

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

1- Introduction

This paper details a number of key concerns with regard to budgetary decisions affecting the Framework Programme (FP) and the Structural Funds. After outlining some of these concerns, the paper then considers a concrete example of possible synergy between the FP and the structural funds, one drawn from Portuguese experience. To finish with, a number of ideas about how best to improve EU practice will be made. These are offered in preparation for a workshop that will be held shortly after the summer recess.

2 - Synergy between the Framework Programme and Structural Funds

This is a particularly crucial moment for the European scientific community as the European Parliament, the Council and the Commission are preparing the future European Research and Innovation programme Horizon 2020 - the successor to the

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

Seventh Framework Programme. The European Institutions have also begun negotiations around the future EU budget, post-2013.

Over the coming years, the EU will face a number of major challenges such as climate change, the ageing of the population, food security issues, the security of the energy supply and increasing global competition. Research and innovation lie at the heart of the EU2020 Strategy and, if successfully pursued, will enable us to overcome these difficulties whilst stimulating growth and jobs.

These objectives guide European policies and have a direct relation to such things as EU cohesion and the EU research policies. Cohesion policies are dedicated to supporting economic and social cohesion, reducing disparities between European regions and promoting growth and employment. EU research policy aims at supporting excellent research and development activities whilst strengthening the European Research Area (ERA). This should further successful EU competition on a global scale.

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

At the Community level, two important European instruments to support these policies are the Structural Funds for cohesion policy and the Framework Programme for Research and Technological Development for research policy.

The new challenges are of increasing complexity and call for a more strategic mix of Community, national and regional policies. By ensuring they work together harmoniously, these instruments can help to mobilise research and technological development potential at regional, national and European level. This will contribute to regional economic and social development much more effectively than if they were employed separately.

In order to increase the effectiveness of European policies, it is important to coordinate the use of the Structural Funds and the Framework Programme for Research, enhancing synergy between these instruments.

3 - Funding of Research and Innovation

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

In this process, research and innovation will serve as the foundations to economic development and job creation. Advancements in science are equally crucial to the improvement of our quality of life as this includes such things as good health and air and water quality. We cannot achieve these goals without a properly weighted budget that promotes the distinct advantages of research at European level.

In this respect, it is necessary to increase the share of the funding that is attributed to research and innovation within the overall EU budget. This can be done in a combination of the following:

- * an increase in funding *for the framework programme (FP)*;

- * increasing the share devoted to research and innovation *within the structural funds (SF)*.

4 – The European Added Value of Research

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

Dealing with the complexity of most of the scientific challenges we currently face requires critical mass and access to expensive equipment, something that is better performed at European level. Indeed, the added value of European scientific programmes has been very widely recognised due to the added momentum and economy of scale that programmes at this level achieve.

5 – Excellence, Stairway to Excellence and Capacity Building

A larger budget will enable us to promote excellence at a European level, something that can only enhance the effectiveness of the future programme. What is more, in itself, the sheer volume that working at European level entails actively promotes excellence. This is because a whole series of proposals and results are evaluated across the EU and not only nationally or regionally.

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

If it is important to encourage synergy between the two, it is equally as important to maintain a clear distinction between the Framework Programme FP and the Structural Funds.

On the one hand, *the Framework Programme FP* should above all be concerned with:

* **Excellence.** Fortunately, there are a number of outstanding and well-established research institutes across Europe.

At the same time, it is also important that we encourage **the first sprouts of excellence** within the new programme:

* **Stairway to excellence.** This entails encouraging the participation of small units of embryonic excellence, such as small research groups and highly innovative start ups.

On the other hand, *the Structural Funds SP* should be above all devoted to:

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

* **Capacity building.** This supposes creating the necessary infrastructure and human resources required by research and innovation across Europe as a whole.

This requires proper design alongside a simple, flexible structure and an adequate budget.

6 - Concrete Example of Synergy between the FP and SF

In 2004, as Minister for Science, Innovation and Higher Education - in the scope of the mid-term review of the Third Community Support Framework (CSF III) – the author of this report created a new programme named Science and Innovation 2010. Similar programmes exist in some other Member States.

This programme included measures relating to higher education and a strategic reorientation with special focus on supporting a policy of innovation, along with a significant increase in financial means.

The objectives of the Portuguese programme were:

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- Greater convergence between Higher Education and Science, Technology and Innovation.
- Creation of new measures aimed at strengthening relations between, on the one hand, scientific and technological systems and, on the other hand, business structures.
- Enhance scientific and technological input into the political decision-making process
- Further the integration of the Portuguese scientific and technological community into the European research landscape.

New initiatives were promoted:

- Support for mobility of human resources;
- Support for Ph.D. scholarships in the business environment (including promotion of scientific employment etc.);
- Network Extension Technology and Innovation;

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- Demonstration projects and mobilising research and technological development;
- Projects that mobilise scientific and technological development and innovation in public policy;
- Pilot projects for integrated sustainable communities;
- Mobilising local and regional projects - Regions of Knowledge;
- Support for launching science-based companies in emerging areas;
- Support for internationalisation of the scientific system, in particular the participation of Portuguese R&DI in European R&DI:
 - Support Portuguese participation in projects throughout the whole process (preparation of the project, during the project and after the project);
 - The creation of clusters/ critical mass in priority areas of European programs relevant to Portugal;
 - Direct financial support for the preparation of proposals to be submitted to the European R&DI programmes;

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- Co-financing national partners participating in European projects up to a maximum allowed by state aid rules;
- Financing of projects considered good or excellent by European evaluation but not financed due to the limited nature of the European budget;
- Increasing the budget (scientific equipment, laboratory techniques, informatics, science and technology managers) of research groups with good record in international programmes;
- Financing the follow up of European projects (demonstration projects, technological development, valorisation of results, dissemination of results, etc.)

7 - Some Suggestions for Improving Synergy

On the basis of the experience gained from the Portuguese programme, from suggestions made by other members, from parliamentary reports and from the scientific literature in general, it is possible to envisage a set of recommendations.

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

These cover better coordinated use of the Framework Programme for Research and Technological Development (FP) and the Structural Funds (SF) to support R&D. These recommendations have been organised around the structure defined in the CREST report in which the recommendations were divided into six categories. The source/ reference is indicated at the end of each recommendation.

The following recommendations stand out:

A - Develop strategies and strengthen **governance** in the area of "Research, Technological Development and Innovation" (RTDI)

- 1) Develop a specific strategy for coordinated use of FP and SF as part of RTDI strategy. Consider using FP and SF together for research and innovation strategy development (CREST);
- 2) Focus RTDI strategy on selected themes building on the strengths and weaknesses of the territory and bearing in mind development trends indicated by FP and its thematic approach (CREST);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 3) Organise the strategic development of the RTDI system as a learning process: use FP and SF exchange and networking opportunities both at the regional, national and European level (CREST);
- 4) Increase the interoperability between the instruments: design compatible rules and procedures, coherent application formats and evaluation criteria, synchronised road maps and administrative cycles, common entry points (SEG) + synchronise the priority setting through smart specialisation and use common cost definitions and other administrative and financial criteria (European Research Area Committee - ERAC);
- 5) Create a dedicated instrument for RTDI in the Structural Funds that range from collaborative projects to coordination schemes like ERA-NET, with a harmonised selection procedure and implementation (ERAC);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 6) Reduce the matching requirement for Structural Funds investment relevant for R&D compared to other projects (European Research Advisory Board - ERAB);
- 7) Allow the use of Cohesion Funds in other MS/ regions so as to develop, in those regions, specific industrial and technology transfer capabilities from which multiple regions will benefit (SEG);
- 8) Integrate the current FP7 programme "Research Potential" in the Cohesion Funds; substantially increase the budget; maintain 100% funding and offer a centralised management approach for voluntary participation drawing on a common pot and building on current evaluation experience (SEG). This could take the form of a common fund inside the Structural Funds that would be used to allocate funds to R&D cooperation projects - using *juste retour* money - in different regions. (Carvalho *et al* amendment);
- 9) Allow projects to be funded from different sources (SEG);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 10) Further better governance and a concerted public and private effort at European and national levels to reach the Europe 2020 target of 3 % of gross domestic product (GDP) expenditure on R&D (Carvalho *et al* amendment);
- 11) Recommend a technical liaison structure within the Commission to monitor and coordinate synergies for innovation and research and development programmes (Van Nistelrooij's report);
- 12) Implement simplification measures in the structural funds as is already the case in the Framework Programme (eligible rules, lump sums, etc.) (Carvalho *et al* amendment);
- 13) Develop specific evaluation criteria for the assessment of innovative projects, and consider proposing future regulatory incentives for implementing innovation measures (Van Nistelrooij's report);
- 14) Recommend more expertise at regional level regarding applications for funding, administrative and financial

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

procedures, fund management and financial engineering and look into the feasibility of providing further specialist support and ensuring closer cooperation between stakeholders and the structural fund managing authorities (Van Nistelrooij's report).

**B - Strengthen and develop RTDI Infrastructure and
Human Resources**

- 15) Use FP and SF for the development of human resources in research and development by supporting education and training schemes and by improving the education system to better meet the needs of the economy and society (CREST);
- 16) Use both FP and SF to build or upgrade research infrastructures and to connect them at European level. (CREST);
- 17) Ensure that 30% of the Structural Funds go to R&D and research infrastructure (ERAB);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 18) Support – out of the European Social Fund – regional training centres or the training of researchers and project managers (necessary to obtain access to research infrastructure) (ERAB);
- 19) Grant bonuses to less well performing countries – who successfully compete for ERC grants – in order to improve their infrastructure (ERAB);
- 20) Use the Cohesion Funds for the modernisation of universities and research organisations (infrastructure, equipment, human resource development) (SEG);
- 21) Subject large research infrastructures – co-financed by Structural Funds – to higher evaluation by an international peer review board. This which will have a positive effect on the efficient spending of earmarked Structural Funds (Van Nistelrooij's report).

C - Develop RTDI Excellence

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 22) Exploit the impetus provided by FP to cultivate and boost R&D: use FP and SF to promote research excellence (CREST);
- 23) Use FP and SF to improve networking between research institutes, universities, enterprises and other relevant actors whilst fostering the development of clusters and poles (CREST);
- 24) Use SF to promote the scientific, technological, entrepreneurial and managerial capacity of regional actors and thereby increase their capacity to participate in the FP (CREST);
- 25) Grant a "seal of excellence" status to positively evaluated FP7 projects that have not achieved funding because of budgetary limitations on funding from the Structural Funds (Synergies Expert Group-SEG);
- 26) Consider a "performance reserve" that could be used to reward excellent performance in various regions that have

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

successfully implemented research and innovation strategies (SEG);

- 27) Put in place special incentives to encourage researchers to set up partner collaborations with weaker regions; In particular, this should involve the design of a competition for funding new centres of excellence by teams made up of an established internationally recognised research institutes on the one hand and an under-privileged region, on the other (ERAB).

D - Develop R&D cooperation at European and international levels

- 28) Connect the regional or national research systems to international networks and trends in Europe and beyond. Use the potential of FP and SF to achieve more intensively coordinated European-wide R&D cooperation (CREST);
- 29) Integrate the current FP7 programme "Regions of Knowledge" in the Operational Programmes, with a focus

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

on research driven clusters and consider widening the focus to include networking of clusters (SEG);

- 30) Enlarge the condition of funding out of the ERDF from a narrowly defined impact on the regional economy to wider interregional or European economic effects (ITRE secretariat);
- 31) Support KIC co-location centres in convergence regions (SEG);
- 32) Recommend that national and regional funds contribute to the funding of ERC, Marie Curie or collaborative projects that meet the criteria of excellence but cannot be funded due to lack of European funds (Carvalho *et al* amendment);
- 33) Recommend that the Commission analyse the possibility of setting up an all-European common fund financed by the structural funds to promote collaborative European research (Carvalho *et al* amendment);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 34) Recommend national support to participants in European projects throughout the whole process (preparation of the project, during the project and after the project) (Portuguese action plan);
- 35) The creation of clusters/ critical mass in priority areas of European programs (Portuguese action plan);
- 36) Direct financial support for the preparation of proposals to be submitted to the European R&DI programmes (Portuguese action plan);
- 37) Co-finance national partners participating in European projects up to a maximum allowed by the state aids (Portuguese action plan);
- 38) Increase the financing (scientific equipment, laboratory techniques, informatics, science and technology managers) of research groups with a good record in international programmes (Portuguese action plan);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 39) Finance the follow up of European projects (demonstration projects, technological development, valorisation of results, dissemination of results, etc.) (Portuguese action plan).

E - Strengthen the exploitation and economic and social valorisation of R&D results

- 40) Use FP and SF for valorising research results, achieving an easy and open access to knowledge and transferring the knowledge produced under FP into economic or societal use. (CREST);
- 41) Use FP and SF to strengthen the role of SMEs in research and development and their capacities to exploit knowledge. (CREST);
- 42) Use FP and SF to encourage the involvement of researchers in development activities and business creation. (CREST);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 43) Promote the transfer of personnel from academia to companies and vice versa alongside encouraging IPR exploitation and the setting up of new research and knowledge-based enterprises (CREST);
- 44) Include – in the "return on investment" assessment of the Structural Funds – an appreciation of the intangible assets associated with research. This includes human capital, the attraction of excellent research groups, specialist knowledge etc.). This is something that will enable fairer evaluation of the difference between research investment and "hard infrastructure" investment (ERAB).

F - Improve communication and information

- 45) Make sure that actors involved in delivering FP and SF know about the opportunities offered by the other instruments. Support communication and create interfaces between the two communities (CREST);

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 46) Make sure that information on FP and SF is available and easily accessible for the potential applicants of both instruments. Be aware of different needs depending on the type of the possible beneficiaries i.e. research institutes, SME, large companies, etc. (CREST);
- 47) Recommend the creation of a “virtual creativity network” that would be open to all (businesses, local and regional authorities, central public authorities, the private sector and citizens). It might also provide advice, assistance and access to venture capital and technical services. A virtual network offers the additional advantage of giving the inhabitants of islands, outlying regions, rural areas, mountain areas and sparsely populated areas easier access to expert advice, education and information, business support and financial guidance (Van Nistelrooij’s report).

8 - Conclusion

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

The ultimate goal is to make a contribution to the legislative process and to on going parliamentary work in the area of research and innovation with a particular emphasis on creating maximum synergy between the Framework Programme and the Structural Funds. The above report brings together some of the author's previous experience with a number of recommendations found in a wide variety of different sources (see below). It is hoped that members and, indeed, any other stakeholders with an interest in the field will be able to attend a workshop to be held in October. This workshop will allow us, hopefully, to pool our ideas and pull together in the same direction. A final paper will be published shortly after the workshop.

9 - References/sources

- Communication from the Commission Competitive European Regions through Research and Innovation - A contribution to more growth and more and better jobs, 16.8.2007

**Towards Greater Synergy between Research
Framework Programme and Structural Funds**
Maria da Graça Carvalho

- 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, Committee on Regional Development, Rapporteur: Lambert van Nistelrooij, 4.5.2010
- CREST (European Union Scientific and Technical Research Committee) Guidelines on Coordinating the Research Framework Programme and the Structural Funds to support research and development, May 2007
- Amendments to Marisa Report, Green Paper: From challenges to opportunities: towards a common strategic framework for EU research and innovation funding, PE464.836 – – 2011/2107(INI), 14/06/2011
- SEG - Synergies Expert Group
- ERAC - European Research Area Committee
- SCIENCE AND INNOVATION - The Portuguese Action Plan for 2010, September 2004

DRAFT DOCUMENT

**Towards Greater Synergy between Research
Framework Programme and Structural Funds
Maria da Graça Carvalho**