.g. Research infrastructures) in a given region.

Also, the framework conditions for open researcher careers (in research, development and innovation activities) are important in order to make a dynamic knowledge triangle a reality. In practical terms this has to be addressed and developed in particular by the EIT and the KICs, but also and more widely in the research institutions and in the research infrastructures where research, development and innovation often coexist at the cutting edge.

The future EIT will have an important bridging role between the Research and Innovation Framework and the Cohesion Framework and will be a common tool for both frameworks. In the SEG's view, the EIT should play a key role in:

- Promoting the 'KIC model': KICs allow world-class partners to unite in new configurations, optimising existing resources, accessing new business opportunities via new value chains, addressing higher risk, larger scale challenges;
- Applying advanced concepts of exploitation of research results for KICs following open innovation business models³⁹;
- Creating new business opportunities with a measurable impact on the European economy;
- Identifying the European policies and regulatory choices as well as the new innovation models that better enable those opportunities to be exploited (e.g. open innovation, user innovation);
- Reaching out towards Member States not yet participating in the EIT/KICs by identifying best practice for developing excellence within the knowledge triangle;
- Nurturing and promoting talent from across the Union, by focusing on people and interactions between people as a key ingredient of innovation.

The KICs' effectiveness in creating new lead markets should also be measured and considered as a potentially original contribution to the aims of the Innovation Union. A KIC, through its co-location centres, is in principle well matched to drag the local dimension into the innovation loop. In the SEG's view, the interactive dynamics of knowledge creation, business development and local innovation policy should be challenged with the aim of identifying new synergies between the EIT and other public innovation policies (SF and FP), including new public-private co-funding schemes.

³⁹ See for example: H. Chesbrough: Open Innovation Business Models. How to Thrive in the New Innovation Landscape. Harvard Business School Press. 2006

6.5 Common Strategic Framework for Cohesion Policies (CSFCP)⁴⁰

6.5.1 General aspects

The SEG sees the EC proposal to establish a Common Strategic Framework for Cohesion as a key element in order to relate the objectives of the Innovation Union flagship initiative of the EU2020 strategy to the need to stimulate regional innovation. Efforts in this direction should on the one hand leave flexibility to Managing Authorities to take relevant decisions concerning investment co-funded by EU Regional policy, according to the specific needs of their territories. On the other hand, these efforts should also be complementary to those that need to be undertaken to address the regional dimension within the Innovation and Research Framework.

The SEG sees smart specialisation strategies as crucial tools to operationalise the orientations and principles put forward in the Common Strategic Framework for Cohesion. This will be done through the Development and Investment Contracts and Operational Programmes of the EU Regional Policy consistent with the specific needs of the territories they are covering. In this perspective, smart specialisation strategies – or regional innovation strategies as they have been developed in numerous Regions over the last years – can be an important basis for the definition of investments that could be co-funded by Structural Funds.

Smart specialisation strategies should aim at identifying key objectives and investment choices that are relevant to the specific needs of Europe's territories and citizens, as understood in the broader national, European and global context. To this end, The SEG emphasises that the future relevant Operational Programmes (OPs) should follow regional smart specialisation strategies with the objectives of building and strengthening capacities and capabilities for effective regional innovation. Objectives and investments supported in the OP should be defined in accordance with specific existing or emerging regional innovation strengths. Those strengths are expected, in the long run, to have a close connection to the best globalised knowledge basis in the specific fields of specialisation and to be related to strong industrial and entrepreneurial experiences in these fields.

The SEG suggests that consideration be given to establishing a competition aspect in the CSFCP by installing a 'performance reserve': a certain small percentage not allocated that can be used as incentive for Member States that achieved objectives according to contract with regard to Europe 2020-Innovation Union objective. Such a scheme could be supported by countries on a voluntary basis.

According to the SEG, the development of smart specialisation strategies for the programming of the next generation of the Structural Funds should build on the analysis of the results and impacts of the Structural Funds over the current and last programming period. In this context, at the level of each of the territories covered, ex-ante evaluations of Operational Programmes and of regional strategies should also address and carefully analyse the absorption capacity of SF measures in light of the results of the current programming period.

Finally, the existing approaches to allocating expenditures for research and innovation as well as for the support of training activities have to be improved in order to better take into account strengths and weaknesses, opportunities and threats of regional innovation systems in a national, European and international context thus increasing effectiveness and ensuring impact.

6.5.2 Suggestions for stimulating synergies

On the basis of these general considerations, the SEG wishes to put forward clear suggestions concerning the Common Strategic Framework for Cohesion and its links with the Development and Investment Partnership Contracts, Operational Programmes and smart specialisation strategies.

⁴⁰ Called 'Cohesion Framework' from now on

1- Continuing the development of smart specialisation strategies

For many years, the European Commission has been supporting the development of regional innovation strategies. Efforts already undertaken had a strong impact on the development as such, and on the quality of regional strategies in numerous regions.

In order to strengthen these positive dynamics, the SEG suggests that the principle should be stated that when they are not already existing, smart specialisation strategies – or regional innovation strategies – corresponding to the territories covered by Operational Programmes of the SF's mainstream should be designed and adopted.

The SEG considers the smart specialisation approach as an effective way of exactly reaching these goals; it implies the wish of regions to develop the best capacities and facilities to support their specialised fields of innovation in accordance to the specific needs of their territories.

2- Providing support to Managing Authorities for the development and coordination of smart specialisation strategies

The SEG underlines the need for ensuring coordination and networking between the different innovative regions and of other national or European policies in order to avoid 'irrelevant duplication' of effort. Smart specialisation implies the search for specific regional innovation strengths and by doing so stresses the need to coordinate activities and investments with:

- Key economic and research trends observed at national, European and international levels;
- Other innovative regions, (both with similar and with different specialisation strategies) e.g. through sharing efforts and facilities, joint coordinated road-mapping, networking, etc.;
- Actions supported by other public authorities than the ones responsible of the smart specialisation strategies discussed, at regional, national and European levels.

In order to stimulate this coordination, the SEG recommends that the existing ex-ante assessment of EU Regional Policy should be strengthened and enforced through an international and non-binding peer-review mechanism without imposing an additional reporting layer on Managing Authorities for delivering timely and effective results.

The SEG welcomes the on-going work for the constitution of the Smart Specialisation Platform, which should also provide useful guidance to support those Managing Authorities that need it for the development of strategies. Opportunities for learning from the EC's, and in particular DG REGIO and DG RTD's long-term evaluation experience and proven practice should be utilised, notably in this framework.

This should be understood as a flexible support, and not as a process leading to the definition of compulsory instructions to Managing Authorities. Indeed, the SEG sees the European Commission and international experts consulted in a consultative and benchmarking role as national and regional authorities must remain responsible for the programming of Structural Funds.

Discussions between the European Commission, international experts and the Managing Authorities could focus in particular on:

- The objectives and instruments of strategies already existing or under development;
- The governance of these strategies, in particular the links between the Managing Authorities, and other authorities specifically in charge of innovation and research policies in the territories where Operational Programmes are implemented

3- Leaving flexibility as to the level of investments on innovation and research through Structural Funds

In principle, the SEG supports the approach that the funding level from the Cohesion Framework may be also related to the degree a region/nation supports and contributes to the general objectives of the EU2020 strategy. Such a principle not only emphasises the importance of the 'European dimension' of

regional development but also offers a strong base for the foundation of regional smart specialisation in a broader European and even global context. As such, this principle directly reflects the wish to stimulate the synergies between the two policy frameworks.

However, the SEG suggests that the level of investments spent for research and innovation through Operational Programmes of the Structural Funds should be left to the authority of the Managing Authorities. The SEG therefore recommends that no specific percentage of investment on innovation and research should be set in the Strategic Framework for Cohesion. Rather positive incentives should be designed and established to stimulate the coordination between the two policy frameworks.

4- Facilitating co-funding of operations by Structural Funds and other EU funding sources

The rule whereby a Structural Funds project may not be co-funded by another EU funding source (cf. art 54(5)) should be adapted to the new situation that encompasses research and innovation and regional development. Co-funding of projects through Structural Funds and other EU funding sources should be made possible. 'Project finance approaches', e.g. including EIB and leveraging co-funding and loan service from other (also EU) sources, should be introduced. The possibility to have a 'common entry point' to apply for funding for integrated projects covering both aspects in synergy should be explored.

5- Retaining a broad approach to innovation

According to the Europe 2020 strategy and the Innovation Union flagship initiative, innovation includes both technological innovation and non-technological innovation. The latter is particularly important for regional development because the achievement of new approaches for capacity building towards excellence in the context of smart specialisation strategies will need also to overcome traditional 'technology transfer' concepts. As is being suggested by the 'innovation system approach' (see section 1.3), the out-dated linear model of innovation has to be replaced by advanced systemic approaches for academia-business interaction and cooperation. Therefore, the approach to innovation that is retained should be broad and flexible, in order to enable the regional authorities to make relevant choices according to their needs.

The SEG recommends development of public-private partnerships for both technology transformation activities as well as financing spin-outs. Strong synergetic effects can be achieved by developing public-private partnerships in collaboration with regional and national programmes. Experiences of EIT KIC co-location centres should be taken into account.

6- Suggesting 'Seals of excellence' to Structural Funds

Positive evaluation above threshold level in the Research and Innovation Framework could be recommended as a positive element and quality assurance for Structural Funds and national and regional funding ('Seal of excellence'). Such an approach is already applied, for instance by several Member States in the case of grants from the European Research Council (ERC) that cannot be funded because of FP7 budget limitations. The same has been happening in the development of national roadmaps for Research Infrastructures, benchmarked against the ESFRI roadmap. More generally, Structural Funds are already sometimes used to complement activities funded through the FP.

Concretely, projects that have been given high scores in the Research and Innovation Framework should be communicated to relevant Managing Authorities for their consideration, taking also into account specific priorities defined in the framework of smart specialisation strategies.

In parallel, in order to ensure synergies between the two strategic frameworks, the priorities of the Research and Innovation Framework should be taken into account in these analyses. However, the SEG recommends that this should be rather supported by appropriate incentives than by setting conditions. As an example, a higher co-financing or bonus could be provided for regions opting for greater synergies between the two policy frameworks.

In addition, the SEG suggests that project selection criteria used by the regions in the implementation of support under the Structural Funds should foster EU-consistency, trans-national character and should promote complementarity between partners of different European regions.

7- Stimulating selection of specific projects having a European dimension

In parallel to the support provided through peer-review to the Managing Authorities for the inclusion of a European and international perspective in the general objectives of smart specialisation strategies, specific efforts could be undertaken in order to stimulate the funding, through Structural Funds, of projects having a specific European dimension and which at the same time have a clear socio-economic impact in the territories covered by Operational Programmes.

As an example, discussions organised on smart specialisation strategies in Convergence regions may consider, in a flexible way, the opportunity to support key research projects in line with Innovation Union objectives, notably ESFRI Research Infrastructures projects, while respecting the objectives of cohesion policy.

8- Encouraging innovation dynamics at regional level

Several trends in innovation policies (systemic conceptual approach, clusters, opens innovation, etc.) appear to be emerging in Europe. The SEG suggests that these trends should be communicated in the regions and that the links between smart specialisation strategies and these trends are explored in the light of the specific characteristics of the territories covered by Operational Programmes.

As an example, the SEG sees clusters as one of the vehicles for the development of the smart specialisation process. They will often have the form of triple helix networks, knowledge triangle networks and open innovation networks. The most crucial point about them is however that they are the location-based networks in which effective efforts towards regional development can take place.

9- Stimulating support to transnational cooperation and support for macro-regions through Structural Funds

The SEG supports the possibility of greater transnational cooperation and cross-border investments in the course of the implementation of the Structural Funds, e.g. for strengthening global value chains, developing networks within macro regions and accessing new markets or critical technologies.

The SEG argues that it should be permitted on a voluntary basis to use regional SF funding in other Member States (regions) to develop, in those regions, specific industrial and knowledge transfer capabilities from which multiple regions can benefit, provided that the activities clearly address the objectives behind the allocation of SF. These contributions to 'other' regional innovation clusters will generally take the form of 'in kind contributions' for participation in external activities.

The objective should be that the participation in 'other' regional activities and facilities is connected to training activities and the development of 'Regional Partner Centres' for the contributing regions to ensure that the subsequent availability and activities in the 'other' regions will create a substantial sustainable domestic research effort and a high viability of the acquired industrial capability in the contributing regions⁴¹. In such contexts, the European Social Fund can play an important role in supporting education and training activities.

The SEG recommends that the potential for new concepts of macro-regional initiatives (e.g. Baltic Sea, Danube) be explored in this context, facilitating the use of Article 37.6.b of the regulation for the

⁴¹ An example: ESFRI ELI project (Extreme Light Infrastructure): part of national budgets in EU research infrastructure financed by the participating national states' Structural Funds (Hungary, Czech Republic, Romania). See: L. van Nistelrooij: The future of Cohesion Policy – The key role of Research and Innovation. WIRE Conference, Granada, 15 March 2010

ERDF, the ESF and the Cohesion Fund⁴² (“Operational Programmes may also contain actions for interregional cooperation with, at least, one regional or local authority of another Member State”). However, the SEG acknowledges that several of the cooperation actions can take place within the ERDF from the Convergence as well as Regional Competitiveness and Employment objectives, rather than the European Territorial Cooperation objective.

10- Multi-level governance

In the broad governance context, the SEG sees a need for revision/renewing the fields of intervention under the Cohesion Framework: the existing two-level approach in allocating RTDI funds – core RTD and business innovation - was not the most successful vehicle towards cohesion so far. There is a need for reinforcing the multi-level governance system by better and more systematic cooperation between Member States’ RTDI based Structural Funds investments and investments through the LLP and ESF.

The SEG identified a need for evaluating achievements of projects and recommends that evaluations should be performed on the basis of generated outcomes (e.g. products and services). Here, some incentives could be offered: economic support for the development and pre-commercial phases of the produced solutions (procurement), support for market replication; possibility to co-fund through research and innovation measures, where actions have to be strictly tied to the regional projects.

6.5.3 Innovation and competitiveness

The SEG supports the recommendation of the CIP interim evaluation⁴³ ‘putting in place an inter-DG steering group that is responsible for developing overall programme strategy and overseeing its implementation’. Furthermore, the financial instruments of CIP should be aligned, coordinated or merged with the future RSFF.

The SEG recommends that the follow-up of the CIP ICT Policy Support Programme (PSP) and the Intelligent Energy Europe (IEE) scheme should become eligible for funding under the Cohesion Framework, co-financed by Member States when the need for such support will be identified on the local, regional or national level taking into account the cohesion focuses on four key elements: R&D and Innovation, entrepreneurship, ICT and human capital development.

6.5.4 Education and Training

The SEG particularly recommends focusing European Social Fund (ESF) activities related to research and innovation on the issue of human resource development through education and training and life-long learning initiatives closely aligned with the regional priorities following the smart specialisation objectives. ESF is of particular importance for supporting vocational training and the development of knowledge, capabilities and skills for innovation and entrepreneurship. Also it is important for the development of the necessary competences and the institutional mobility for implementing and managing regional research and innovation strategies and initiatives (including clusters, incubators, and technology and innovation centres). Education and training capacities will also play a key role.

6.5.5 Universities, research organisations and Research Infrastructures

In the view of the SEG, the Structural Funds should give high priority to the modernisation of universities and research and technology organisations – including human resources development and improving equipment.

⁴² COUNCIL REGULATION (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999. Official Journal of the European Union, L210/25-78, 31.7.2006, p. 47

⁴³ Interim Evaluation of the Competitiveness and Innovation Framework Programme (2007 – 2013). Technopolis group. Manchester, UK. 9 March 2010, page IX

Structural Funds should also be better exploited for developing and strengthening the excellence as well as the relevance of the next generation of internationally selected and attractive Research Infrastructures connected to the construction of the ERA (Pan-EU Research Infrastructures and Regional Partner Facilities).

Structural Funds should also be better exploited for the enhancement of KIC co-location centres especially in countries not yet fully participating in the KICs.

6.5.6 Public procurement and pre-commercial procurement

It is urgent to define at EU level a standard for functional public-private partnership applicable to development and demonstration, compatible with:

- Competition policy and regulation of state aid,
- Optimal use of intellectual property rights,
- Cost-effective (leverage) and socially equitable sharing of risks faced by private investors.

Today, the uncertainties and lack of shared view on these public-private partnerships add legal uncertainty to the risks inherent in innovation, and are a major obstacle for private investment in development and demonstrations in the EU.

FP research provides a concrete model, namely 'the consortium', whose shape is by now quite well defined legally, administratively and financially. But this model cannot be extrapolated outside the limited domain that gave it birth: pre-competitive research in the Framework Programmes.

At the other extreme, close to the markets, venture capital, with participation and/or guarantee from public funds or EIB loans is another accepted form of public-private partnership, which is fully endorsed by the Innovation Union.

Public procurement and pre-commercial procurement belong to the same continuum of interventions to be developed in support of innovation when new products, process or services become « marketable».

But for activities between these two extremes, focusing on development, demonstration or infrastructures, we are only at the beginning of an experiment, with the JTIs, ERICs and SET or Recovery Plan. So far, hardly any formalised rules apply and solutions have to be elaborated over years of preparation on a case-by-case basis. An ad hoc Council decision has been required for the JTIs, which was fully appropriate for major technology programmes costing several hundred million Euros. But for entrepreneurial projects of a smaller size, the Innovation Union has for the time being little to offer as a ready to use formula for PPPs, providing an acceptable balance between guarantees for the investors and social reward to society.

Public pre-commercial procurement and procurement concepts should be further developed and simplified. Considering that a significant part of EU spending is based on public procurement, innovative public procurement can play a strong role in the development of competitive products. Yet one of the biggest problems is the fragmented market, where despite the EU regulations (which sometimes are exceedingly heavy and time consuming), over 90 % is spent nationally. The SEG fully supports an important SF Action at EU level which consists of support for trans-national networks of public procurers in the lead market areas (1 MEUR per network within the Lead Market Initiative).

Pre-commercial public procurement (PCP) has a large potential for increasing the funds for innovation and research activities for companies, especially, SMEs. Currently, this is funded on an EU scale as a pilot through a Coordination and Support Action (CSA) instrument in FP7. Additionally, public authorities may submit proposals for networking in PCP under the Regions for Economic Change Programme, funded through the Structural Funds (transnational) as well as under the CIP. It is questionable whether the latter two instruments are significantly different to justify the separate existence of both. On the other hand, the simplification that could be in principle achieved through pre-procurement and/or research-oriented procurement is very unclear, as compared to the very strict

procurement rules. A better definition of how research procurements could be simplified is necessary and could well replace and be more effective than a subsidy based approach.

While on the EU scale, the funding is almost exclusively directed towards research collaboration and networking, Structural Funds on national scale should be used for innovation-oriented public procurement, following the best practices developed within the EU programmes and increasing the competitiveness of the EU compared to other large nations.

6.6 The future of Regions of Knowledge (RoK)

RoK is oriented towards stimulating innovation at local and regional level and concerns all regions in the EU. Focusing on research driven clusters, the RoK scheme is aimed at strengthening and developing the capacities for excellent research in the regions in particular by encouraging and supporting the development, across Europe, of regional innovative (research driven) clusters, associating universities, research centres, enterprises and regional authorities.

Because of the above characteristics, the SEG sees as the most preferable option for RoK to be to integrate the scheme in the Cohesion Framework. However, because of its clear orientation towards excellence in research and innovation there may also be arguments for keeping the scheme in the Research and Innovation Framework. The scheme constitutes a very important link between the Research and Innovation Framework and the Structural Funds.

Of the two options, the SEG finds that integrating the RoK scheme in the Cohesion Framework is the most attractive, and the Territorial Cooperation part would be a very good anchoring place for the scheme. However, whether it is hosted in the CSFRI or in the CSFCP is less relevant: the most important thing is that the activities are continued and further developed in line with the outcome of the experiences of FP7. Due to the overall policy priority of cluster development, a Regions of Knowledge action under the Cohesion Framework might have a general focus on networking regional clusters of all types.

As a consequence, the SEG broadly supports a new instrument in the Cohesion Framework which would strengthen the synergies between the two programmes but acknowledges the need for clustering and regional cooperation, not only from a cohesion and/or capacity building point of view. The objectives of the new scheme have to be coordinated between DG Research and Innovation and DG Enterprise and Industry.

The SEG recommends that the excellence criterion and international peer-review should continue to be applied to project selection after integration in the Cohesion Framework. But more important, a key goal of the RoK scheme should be to support clusters that are focused on strengthening and developing research and innovation excellence in the regions.

The SEG recommends that the RoK scheme should be further developed ensuring full mainstreaming of the scheme in the Operational Programmes in the context of their smart specialisation strategies both within and beyond clusters. In this perspective, evaluation criteria used for the RoK scheme should specifically encourage strong connection between the actions and Operational Programmes of the Structural Funds.

The involvement and commitment of regional authorities will play a key role either through their direct participation as partners or through links established with participating organisations in actions funded under the RoK scheme. RoK should keep its important role of strengthening the links between regions and the Research and Innovation Framework.

The SEG proposes that long-term strategic perspectives should be developed regarding the RoK scheme, in order to avoid fragmentation connected to time limits of instruments applied in the Cohesion Framework and the Research and Innovation Framework.

The SEG also recommends that advanced concepts of regional cooperation between enterprises, universities and research organisations should be considered based on the development of new open innovation business models based on well-designed rules and procedures for the management of Intellectual Property⁴⁴.

In the view of the SEG, an increase of the budget of RoK should be considered based on the result of the RoK evaluation and an ex-ante impact assessment.

The SEG recommends that the streamlining the European cluster schemes (towards a single EU programme?) should be high on the agenda. A better coordination among existing EU cluster programmes is needed rather than ambitious new efforts. This also implies a reconsideration of the role of the European Commission. Existing EU cluster schemes with the same objectives as RoK can be merged with the next generation Regions of Knowledge scheme. The focus of cluster programmes needs to shift towards a clear orientation on excellence, focusing on clusters with the ability and willingness to upgrade in the face of global competition. Most decision-making, particularly regarding clusters, is still taking place at regional/national level.

An alternative to developing a single EU programme could be that the Commission would complement national activities, e.g. through co-financing, and ensure effective coordination between CIP, FP and SF programmes with an explicit cluster focus. This would be a significant departure from existing practice, where the EU either runs its own programmes or provides advice but no incentives to national/regional governments.

Transnational cooperation and coordination of innovation clusters should become an important aspect of the new programme. Similarly, the internationalisation of national/regional clusters should be addressed as an important new issue. Both these approaches will allow the further development of cooperation between clusters, through the development of so-called 'super-clusters'.

The SEG emphasises the importance of the training of cluster managers (currently CIP European Cluster Excellence Initiative). Appropriate links and cooperation with the future CIP scheme or integrating the training measures into RoK should be considered.

6.7 The future of Research Potential (REGPOT)

The experience from the REGPOT scheme in FP7 shows that there is a large demand for this well designed capacity building scheme, which apparently cannot be satisfied by the limited budget available. REGPOT supports the integration of research entities from convergence and outermost regions into the European Research Area and thus follows the 'staircase to excellence' approach (including benchmarking). REGPOT strengthens capacities to participate in European research activities and programmes and contributes to the socio-economic development of the EU and its regions.⁴⁵

REGPOT has an important developing, bridging and integrating role between research and innovation capacities in less developed regions and the research institutions in developed regions by supporting networking and cooperation. Capacity building activities include acquisition of equipment, human resource development through recruitment of excellent researchers and knowledge transfer to researcher on the spot through secondment activities.

REGPOT is a mature and simple scheme well understood and supported by applicants but with an extremely low success rate of below 7 %. Also the impacts of successful proposals are convincing regarding the development of the ERA, improved research quality, output of publication and patents, cooperation with SMEs and other end users of research results, and enhanced relations with S&T policy makers.

⁴⁴ See op. cit. H. Chesborough

⁴⁵ "Research Potential Activity. Preliminary results of work carried out by the Expert Group". Presentation of Yolanda Smits, rapporteur, REGPOT Expert Group during the Meeting of the Synergies Expert Group (SEG) on 14 April 2011

The SEG agrees that a substantially higher budget will be necessary in order to be able to satisfy the strong demand for this scheme.

The main characteristics of REGPOT are capacity building and strengthening local-global connectedness. The SEG supports a clear profile of the two frameworks with the focus of the Research and Innovation Framework on 'excellence' and the priority of the Cohesion Framework on 'capacity building'. Therefore, SEG sees strong arguments for including REGPOT in the future Cohesion Framework as an inclusive tool for the ERA.

However, some specific aspects have to be considered when integrating a follow-up of the REGPOT scheme into the future Cohesion Framework. The SEG points to the fact that for this future scheme a centralised management approach would be preferred, and participation of the regions on a voluntary basis. A substantial increase of budget should be foreseen while considering maintaining 100% funding (as in FP) also after integration in the Cohesion Framework. In addition, other additional funding alternatives should be explored.

The SEG recommends that the aspect of European wide competition as well as the application of international peer review should be kept. The expertise and experience of DG Research and Innovation should be utilized in the future scheme in appropriate ways – especially with regard to project evaluation that could be outsourced to the Research Executive Agency.

The REGPOT programme fits the Cohesion Framework well. It stimulates research centres to align their strategies with the regional smart specialisation strategies of regional innovation systems focusing on the strengthening of globalised research in the regional innovation context. In the new programming period 2014 to 2020, the programme could support knowledge partnerships as strategic alliances both within and between regions while also aiming at setting-up common infrastructures as attractors of resources at a wider level.

7. Main recommendations

7.1 Current programming period

7.1.1 General

1. Use the current period until 2013 for exploring and testing the interoperability between the programmes and instruments of FP7, CIP and the EIT on the one hand and the Structural Funds on the other hand;
2. Perform 'pilot action' tests for communication, coordination and cooperation at and between the various European, national and regional levels preparing for the future approach of common strategic frameworks in accordance with the objectives of the Europe 2020 strategy and the flagship initiatives; take stock of positive examples of synergies developed in some Member States (e.g. in Slovenia);
3. Explore the possibilities for reducing the complexity of and improve the communication between the different advisory, implementation and monitoring bodies for the different programmes - for FP7, CIP, EIT and the Structural Funds; in particular, develop coordination and closer cooperation between the information and assistance structures, National Contact Points (NCPs) and the European Enterprise Network (EEN);
4. Organise the necessary synergies between the financial instruments; improve information and communication about possible ways of combining different funding instruments and the use of complementary funding; explore the possibility to gather the entire available budget in a single EU fund for innovation, which may or may not lead to a revamped mandate to the EIB group with a wider mission;
5. For the rest of the current period, develop and intensify options to combine and mix the instruments from various programmes focusing on the initiatives that build regional innovation capacities;

6. Ensure regular consultation and cooperation between different DGs responsible for different policy areas in order to reduce the existing complexity of instruments and funding mechanism, to simplify administrative procedures and to develop synergies among specific programmes of FP7, CIP, EIT and SF as proposed in this Report;
7. Push forward simplification efforts as far as possible in all programmes covered by this exercise already in the current programming period; take the efforts and previous achievements of DG RTD as examples;
8. Assess the extent of the use and the experiences of users of the Practical Guide⁴⁶.

7.1.2 7th Framework programme for Research, technological Development and Demonstration (2007-2013)

1. Clarify the conditions for strengthening the innovation aspects in the frame of EU research and innovation activities such as the limitations imposed by the EU Competition Rules and WTO Rules on the one side, and, on the other side, the tightrope walk between cooperation and competition in European project partnerships when coming closer to the market;
2. Intensify the relationships between research activities and exploitation and dissemination activities; render more explicit the amount of resources which already are available in the budgets of FP7 in addition to the RSFF and are dedicated to bringing the RTD results closer to the market; an analysis of the situation in the current programming period would be a good starting point for further developing this aspect;
3. In the remaining work programmes of FP7, emphasise activities that are eligible to bring RTD results to the market; in Calls for Proposals, mention explicitly eligible exploitation-related activities and exchange of good practice on such activities;
4. Introduce within the RSFF, using some of its funds, a special scheme dedicated only to innovative SMEs to improve their access to finance since the current RSFF is not optimally suitable for SMEs;
5. In pilot tests, promote the use of RSFF on the one side to public research – where appropriate and possible, as for example in research infrastructures – and on the other side to technology transfer initiatives, in a coherent approach, taking into account the different requirements in terms of risk evaluation and public debt management;
6. Develop pilots in the Regions of Knowledge scheme testing the application of open innovation business models;
7. Utilise benefits of cooperation between ERA-NETs, European Technology Platforms (ETPs) and Joint Technology Initiatives (JTIs) as well as KICs with the regional level;
8. Inform Managing Authorities of the Structural Funds about positively evaluated FP7 proposals from the region (especially REGPOT actions, ERC grants, ESFRI proposals and market replication projects) that could not be retained for funding because of budgetary constraints – the idea of a ‘Seal of excellence’; if such projects are interesting for the specific regional innovation strategy the Managing Authority might consider providing financial support to these projects through Structural Funds;
9. National authorities responsible for FP7 should inform regional authorities about organisations located in their territorial domains that were successful in FP and CIP; this would require additional efforts at European, national and regional level to improve accessibility and reliability of FP and CIP data related to RTD and Innovation; current efforts in this direction are most welcome.

⁴⁶ Practical guide to EU funding opportunities for research and innovation. Competitive European regions through research and innovation. European Commission, Directorate-General for Research, Directorate European Research Area: research programmes and capacity. Unit B4 – Regions of Knowledge and Research Potential. 2009

7.1.3 CIP

1. In the area of innovation by and for SMEs, use the current programming period to correct the weaknesses pointed out by the interim evaluation of CIP, especially 'strengthening the leverage effect of the CIP by institutionalising and improving its linkages with other EU programmes';
2. Extend initiatives under the CIP towards innovation policy development in Member States and identify best practices;
3. Use the example of the ICT domain to identify and investigate synergies in practice between FP7, CIP, EIT and cohesion policy; provide input for future policy developments also in other areas.

7.1.4 EIT and education and training

1. Monitor the development of the KICs and follow the development of the potential catalytic role of KICs between RTD and innovation building upon existing and new R&D activities but fostering them via new added value activities focusing on translation of research results into prototypes and new products and services for existing companies as well as via new entrepreneurial ventures; explore the possibilities to use the KICs as test beds for new approaches fostering innovation; disseminate the lessons learned to other regions both in FP7 – especially in the Regions of Knowledge scheme - but also in the Structural Funds; ensure links with regional clusters;
2. Enable the KICs to apply for funding from other programmes as a KIC partnership (KIC Legal Entity);
3. Promote the use Marie Curie fellowships for the transfer of technologies between science and industry for further development of research results towards marketable products and services – technology transfer through people;
4. Orient the Life-long Learning Programme more on the development of skills for innovation, entrepreneurship, and cooperation between universities and economic actors as well as on multidisciplinary education conducive to innovation.

7.1.5 Structural Funds

1. Better exploit the Structural Funds to contribute to the 'smart growth' objective, particularly through innovative public procurement and demonstration projects;
2. Explore the potential of 'new financial instruments' and a wider use of the European Investment Bank (EIB) for the different Directorates General of the European Commission for the specific funding of innovation activities;
3. Explore the possibilities of debt based funding for dissemination and exploitation activities through EIB/EIF;
4. Orient the European Social Fund (ESF) more on innovation and the development of skills for innovation, entrepreneurship, cooperation between universities and economic actors as well as on multidisciplinary education conducive to innovation.

7.2 Next programming period

7.2.1 General

1. The Common Strategic Framework for Research and Innovation (CSFRI) will promote 'excellence' and the part of Common Strategic Framework for Cohesion Policy (CSFCP) related to RTDI will focus on 'capacity building', but both frameworks will contribute to the objectives of the Europe 2020 and the Innovation Union flagship initiative;
2. Excellence must become a general orienting principle of all future schemes related to research and innovation, not only for the CSFRI but also for research and innovation oriented parts of the CSFCP;

3. CSFRI will work at EU level and will be oriented towards promoting excellence, addressing grand societal challenges, and supporting competitiveness; based on competitive selection procedures applying international peer review.
4. The CSFCP will work at regional level; the research and innovation related parts will complement what is done at EU level and will be oriented towards:
 - Capacity building at regional level and structuring the RTDI sector by providing 'staircases to excellence';
 - Close cooperation and interaction between public authorities, higher education and research, and industry (Triple Helix) in the planning and implementation of common RTDI strategies at national and regional level;
 - Providing user-friendly innovation eco-systems for SMEs and larger companies, universities, and research organisations and their cooperative structures making the knowledge triangle of education, research and innovation a reality;
 - Supporting European Research;
5. Making a reality of the knowledge triangle between education, research and innovation will be a top priority with the Triple Helix of government authorities, industry and high education institutions working together to provide favourable frameworks and eco-systems on the basis of common RTDI strategies at national and regional level;
6. 'Smart specialisation' has to be developed and complementarity has to be ensured with Europe 2020 and with the Innovation Union flagship initiative. This has to be supported by both CSFRI and the CSFCP that should be complementary to each other in the areas of RTDI and education and training;
7. Interoperability of the two future policy frameworks and a functioning multi-level governance system are crucial precondition for success:
 - Rules and procedures supporting interoperability as well as synchronised roadmapping, evaluation and administrative cycles;
 - Ensuring a seamless approach by for example considering CSFRI projects evaluated above threshold for funding from CSFCP funds ('Seal of excellence');
 - Allowing projects to be funded from different funding sources while avoiding double funding;
 - Following simplified and coherent rules and procedures where necessary and appropriate;
 - Applying compatible or common evaluation criteria and processes including international peer review wherever possible;
 - Offering optimal access by providing common entry points or well coordinated and cooperating contact points for information and assistance;
8. Launch a unified EU technology licensing process to enhance commercialisation of RTD results from universities, non-profit organisations and SMEs across EU Member States;
9. Further develop and simplify public procurement including pre-commercial procurement;
10. Improve communication and interaction, coordination and cooperation between different committees and advisory bodies: arrange common meetings between key committees (such as ERAC and COCOF).

7.2.2 Common Strategic Framework for Research and Innovation (CSFRI)

1. The relative share of funds supporting innovation and/or innovation-related activities in the CSFRI should be clearly indicated;
2. Use RSFF more systematically to fund the open innovation activities between corporations, research institutes and SMEs. To ensure that the RSFF debt-based instrument is adaptive to a wider risk spectrum, it is recommended that innovative ways are explored such as the use of grants as credit enhancement e.g. in the form of 'first loss piece' or other arrangements. Such arrangements would also mobilise a larger contribution by EIB and private sector financing sources and thereby increase the leverage or multiplier effect of the CSFRI grants;
3. Put in place an inter-DG steering group that is responsible for developing overall strategies for the functions and activities following the CIP in the CSFRI and overseeing its implementation;
4. Introduce within funds earmarked for research and innovation a Small Business and Innovation Research Scheme ('SBIR' Programme) as part of the CSFRI (e.g. as follow up of

CIP) in line with the objective to increase commercialisation of new knowledge and technologies;

5. Following on from the ICT activities in the current programming period, offer CIP functions across the CSFRI where appropriate; strengthen also activities towards building a European innovative and entrepreneurial culture;
6. Ensure optimal communication, coordination and cooperation of the EIT with other EU and Member State programmes and initiatives;
7. Let KICs test advanced concepts of exploitation of research results following open innovation business models, exploiting the potential of funding from CSFRI, CSFCP and national/regional levels and including the attraction, creation and exploitation of intellectual property created in specific regions⁴⁷;
8. Explore the possibilities of the EIT as a platform for conducting experiments with new approaches towards the exploitation of research results and innovation;
9. Concentrate the available funding of Research infrastructures on the "open access" peer reviewed operation, seeking synergies with Structural Funds and RSFF for their construction and upgrading.

7.2.3 Common Strategic Framework for Cohesion Policy (CSFCP)

1. Reinforce the multi-level governance system by better and more systematic cooperation between Member States' Operational programmes and the Cohesion Framework's investments in research and innovation, as well as investments in education and training through the ESF and the Life-long Learning Programme;
2. Focus activities in the Cohesion Framework related to research and innovation as well as in education and training on capacity building and providing 'staircases to excellence' and follow smart specialisation strategies in accordance with Europe 2020 objectives while contributing also to the objectives as defined by the Research and Innovation Framework;
3. Interoperability has to start with aligning the National Reform Programmes and the Development and Investment Partnership Contracts of the Structural Funds with the Europe 2020 strategies and the Innovation Union flagship initiative in line with the smart specialisation approach;
4. Clearly orient the parts of the national/regional Operational Programmes related to research, technological development, innovation and entrepreneurship, especially in convergence regions, on
 - Developing and implementing smart specialisation strategies;
 - Promoting local-global connectedness;
 - Making the knowledge triangle of education, research and innovation a reality and enhancing cooperation between regional authorities, academia and industry ('Triple Helix');
 - Focusing the support primarily on clusters as favourable eco-systems for innovation and high growth of new firms and industries as one of the vehicles for smart specialisation processes;
 - Considering for funding, when it is also relevant according to smart specialisation priorities defined at regional level, positive evaluation of projects above threshold in the CSFRI – 'Seal of excellence' – ensure optimal communication and exchange of information between CSFRI and CSFCP actors at regional and national level;
 - Promoting the modernisation of universities and research and technology organisations, including professionalisation of human resource development for research, and providing advanced research equipment;
 - Putting the construction and upgrade of Research Infrastructures and Regional Partner Facilities high on the agenda of regional RTDI strategies, connected with a peer-reviewed support of operation by the CSFRI.

⁴⁷ See for example: H. Chesbrough: Open Innovation Business Models. How to Thrive in the New Innovation Landscape. Harvard Business School Press. 2006

5. Consider establishing a competition aspect in the CSFCP by including a 'performance reserve': a certain small percentage not allocated that can be used as incentive for Member States that achieved objectives according to contract with regard to Europe 2020-Innovation Union objectives; such a scheme could be supported by countries on a voluntary basis;
6. Introduce independent international peer review wherever possible and appropriate also in the Cohesion Framework, taking account and learning from the long-term experiences of DG RTD; this holds e.g. for the existing ex-ante assessments of regional policies and strengths in research and innovation, human resource development, and Research Infrastructures;
7. Allow co-funding of activities from funds stemming from the CSFCP and the CSFRI as well as from other EU funding sources in different modalities covering the whole project phase or contributing to different project phases in a complementary way;
8. Use Structural Funds for the enhancement of KIC co-location centres especially in countries not yet fully participating in the KICs;
9. Develop public-private partnerships for both technology transformation activities as well as for financing spin-outs utilising the opportunities of collaborating with regional and national programmes;
10. Focus the European Social Fund (ESF) activities related to research and innovation on the issue of human resource development by education, training and life-long learning initiatives closely aligned with the regional priorities following the smart specialisation objectives;
11. Support the possibility of greater transnational cooperation and cross-border investment in the course of implementing the Cohesion Framework for e.g. strengthening global value chains, developing networks within macro-regions and accessing new markets or key technologies.
12. Ensure coordination and networking between smart specialisation strategies of different innovative regions and support the Smart Specialisation Platform (S3 Platform);
13. Allow the use of regional Cohesion Framework funding in other Member States (regions) to develop, in those regions, specific industrial and technology transfer capabilities from which multiple regions can benefit; providing this will contribute to the convergence of the region allocating the SF funds; explore the potential of new concepts of macro-regional initiatives (e.g. Baltic Sea, Danube) facilitating the use of article 37.6.b of the regulation for the ERDF, the ESF and the Cohesion Fund.

7.2.4 Regions of Knowledge

1. To integrate the RoK scheme in the Cohesion Framework is broadly supported by SEG and anchor it in the Territorial Cooperation part; ensure the full mainstreaming of the scheme in the Operational Programmes considering the smart specialisation strategy both in and beyond clusters.
2. Support clusters that are focused on strengthening and developing research and innovation excellence in the regions;
3. Place streamlining the European cluster schemes high on the agenda and ensure coordination among existing EU cluster programmes rather than ambitious new efforts; consider developing a single cluster scheme or – alternatively – go for an approach where the Commission would complement national activities, e.g. through co-financing and ensuring effective coordination between CIP, FP and SF programmes with an explicit cluster focus; consider widening the focus of RoK to networking of clusters;
4. The SEG emphasises the importance of the training of cluster managers (currently CIP European Cluster Excellence Initiative). Appropriate links and cooperation with the future CIP scheme or integrating the training measures into RoK should be considered;
5. Consider increasing the budget of RoK based on the result of the RoK evaluation and an ex-ante impact assessment;

7.2.5 Research Potential

1. Integrate the Research Potential scheme as an inclusive capacity building scheme in the CSFCP; consider retaining a centralised management approach for the scheme based on voluntary participation;

2. Keep the aspect of European wide competition as well as the application of international peer review; utilise the expertise and experience of DG Research and Innovation in the future scheme in appropriate ways – especially with regard to project evaluation on the basis of international peer review that could be outsourced to the Research Executive Agency;
3. Provide a substantially higher budget in order to be able to satisfy the strong demand for this scheme; maintain the 100% funding (as in FP) also after integration in the CSFCP; explore also other additional funding alternatives.

8. Acknowledgments

The Expert Group acknowledges the support by the Commission services particularly Dimitri Corpakis, Ciaran Dearle and Jean-David Malo from DG RTD and also several colleagues from DG REGIO, DG EAC and from DG ENTR.

ANNEX I

Members of the Synergies Expert Group:

Frans van Vught (Chair): President of the European Center for Strategic Management of Universities, Former Rector and President of the University of Twente, Member of the Board of the European Institute of Technology Foundation; Honorary professor at the universities of Melbourne and Twente; The Netherlands

Manfred Horvat (Rapporteur): Honorary professor at the Vienna University of Technology; Former Director of the Austrian Research Promotion Agency (FFG), Division for European and International Programmes (EIP); Member in several EC Expert Groups; Austria

Helena Acheson: New member of Technopolis; Former Head of Division for Science, Technology & Innovation Policy & STI Awareness Programmes at FORFAS, Ireland

Dan Andree: Special Advisor, Swedish Ministry of Education and Research and VINNOVA; Chair of Working Group on ERA Instruments, European Research Area Committee (ERAC); Sweden

Anton Anton: Vice-Rector for Research at the University of Civil Engineering, Bucharest (since 2008); former Secretary of State, Ministry of Education, Research and Youth, President of the National Authority for Scientific Research (NASR); Romania

Guy Clause: Director for Convergence and Environment at European Investment Bank (EIB), Luxembourg

Giovanni Colombo: Adjunct Professor, Politecnico di Torino; Member of the European Commission's Strategic Advisory Board on Competitiveness and Innovation (STRABO); Member of the Executive Committee of the EIT Governing Board; Former CTO, Telecom Italia LAB and Head of long-term research, Telecom Italia; Italy

Erzsébet Dobos: President, Hungarian Investment and Trade Agency (HITA)

Michel Gaillard, Research Director in CNRS (1976/2009) ; until April 2009: Chef du bureau « Affaires européennes » de la direction de la stratégie à la direction générale de la recherche et de l'innovation, ministère chargé de l'enseignement supérieur et de la recherche ; représentant de la France au CREST; France

Jana Kolar: Director General, Science and Technology Directorate of the Ministry for Higher Education, Science and Technology, Slovenia

Eleni Marianou: Secretary General of the Conference of Peripheral and Maritime Regions of Europe (CRPM), Greece

Helena L. Nilsson: R&D Director, Regional Development, Region Västra Götaland, Sweden

Peter Oakley, Associate Director TWI Ltd, Member of EARTO; United Kingdom

Tea Petrin: Professor of economics and entrepreneurship at the University of Ljubljana; Former Minister for Economic Affairs and later Minister of the Economy in Slovenia; Chair of the European Cluster Policy Group (ECPG); Slovenia

Carlo Rizzuto: Chairman of ELETTRA Research Infrastructure, Trieste; Former Chairman of European Strategy Forum for Research Infrastructures (ESFRI); Italy

Olle Stenberg: Managing Director, Chalmers Innovation, Sweden

Annex II

Terms of Reference for the expert group on synergies between FP7, the CIP and the Cohesion Policy Funds

1. INTRODUCTION

These are the Terms of Reference (ToR) for a group of independent experts set up by DG Research of the European Commission to further explore the synergies between the research and innovation related parts of the 7th Research Framework Programme, the Competitiveness and Innovation Framework Programme and the Cohesion Policy Funds.

2. BACKGROUND, FRAMEWORK & DESCRIPTION OF SYNERGIES BETWEEN FP7, THE CIP AND THE STRUCTURAL FUNDS

2.1 Background

At the Community level, for the current programming period running from 2007 to 2013, the Union possesses three key instruments to support research and innovation:

- the 7th Research Framework Programme (budget €50 billion);
- the Competitiveness and Innovation Framework Programme (CIP) (a part of whose € 3.6 billion budget supports innovation) and
- the Cohesion policy funds⁴⁸, with a budget of € 86 billion for innovation – of which € 50 billion for core RTDI – from a total 'cohesion' budget of nearly € 350 billion.

In addition, research and innovation are also supported under other Community instruments such as the European Agricultural Fund for Rural Development (EAFRD), the European Fisheries Fund (EFF) and the Instrument for Pre-Accession Assistance (IPA).

In recent years, there has been increasing recognition of the need for greater synergies between these EU funding sources. The issue has been examined in reports of the European Parliament⁴⁹, the European Research Advisory Board (EURAB)⁵⁰ – now called European Research Area Board (ERAB) and, most notably, the Scientific and Technical Research Committee of the EU (CREST)^{51&52}, now called European Research Area Committee (ERAC).

Building on this important background work, the Commission adopted the Communication "Competitive European Regions through Research and Innovation" in August 2007⁵³. The key message of the Communication was the need for the Member States and regions to improve the arrangements for co-ordinated preparation and use of the EU funding instruments for research and innovation ("synergies in practice"), now that at policy level synergies between the three instruments have been established ("synergies of policies"). This was confirmed recently in the Communication "Reviewing Community innovation policy in a changing world"⁵⁴, which noted that the coordination of policies to support innovation at regional, national and EU level has to improve significantly and a better governance system is needed.

⁴⁸ European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF).

⁴⁹ "Synergies between the EU 7th Research Framework Programme, the Competitiveness and Innovation Framework Programme and the Structural Funds": ITRE Committee, European Parliament, May 2007.

⁵⁰ "Energising Europe's Knowledge Triangle of Research, Education and Innovation through the Structural Funds": EURAB, April 2007.

⁵¹ "How to make better coordinated use of Framework Programme and Structural Funds to support R&D", CREST, May 2007.

⁵² ERAC Opinion on recommendations and possible options to achieve more synergies between the Knowledge Triangle and Cohesion policies at various governance levels – ERAC 1204/10 – 21 June 2010

⁵³ COM 474 (2007) of 16.08.2007

⁵⁴ COM(2009) 442 of 2.9.2009

2.2 The framework for the development of "synergies of policies"

When looking at possibilities for achieving greater synergies between EU policies relating to research and innovation, it is important to understand the starting points and specific features of each. In effect, while the EU's research, innovation and cohesion policies contribute to the common objective of creating jobs and growth, they do so in different ways. While EU **research policy** focuses on promoting research excellence at international level, **innovation policy** focuses on turning knowledge into business opportunities and new solutions for societal needs, including through process and organisational innovations affecting structures, processes and linkages between organisations. **Cohesion policy**, for its part, focuses on promoting regional development more widely, including in the domains of research and innovation.

Moving from the linear model of innovation, focused on R&D excellence and technology push, to a more systemic approach, which is non-linear, demand-led and based on open innovation, imposes an increased coordination between research, innovation and cohesion policies. Thus, it is necessary to take account of the following facts:

- Each of the policies has a different legal basis in the EU treaty. While the overall goal – jobs and growth – is the same, the objectives need to be defined in accordance with the Treaty.
- Relating to their different Treaty basis, research and innovation instruments target specific themes, while cohesion policy instruments have diverse amounts of investment targeted to regions according to their level of development (convergence regions and other regions).
- There are also differences in implementation methods. The 7th Framework Programme essentially uses competitive calls for proposals at European level. In the evaluation of proposals the Commission is assisted by independent experts and the proposals are selected on the basis of excellence. The Competitiveness and Innovation Framework Programme also attributes grants following calls for proposals at European level for the ICT-PSP and the Intelligent Energy Programmes and for parts of the Entrepreneurship and Innovation Programme, while the financial instruments, which are managed by the European Investment Fund (EIF), work with a permanent open call for expression of interest for financial intermediaries. Regarding the Enterprise Europe Network, also under CIP, it has been set up for 7 years following a call for proposals. Actions supported by Cohesion policy programmes (Operational Programmes) are initiated locally and are decided on the basis of shared management between the EU and the Member States in a system of multi-level governance.
- The importance of CIP and its leverage effect should not be underestimated. It is important that the current levels of budget of FP7 and Cohesion policy, which are of a greater magnitude than the budget of the CIP, do not bias the reflection.
- Reflections and actions have been already engaged in some thematic areas. This is relevant for instance for the ICT domain with policy and regulatory activities undertaken at EU level, ICT constitutes also the largest thematic priority of FP7, one of the three specific programmes of the CIP and specific guidelines on ICT have been also developed in Cohesion policy. Better contextualisation and thematic approaches should be considered when elaborating on how to develop more synergetic actions from research to deployment.

Although it is always necessary, when discussing the three funding sources, to bear in mind their different policy objectives, the conditions are at the moment very favourable for their complementary use, due to the fact that:

- In the 2007-2013 programming period the **time frame of the three funding schemes is the same**, although the budget, methods and timing for allocating the funds to concrete implementing measures differ substantially.
- **The Cohesion policy Funds are increasingly emphasising the role of research and innovation** as a crucial factor for regional development. With the Lisbon strategy and the strategic guidelines on cohesion⁵⁵ this emphasis has been reinforced. The importance of

⁵⁵ Council decision of 6 October 2006 on Community Strategic Guidelines on cohesion (2006/702/EC)

innovation is also highlighted in the Community strategic guidelines for rural development for the period 2007-2013⁵⁶.

- FP7 and CIP **have been taking the role of the national and regional levels into account**. Under the CIP, key innovation actors from all EU regions can be involved in networking projects and the nearly 600 partners of the Enterprise Europe Network provide business and innovation support services to enterprises, innovation centres and universities in all participating countries, including information to SMEs for participating in FP7, in close relation with the FP7 National Contact Points. In FP7, the regional dimension is more important compared to FP6.
- Facilitating access to finance for innovation: there is the possibility for using the ERDF (including both JEREMIE and JASPERS⁵⁷) and the ESF, as well as the CIP financial instruments⁵⁸ and the Risk Sharing Finance Facility⁵⁹ under FP7, that provide better access for financing the development phase of successful research and/or innovation projects.
- **Trans-national cooperation**. While transnational cooperation is one of the core ideas in the FP7 and CIP (the Enterprise Europe Network is the largest business, innovation and technology transfer support network in Europe) the bulk of spending under the Cohesion Policy funds is within specific Member States and regions. Nevertheless, Cohesion policy also provides opportunities to contribute to trans-national cooperation, notably through the European Territorial Cooperation Objective (previously known as INTERREG), a specific part of the Structural Funds that supports the development of cross-border, inter-regional or trans-national cooperation, in particular through networking. Such possibilities are also offered by rural development policy, under the European Agricultural Fund for Rural Development (EAFRD), especially in the area of the Leader initiative⁶⁰.

Now that these "synergies of policies" has been established, it is time to assure "synergies in practice".

2.3 Description of the current situation concerning "synergies in practice"

An important step in developing synergies in practice has been to ensure that the basic reference documents that govern the different funds encourage for them. Thus, the CIP legal base calls for the programme to be complementary to the FP7, Cohesion policy funds and other relevant Community programmes⁶¹, while the Strategic Guidelines on cohesion state that synergy between cohesion policy and the framework programmes is essential in order that research and cohesion policies reinforce each other at regional level⁶². In the case of FP7, the annual Work Programmes of the relevant Specific Programmes draw attention to the opportunities for synergies with the CIP & Cohesion policy funds.

Communication and information are also important preconditions for fostering synergies in practice. In effect, further synergies can only be achieved if the different administrative actors delivering FP7, the CIP and the Structural Funds increase cooperation and know more in detail the opportunities offered by the other instruments at EU but also at national and regional levels.

⁵⁶ Council decision of 20 February 2006 on Community Strategic guidelines for rural development 2007-2013 (2006/144/EC)

⁵⁷ JEREMIE (Joint European Resources for Micro to medium Enterprises) is an initiative of the Commission together with the European Investment Bank (EIB) and the European Investment Fund (EIF) in order to promote increased access to finance for the development of micro, small and medium-sized enterprises in the regions of the EU. JASPERS (Joint Assistance to Support Projects in European Regions) is a resource available from the EIB for the preparation of major projects to be submitted for funding under the Cohesion policy funds.

⁵⁸ http://ec.europa.eu/enterprise/policies/finance/cip-financial-instruments/index_en.htm

⁵⁹ <http://www.eib.org/products/loans/special/rsff/index.htm>

⁶⁰ See http://ec.europa.eu/agriculture/rur/leaderplus/index_en.htm

⁶¹ Recitals 9 and 11 of Decision 1639/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Competitiveness and Innovation Framework Programme.

⁶² Council decision of 6 October 2006 on Community Strategic Guidelines on cohesion (2006/702/EC)

In one of its conclusions, the Communication committed the Commission to produce a "Practical Guide to EU funding opportunities for research and innovation". The Practical Guide is now available both as a document in all EU languages and as web version on CORDIS in English, French, German, Italian, Polish & Spanish⁶³. The same information is also available on CORDIS in graphic format using the standard "mindmap" software⁶⁴.

In a further conclusion, the Communication committed the Commission to prepare a report on the progress made at national and regional level in co-ordinated use of the Community's instruments and on examples of good practice at national and regional level. A Commission Staff Working Document that fulfils this commitment is in preparation.

In addition to the specific actions undertaken by the Commission arising from the conclusions of the Communication, the Member States have also been engaged in the promotion of synergies. For example, the Czech Presidency organised a conference in Prague in May 2009 aiming at increasing participation in FP7. At the same conference opportunities and synergies between CIP, Structural Funds and FP7 were presented. Also, under several recent presidencies, conferences have been organised on the important topic of the opportunities for the Structural Funds to support the development of key research infrastructures across the EU. Recently, the Swedish presidency of the second half of 2009 has organised a series of workshops designed to share experience between research actors in the more developed and in the Convergence regions⁶⁵. Finally, a major initiative to promote synergies has been undertaken by the Spanish Presidency with the Week of Innovative Regions in Europe (WIRE) in Granada in March 2010.

Other examples concern the establishment of concrete mechanism of coordination when a special need arises: Regarding the financial instruments, a potential overlap with instruments under the ERDF has been mentioned in a recent evaluation of the specific programme EIP of CIP⁶⁶. To ensure that there are no overlaps or loss of potential synergies, and that all programmes operate in a complementary manner, regular consultations have been established between the DGs involved, with the aim of a clear and visible deal allocation policy.

3. MANDATE & SCOPE OF THE EXPERT GROUP

The Work Programmes for the calls for the FP7 actions "Regions of Knowledge" and "Research Potential" for 2010 (FP7-REGIONS/REGPOT-2010-3) state that an expert group will be set up to further explore the synergies between FP7, the Structural Funds and CIP, based on the Commission's Communication, the ensuing Practical Guide as well as the report of the CREST from May 2007. The forthcoming 'Innovation Union Flagship Initiative' Communication, the forthcoming EC publication (status still to be determined) on 'Regional Policy contributing to smart growth in Europe 2020', as well as the ERAC Opinion on recommendations and possible options to achieve more synergies between the Knowledge Triangle and Cohesion policies at various governance levels (see footnote 5) must also be taken into consideration.

The expert group should advise on the most appropriate way to ensure synergies between the European programmes and actions supporting research and innovation under FP7, Structural Funds and CIP. In particular it should address:

Current programming period

- State of the art in operation of "synergies in practice": The group should identify tools currently in place that allow complementarities between research and innovation related parts of the programmes mentioned. It should also draw on the content and conclusions of a currently finalising Commission Staff Working Document on the progress made at national and regional level in co-ordinated use of the Community's instruments in support of research and innovation and on examples of good practice at national and regional level.

⁶³ http://cordis.europa.eu/eu-funding-guide/home_en.html

⁶⁴ A mind map is a diagram used to represent words, ideas, tasks or other concepts related to each other and arranged around a keyword or central idea. Mind maps are used to generate, visualise, structure and classify ideas, and as a tool for study, organisation, problem-solving and decision-making purposes.

⁶⁵ Convergence regions are those with a GDP per capita which is less than 75 % of the EU 25 average.

⁶⁶ Interim Evaluation of the Entrepreneurship and Innovation Programme (EIP), submitted by GHK/Technopolis to the European Commission. Final report of 30 April 2009. Available from <http://ec.europa.eu/cip>

- Recommendations for future development of "synergies in practice": Such recommendations would be addressed to the Member States and the Commission services dealing with FP7, CIP and the Structural Funds and should be developed on the basis of both analysis and the actual experience of research and innovation actors in relation to synergies. They should take account of best practice as identified in Commission documents but also problems encountered in the implementation of synergies.

Next programming period

- Recommendations concerning enhanced "synergies of policies & programmes": This concerns the future design and implementation of the three policies (R&D, innovation & cohesion), the funding instruments that support them and the interface with their related policy support structures (such as the ERAC in the case of R&D policy, the European Cluster Policy Group, Europe INNOVA & PRO INNO Europe in the case of innovation policy and Regions for Economic Change in the case of cohesion policy). The scope for the modification of existing structures and relationships and the emergence of new programmes should also be considered.
- Specific recommendations concerning Regions of Knowledge (RoK) & Research Potential (RP): Although the need to develop synergies applies to all aspects of FP7, the two regional actions, RoK & RP, have a particular important role to play in highlighting the scope for a regional dimension in the Research Framework Programme. Therefore, the expert group should specifically address the future of these two actions. In that regard, account should be taken of the results of the impact study of Regions of Knowledge (REGIONS-2010-4) and the Granada conference (REGIONS-2010-2 & REGPOT-2010-4) entitled "Week of Innovative Regions in Europe" (WIRE I).

ANNEX III

Summary of earlier analyses of "synergies"⁶⁷

It is important to underline that the work of the Synergies Export Group builds on significant previous work both of the Commission's services and of external reports.

(a) Work of Commission's services

Following initial work dating back to a Commission communication on the regional dimension of the ERA in 2001, and the subsequent introduction of Regions of Knowledge as a Pilot Action and then in FP6, the development of synergies accelerated following the adoption of a Commission Communication "Competitive European Regions through research and innovation" in August 2007⁶⁸. The key message of the Communication was the need for the Member States and regions to improve the arrangements for co-ordinated preparation and use of the EU funding instruments for research and innovation: in short the development of "synergies" between them.

The Communication also acknowledged in its conclusions the important role of the Commission in promoting synergies. Since its adoption, therefore, a number of practical steps have been taken by the Commission's services in that direction: the 'Practical Guide to EU funding opportunities for research & innovation' was produced; a report containing actual examples of synergies in the use of the different sources of EU research and innovation funding in the Member States is in preparation and steps are being taken to inform national and regional authorities better on the beneficiaries of EU research and innovation funding located in their regions.

(b) External reports

In addition to the work of the Commission's services, the period since the adoption of FP7 has seen the issue of synergies examined in a series of external reports. During 2007, reports on the subject were produced by the European Research Advisory Board (EURAB) – now called European Research Area Board (ERAB)⁶⁹; the ITRE committee of the European Parliament⁷⁰; and, most notably, the Scientific and Technical Research Committee of the EU (CREST) – now called the European Research Area Committee (ERAC)⁷¹.

More recently, the Regional Development (REGI) committee of the European Parliament produced a report on the need for greater synergies⁷². In addition, the WIRE (Week of Innovating Regions in Europe) organised by the Spanish EU Presidency in Granada in March 2010 also examined the issue in depth. Finally, the ERAC again examined the issue of synergies⁷³. In the following paragraphs, the conclusions of these reports are briefly summarised.

(1) EURAB/ERAB

As is suggested in its title, "Energising Europe's Knowledge Triangle of Research, Education and Innovation through the Structural Funds", the report, which was adopted in April 2007, mainly focuses on the role of the Structural Funds. It states that the knowledge triangle of research, education and innovation lies at the heart of successful economies and is relevant

⁶⁷ Prepared by Ciaran Dearle, European Commission, Directorate-General for Research and Innovation, Unit C.5

⁶⁸ COM (2007) 474 of 16.08.2007.

⁶⁹ "Energising Europe's Knowledge Triangle of Research, Education and Innovation through the Structural Funds": EURAB, April 2007.

⁷⁰ "Synergies between the EU 7th Research Framework Programme, the Competitiveness and Innovation Framework Programme and the Structural Funds": ITRE Committee, European Parliament, May 2007.

⁷¹ "How to make better coordinated use of Framework Programme and Structural Funds to support R&D", CREST, May 2007.

⁷² REPORT on the implementation of the synergies of research and innovation earmarked Funds in Regulation (EC) No 1080/2006 concerning the European Fund of Regional Development and the Seventh Framework Programme for Research and Development in cities and regions as well as in the Member States and the Union (2009/2243(INI); REGI Committee on Regional Development; Rapporteur: Lambert van Nistelrooij, 04.05.2010

⁷³ ERAC Opinion on recommendations and possible options to achieve more synergies between the Knowledge Triangle and Cohesion policies at various governance levels – ERAC 1204/10 – 21 June 2010

for all regions, and notes the clear role of the Structural Funds in its development. Among areas where structural funds can support research and innovation activity are the stimulation of regional capacity; commercialisation of research outputs; support for research programmes; improving governance arrangements and developing the international dimension of a region's activities.

The main conclusions and recommendations of the report were that there is significant scope for synergies between FP7 & the Structural Funds, notably concerning capacity building; greater recognition needs to be given to the importance of research-driven clusters; Operational Programmes under the Structural Funds should address a wide range of research and innovation issues such as research infrastructures, commercialisation and international cooperation. Finally, it recommended both that a significant proportion of Structural Funds, of the order of 20 %, be dedicated to research and innovation and that the level of national and regional co-funding might be reduced.

(2) ITRE committee of the European Parliament

The report, entitled "Synergies between the EU 7th research Framework Programme, the CIP and the Structural Funds" was completed in May 2007. It examines the extent of synergies, gaps and overlaps between the three funds at three levels: strategic, programme implementation and operational.

The report noted that the most important potential synergies appear between the Structural Funds and FP7 and the Structural Funds and the CIP, notably in regard to thematic complementarities. The main gaps are related to support measures for those SMES which, while not being the 'top technology pioneers', could benefit from greater integration in trans-regional cooperation while the main overlaps concern support for research infrastructures under both Structural Funds and FP7, and the myriad initiatives aimed at 'policy development' at a cross-country or inter-regional level.

The major overall message of the report is that dealing with these issues will depend on the effectiveness of 'bottom up' strategic processes at regional and/or national levels. The report also recommended that the Structural Funds programmes should sustain and further develop 'regional research and innovation strategic frameworks'; the Commission should undertake a cross-cutting evaluation of inter-regional network funding covering activities under all three programmes and that a more detailed assessment of spatial coverage of possible synergies is required.

(3) CREST

A CREST (now ERAC) Working Group on "How to achieve better coordinated use of Framework Programme and Structural Funds to support R&D" produced the following recommendations for better-coordinated use of the Framework Programme for Research and Technological Development (FP) and the Structural Funds (SF) to support R&D.

A comprehensive RTDI strategy is an important tool to undertake and coordinate actions – and actors – for the development of an RTDI system. FP and SF offer support for the development, implementation and assessment of RTDI strategies, taking into consideration also a coordinated use of FP and SF.

Human resources and research infrastructures are two central pillars for the development of RTDI systems. SF contribute to build, mainly in less developed regions, the physical and human capacity to undertake research, while FP7 connects regional actors to European and global knowledge communities.

Developing the quality of the RTDI system to the level of international competitiveness is essential. Both FP and SF offer opportunities to build up excellence, with FP focusing on promoting European and international collaboration of excellent quality and SF on strengthening research and technological development capacities.

The sustainable efficiency of RTDI systems needs connections to international networks and trends at the European level and beyond. The coordinated use of FP and SF provides opportunities to this respect.

To achieve the aims of the Lisbon strategy, it is important to develop new products, processes and services from research knowledge. Valorising results and transferring knowledge to the economy can become more efficient when using FP and SF in a coordinated way.

Crucial elements for better coordination of FP and SF – as well as for the whole functioning of the RTDI system – are information availability and good communication among actors. These are needed to establish links between the FP and SF “communities” and are preconditions for better coordination.

(4) REGI committee of the European Parliament

The REGI Committee of the European Parliament produced a report on the implementation of synergies between research and innovation funding under the European Regional Development Fund, FP7 in cities and regions as well as in the Member States and the EU. The Report aimed, on one hand, to analyse how the indicative framework of the Community Strategic Guidelines on cohesion policy was followed by the Member States and regions in their National Strategic Reference Frameworks and Operational Programmes. On the other hand, it examined the synergies between cohesion, research and innovation policies and their instruments (Structural Funds, the Seventh Framework Programme for RTD and the Competitiveness and Innovation Framework Programme).

The report covers the analysis at the regional level of the potential and requirements of research and innovation and the exchange of good practice; simplification of procedures relating to FP7 and CIP to improve the effects of synergies with the Structural Funds; simplification of aid applications for various programs; Commission activities to stimulate synergies, including vertical cooperation between the EU and national and regional entities; the role of EU instruments to support innovation, streamlining of procedures and the creation of incentives for innovative smart, sustainable and inclusive growth; territorial cooperation in innovation; harmonisation and simplification of rules, procedures and practices; strengthening synergies through the next programming period; the development of specific evaluation criteria and regulatory incentives for innovative projects and cooperation between actors such as national contact points, managers of research and innovation programs, innovation agencies, the "Enterprise Europe Network" and the Managing Authorities of Structural Funds.

(5) WIRE conference

During the Spanish Presidency in the first half of 2010, the Ministry of Science and Innovation co-organized, together with the European Commission, the "European Week of Innovative Regions" in Granada, Spain. The conference adopted the following conclusions that were later forwarded to the Competitiveness Council.

FP-CIP-SF coordination should be improved, by the analysis of possibilities of a clear trajectory over the different funds.

Regions should develop integrated and tailor-made strategies pursuing “smart specialisation” by defining a few research and innovation priorities based on the European objectives and on their needs and potentials, identified in partnership with stakeholders, and concentrate earmarked EU resources on these identified priorities.

Development of research-driven clusters has been identified as a tool for efficient interaction of funding and further analysis of potentialities should be fostered.

There is a need for clearer structures and substantial simplification of participation rules for all research and innovation funding, regardless of its origin, with the objective to strengthen therefore the overall research and innovation system, enable a more efficient use of funds and instruments, and ensure better participation by SMEs.

There is a need for definition of objectives and indicators compatible with the Europe 2020 Strategy and the ERA, and further evaluation of progress. Development of common projects

of assessment of results of the several community instruments and their impact in the attainment of results by regions at the light of the EU2020 priorities is required. For the future, the debate on the next financial perspectives (beyond 2014) must be based on an analysis of good practice in the use of funds and the desired achievement of synergy between community, national, and regional instruments.

(6) ERAC working group on synergies

The ERAC group on synergies prepared a questionnaire that was submitted to all ERAC members and subsequently developed the following recommendations based on the received replies.

There is a need for stronger integration and more synergies within the knowledge triangle both at EU, National and Regional level. All relevant stakeholders at these levels should be mobilised to create a common vision that will lead to holistic policy strategies and, inter-operational support programmes.

The knowledge triangle with firm roots in all governance levels can contribute to all three priority areas of the EU 2020 strategy: smart growth, sustainable growth and inclusive growth. These areas all require a balanced combination of Research, Innovation, Enterprise, Education and Cohesion policies that contribute to the goal of improving the attractiveness and competitiveness of Europe and can increase the effectiveness of the instruments concerned.

Better policy coordination within the relevant Commission departments and among the different Council formations - but also cross-departmental cooperation within individual countries and regions, which is a *sine qua non* condition for successful innovation policy.

Better promotion of the "Knowledge Triangle" as a concept to widen its acceptance. Especially the integration of business innovation and entrepreneurship in the fields of education and research as a major "raison d'être" is not always the case yet.

ERAC has the mandate to develop more synergies. This should be a fixed part of the work program of the ERAC Committee, in cooperation with the relevant advisory groups on education and innovation. ERAC should in consequence also develop principles (guidelines and best practices) for stronger coordination between the Knowledge Triangle and the Structural Funds.

Strengthen synergies between FP, CIP, LLP, and SF addressing the whole life cycle of a project ranging from research to demonstration and knowledge transfer. The programs should be implemented in line with the principle of smart specialisation, taking account of not only excellence but also relevance and potential impact criteria. In this context it is important, in the planning of FP8 and the next CIP, to consider how research based innovation could be better integrated in the FP.

Interoperability between instruments should be a guiding principle. Although their objectives are partly different the administrative conditions, financial framework and criteria should be compatible as much as possible and administrative barriers be decreased. A user-perspective is needed, especially emerging SME's should be supported by a seamless set of inter-operational instruments.

There is an important role for EIT as a pilot instrument even if the experience is still limited. The KIC's cover the complete knowledge triangle. SMEs should play an important role within the KIC's. KIC's link an international scope with co-location and co-creation and combine in this way international networks with strong local clusters. They can do what the future Framework Programme should do. There shall be no preferential treatment for sectoral or geographical entities. With view of smart growth and specialisation, excellence can be found everywhere in the innovation chain as long as an ecosystem provides for a level playing field.

Stronger accent on links between FP, Cohesion funds and Education needed (at all education levels) for developing a systemic approach with education at the European level. There is a lot of potential within the Lifelong Learning Program, Erasmus Mundus and Marie Curie. They should support the implementation of the knowledge triangle including supporting models for partnerships between institutions for higher education and research and the business sector. Also, learning mobility should be enhanced together with new types of research based education that is directly linked to business needs and employability. Finally, transversal competences such as entrepreneurship should be stimulated which are key for the implementation and integration of the knowledge triangle.

Pragmatic, flexible approach to synergies, not a panacea. The user principle must be leading, demand led policies will include often all three elements of the knowledge triangle, but in a variable geometry. Ex ante impact assessment and better indicators should lead to a well-balanced policy-mix.

ANNEX IV

Acronyms and abbreviations

AC	Associated Country
CAP	Community Agricultural Policy
CF	Cohesion Fund
CFP	Community Fisheries Policy
CIP	Competitiveness and Innovation Framework Programme
COCOF	Committee of the Coordination of the Funds
COM	Communication of the European Commission
CoR	Committee of the Regions
CR	Convergence Region
CREST	EU Scientific and Technical Research Committee
CSA	Coordination and Support Action
CSFCP	Common Strategic Framework for Cohesion Policy
CSFRI	Common Strategic Framework for Research and Innovation
DG	Directorate General of the European Commission
DG EAC	DG for Education and Culture
DG ENTR	DG Enterprise and Industry
DG INFSO	DG Information Society and Media
DG RTD	DG Research and Innovation
DG REGIO	DG Regional Policy
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
ECPG	European Cluster Policy Group
EEN	Enterprise Europe Network
EIB	European Investment Bank
EIF	European Investment Fund
EIT	European Institute of Innovation and Technology
EP	European Parliament
ERA	European Research Area
ERAB	European Research Area Board
ERAC	European Research Area Committee
ERA-NET scheme	Scheme to step up the cooperation and coordination of research activities carried out at national or regional level in the Member States and Associated States (Coordination and Support Actions)
ERC	European Research Council
ESFRI	European Strategy Forum for Research Infrastructures
ERDF	European Regional Development Fund
ESF	European Social Fund
ESMU	European Centre for Strategic Management of Universities
ETF	European Technology Platform
EU	European Union
EUR	Euro
EURAB	European Research Advisory Board
EURADA	European Association of Development Agencies
Europe INNOVA	Partnership for better Innovation Support, DG ENTER
FP	Framework Programme
ICT	Information and Communication Technologies
IEE	Intelligent Energy Europe
IPR	Intellectual Property Rights
IRE-Network	Innovating Regions in Europe Network
IST	Information Society Technologies

IT	Information Technology
ITRE Committee	Committee for Industry, Technology, Research and Energy, European Parliament
JASMINE	Joint Action to Support Micro-finance Institutions in Europe
JASPERS	Joint Assistance to Support Projects in European Regions
JEREMIE	Joint European Resources for Micro to Medium Enterprises
JESSICA	Joint European Support for Sustainable Investment in City Areas
JPI	Joint Programming Initiative
JTI	Joint Technology Initiative
KIC	Knowledge and Innovation Community (EIT)
LLL	Life-long Learning
LLP	Life-long Learning Programme
MEUR	Million Euro
MS	Member State
NCP	National Contact Point
RfEC	Regions of Economic Change
OJ	Official Journal of the European Union
OP	Operational Programme
PCP	Pre-commercial procurement
PRO INNO EUROPE	New and better innovation Policies for Europe, DG ENTER
PSP	Policy Support Programme
R&D	Research and Development
RCE	Regional Competitiveness and. Employment
REGI Committee	Committee for Regional Development, European Parliament
RIS	Regional Innovation Strategy
RP, REGPOT	Research Potential
RoK	Regions of Knowledge
RSFF	Risk Sharing Finance Facility
RTD	Research, Technological Development and Demonstration
RTDI	RTD and Innovation
S3	Smart specialisation strategies
SEG	Synergies Expert Group
SF	Structural Funds
SMEs	Small and Medium-sized Enterprises
SRA	Strategic Research Agenda
STRABO	Commission's Strategic Advisory Board on Competitiveness and Innovation (CIP)
ToR	Terms of Reference
VC	Venture Capital
WIRE	Week of Innovative Regions of Europe
WTO	World Trade Organisation

ANNEX V

Glossary⁷⁴:

Applied research	Applied research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. ⁷⁵
Basic research	Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. ²
Experimental development	Experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed. ²
Innovation	An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relation. The minimum requirement for an innovation is that the product, process, marketing method or organisational method must be new (or significantly improved) to the firm.
Innovation activities	All scientific, technological, organisational, financial and commercial steps which actually, or are intended to, lead to the implementation of innovations. Some innovation activities are themselves innovative others are not novel activities but are necessary for the implementation of innovations. Innovation activities also include R&D that is not directly related to the development of a specific innovation.
Open Innovation	The emerging paradigm for innovation, involving business models that use partnering, licensing and venturing to combine internal and external sources of ideas and technologies.
Public procurement	Public procurement refers to contracts covering supplies, services and works purchased by the public sector. Public procurement is subject to EU and international rules, although not all public procurement is subject to these obligations. Under these rules public sector procurement must follow transparent open procedures, ensuring fair conditions of competition for suppliers.
Small and Medium-Sized Enterprise	According to Article 2 of the Annex to Recommendation 2003/361/EC, the category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding €50 million, and/or an annual balance sheet total not exceeding €43 million.

⁷⁴ Source: When not specified otherwise the definitions are taken from: http://ec.europa.eu/enterprise/glossary/index_en.htm

⁷⁵ Frascati Manual 2002. Proposed Standard Practice for Surveys on Research and Experimental Development. OECD, Paris, 2002, p. 30

European Commission

Synergies between FP7, the CIP and the Cohesion Policy Funds: Final report of the expert group

Luxembourg: Publications Office of the European Union

2011 — 68 pp. A4— 21 x 29,7 cm

ISBN 978-92-79-20892-8

doi 10.2777/72795

How to obtain EU publications

Free publications:

- via EU Bookshop (<http://bookshop.europa.eu>);
- at the European Commission's representations or delegations. You can obtain their contact details on the Internet (<http://ec.europa.eu>) or by sending a fax to +352 2929-42758.

Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>);

Priced subscriptions (e.g. annual series of the Official Journal of the European Union and reports of cases before the Court of Justice of the European Union):

- via one of the sales agents of the Publications Office of the European Union (http://publications.europa.eu/others/agents/index_en.htm).

The issue of synergies between the Framework Programme (FP), the Competitiveness and Innovation Framework Programme (CIP), and the Structural Funds (SF) has been on the agenda at European level for several years and is examined in the report of the Synergies Expert Group. The expert group included also the European Institute of Innovation and Technology (EIT) and parts of the Life-Long Learning Programme (LLP) in its deliberations and analyses.

Cover image: © 1997, PhotoDisc Inc.



Publications Office

ISBN 978-92-79-20892-8

