

Opinion of the European Economic and Social Committee on the ‘Green paper — From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation Funding’

COM(2011) 48 final

(2011/C 318/20)

Rapporteur: **Mr WOLF**

Co-rapporteur: **Mr SVENSSON**

On 9 February 2011 the European Commission decided to consult the European Economic and Social Committee, under Article 304 of the Treaty on the Functioning of the European Union, on the

Green paper — From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation Funding

COM(2011) 48 final.

The Section for the Single Market, Production and Consumption, which was responsible for preparing the Committee’s work on the subject, adopted its opinion on 23 June 2011.

At its 473rd plenary session, held on 13 and 14 July 2011 (meeting of 13 July), the European Economic and Social Committee adopted the following opinion by 122 votes in favour, with 5 abstentions.

1. Summary and recommendations

1.1 While welcoming the Commission green paper and the goals it formulates, while confirming previous opinions on the matter, and referring to the report of the expert group on the interim evaluation of the Seventh Framework Programme, the Committee recommends that the European Commission should in particular:

1.1.1 develop an integrated strategy for research and innovation taking additional structural measures within the Commission and the consultative bodies that support it, while preserving their individual identity and specific working conditions;

1.1.2 finally raise the future budget for research and innovation to the level in the overall EU budget that truly reflects their stated importance and key role within the Europe 2020 strategy and the leverage they exert in stimulating and integrating the required Member State support policies;

1.1.3 simplify the required administrative procedures, apply more flexibility and speed in the decision processes, and adapt the expertise and mandate of the Commission officers accordingly;

1.1.4 concentrate on transnational tasks – such as collaborative research in particular – which provide European added value through their crossborder pooling of resources and expertise;

1.1.5 target structural funds to as yet under-represented regions in order to build up the excellence base and the

structures needed there, and to improve connections between the Structural Funds and the Framework Programme;

1.1.6 support the development of ‘key enabling technologies’, without which the challenge of global competition cannot be met nor the major societal themes successfully addressed;

1.1.7 assign 20 % of the total FP8 budget to that part of the programme which is governed by the European Research Council;

1.1.8 support construction and maintenance of large R&D infrastructures (ESFRI list);

1.1.9 support innovations to their full scope, including social, economic, workplace and ‘creative industry’ innovations;

1.1.10 improve the rules for support to SMEs and micro-companies to ease their access to and participation in the support programmes and their instruments;

1.1.11 establish and develop a risk capital framework, with easy access in particular for SMEs, and extend and adapt the Risk-Sharing Finance Facility to this end;

1.1.12 reconsider the role of state aid, public procurement and competition laws in view of their effect on the full innovation process, on establishing specialized expertise and on public-private partnerships;

1.2 Moreover, the Committee appeals to the Member States to fulfil their essential part of the Europe 2020 strategy by investing more – even at a time of budgetary constraints – in education (especially universities), R&D and innovation, and finally reaching or preferably exceeding the famous 3 % R&D goal, which dates back to the Lisbon Strategy.

2. Gist of the Communication

2.1 The purpose of the green paper is to stimulate public discussion on the main points that will play a role in future EU funding programmes for research and innovation.

2.2 The Commission proposes to strive for improvements in the following areas:

- Clarifying objectives and how they are implemented
- Reducing complexity
- Increasing added value and leverage and avoiding duplication and fragmentation
- Simplifying participation
- Broadening participation in EU programmes – increased accessibility
- Increasing the competitiveness and societal impact from EU support.

2.3 The Commission wants to develop a common strategy covering all relevant EU research and innovation funding currently provided through the FP7, CIP and EU innovation initiatives such as the EIT.

2.4 The green paper asks 27 specific questions, which deal with the following thematic areas:

- Working together to deliver on Europe 2020
- Tackling societal challenges
- Strengthening competitiveness
- Strengthening Europe's science base and the European Research Area.

2.5 The current financing of those programme components in the present programming period (2007–2013) includes:

- 7th RTD Framework Programme: EUR 53.3 billion
- CIP - Competitiveness and Innovation Framework Programme: EUR 3.6 billion
- EIT - European institute of innovation and technology: EUR 309 million
- Cohesion policy: approx. EUR 86 billion (almost 25 % of the total budget of the Structural Funds).

3. General comments

3.1 In the light of the Council decisions of 26 November 2010 and 4 February 2011 and the earlier Committee opinions referred to below, the Committee welcomes and supports the green paper published by the Commission and the intention to make the full range of EU instruments for research and innovation work together in a Common Strategic Framework. A heavyweight and effective EU support programme that meets these goals is a critical prerequisite for boosting Europe's competitiveness, safeguarding its prosperity and social achievements, and coping with the grand societal challenges.

3.2 However, this means in the first place that these priority aims are allocated the right and sufficient proportion of the total future EU budget. The future budget to underpin research and innovation has to be brought up the level within the overall EU budget that truly reflects their stated importance and weight within the Europe 2020 strategy and the leverage they exert in stimulating and integrating the required Member State support policies.

3.3 The title of the Committee's exploratory opinion *Unlocking and strengthening Europe's potential for research, development and innovation* ⁽¹⁾, adopted back in 2007, summed up even then the key task for the Europe 2020 strategy. And it is precisely for this purpose that a joint strategy for EU research and innovation funding must be designed.

3.4 However, this does not mean mixing the two categories or making one of them subordinate to the other; rather, it is about making sure that, thanks to a common strategy, research and innovation mutually support and cross-fertilise each other as effectively as possible.

3.5 Accordingly, and based on this premise, the Committee also supports the aims mentioned in point 2.5.

3.6 In recent years, the Committee has issued several further key opinions on these aims and the complex issues relating to them. They include:

- Green Paper on the European Research Area – New Perspectives ⁽²⁾
- Cooperation and transfer of knowledge between research organisations, industry and SMEs – an important prerequisite for innovation ⁽³⁾
- Community legal framework for a European Research Infrastructure (ERIC) ⁽⁴⁾
- Towards joint programming in research: Working together to tackle common challenges more effectively ⁽⁵⁾

⁽¹⁾ OJ C 325, 30. 12. 2006, p. 16.

⁽²⁾ OJ C 44, 16.2.2008, p. 1.

⁽³⁾ OJ C 218, 11.9.2009, p. 8.

⁽⁴⁾ OJ C 182, 4.8.2009, p. 40.

⁽⁵⁾ OJ C 228, 22.9.2009, p. 56.

- A strategic European framework for international science and technology cooperation ⁽⁶⁾
- Moving the ICT frontiers – a strategy for research on future and emerging technologies in Europe ⁽⁷⁾
- Reviewing Community innovation policy in a changing world ⁽⁸⁾
- Investing in the Development of Low Carbon Technologies (SET Plan) ⁽⁹⁾
- Developing a common strategy for key enabling technologies in the EU ⁽¹⁰⁾
- Simplifying the implementation of the research framework programmes ⁽¹¹⁾
- Europe 2020 Flagship Initiative: ‘Innovation Union’ ⁽¹²⁾
- Innovative workplaces as a source of productivity and quality jobs ⁽¹³⁾
- Interim Evaluation of the Seventh Framework Programme for Research, Technological Development and Demonstration ⁽¹⁴⁾.

These opinions at the time made concrete recommendations regarding most of the goals and questions mentioned in the green paper. **For this reason, the Committee explicitly refers to these previous opinions, reaffirms their content and requests that they be considered as a part of this opinion.** Referring also to the report of the expert group on the interim evaluation of the Seventh Framework Programme ⁽¹⁵⁾, some comments that reiterate or complement the statements made in those previous opinions are set out below.

3.7 The list of questions included in the green paper and discussed in chapter 4 of this opinion gives the impression that the Commission is considering radical changes to the current financing arrangements and priority-setting. The Committee refers to its opinion *Simplifying the implementation of the research Framework Programmes* and firmly underscores its earlier recommendation that the much-needed continuity and

stability of current successful EU funding instruments (emphasising in particular collaborative research) be essentially maintained ⁽¹⁶⁾ and strengthened and not undermined by excessive changes.

3.7.1 Instead, the Common Strategic Framework should be achieved primarily through additional structural measures within the Commission and the consultative bodies that support it. As one of the ways to achieve this, measures under the existing framework programme for research, the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT) should be merged in terms of programmes and administration.

3.7.2 As the Committee has repeatedly emphasised, this additionally requires that the Commission officials, but also the actors in the agencies working for the Commission, who are responsible for each of the programmes be internationally recognised experts in the relevant field on the basis of their own achievements, and have sufficient room for manoeuvre in decision-making and opportunities for initiative so that they can use their expertise and judgement to make this common strategy a success ⁽¹⁷⁾. This aim cannot be achieved – and certainly not exclusively – through narrow, inflexible rules ⁽¹⁸⁾, but rather through stable yet flexible systems combined with expertise and experience.

3.7.3 The Committee has repeatedly emphasised the crucial importance of innovation to the Europe 2020 strategy. However, it also repeats that innovations are not necessarily the outcome of a linear sequence, i.e. first research, then innovation, but derive in a complex process from the *networking and interplay of various initial positions* ⁽¹⁹⁾ and also involve social and societal aspects. This is especially true for service innovations most often driven by new customer needs, and social economy enterprises responding to societal needs. It is also true, for example, for workplace innovations ⁽²⁰⁾, developed or negotiated between the social partners, but equally for innovations in the design and creativity field. The European Disability Strategy 2010–2020 (Commission Communication) is yet another example of an important field for innovation for public and commercial service providers caring for the accessibility of products and services so that also people with disabilities can be fully integrated into EU society.

3.7.4 The Committee also points out that research and science are key cultural elements that characterise the way Europe developed following the Enlightenment. Whilst they are an important prerequisite for innovation, they must also be recognised, preserved and supported as a category of European civilisation and culture of its own. Innovation must not be subsumed to research, nor may research be subsumed to innovation ⁽²¹⁾. That would constitute a cultural impoverishment of fundamental European values.

⁽⁶⁾ OJ C 306, 16.12.2009, p. 13.

⁽⁷⁾ OJ C 255, 22.9.2010, p. 54.

⁽⁸⁾ OJ C 354, 28.12.2010, p. 80.

⁽⁹⁾ OJ C 21, 21.1.2011, p. 49.

⁽¹⁰⁾ OJ C 48, 15.2.2011, p. 112.

⁽¹¹⁾ OJ C 48, 15.2.2011, p. 129.

⁽¹²⁾ OJ C 132, 3.5.2011, p. 39.

⁽¹³⁾ OJ C 132, 3.5.2011, p. 22.

⁽¹⁴⁾ OJ C 218, 23.7.2011, p. 87.

⁽¹⁵⁾ Available online at <http://ec.europa.eu/research/evaluations>.

⁽¹⁶⁾ OJ C 48, 15.2.2011, p. 129, point 3.12.

⁽¹⁷⁾ OJ C 48, 15.2.2011, p. 129, point 3.10.

⁽¹⁸⁾ OJ C 256, 27.10.2007, p. 17, point 6.4.

⁽¹⁹⁾ See footnote 12.

⁽²⁰⁾ OJ C 132, 3.5.2011, p. 22.

⁽²¹⁾ See footnote 12.

3.7.5 One major difference between research and innovation are the different 'ground rules' applicable to stakeholders and working environments ('cultures') in science and research on the one hand and innovation on the other. On this subject, we refer to the opinion *Cooperation and transfer of knowledge between research organisations, industry and SMEs – an important prerequisite for innovation*, which discusses the various aspects⁽²²⁾. Solutions must therefore be sought in the Common Strategic Framework that respect these differences, reflect them and yet make it possible to support the entire innovation process.

3.7.6 It is precisely for this reason that good contacts and the pooling of staff and expertise between the two categories are particularly important and need support. The Committee would draw attention to its opinion on the Interim Evaluation⁽²³⁾, in which it discusses the three proposed funding pillars, namely: Science for knowledge – the researchers set the agenda; Science for competitiveness – industry sets the agenda; and Science for society – civil society actors set the agenda.

3.8 With reference to its earlier comments on the Commission's repeated sweeping assertions about the fragmentation of European research and development, the Committee concedes that there may be examples of such kind of fragmentation, but these do not reflect the general situation. Therefore, the Committee repeats⁽²⁴⁾ that there have long been European – and in many cases even worldwide – links and cooperation networks which are continuously fine-tuning and redefining their boundaries in the interplay between cooperation and competition. These are important processes of self-organisation by the respective stakeholders and their organisations, to which the Commission should finally give proper recognition rather than ignoring them, especially since the R&D Framework Programmes (particularly collaborative research) have for their part significantly contributed to these achievements.

3.9 The Committee also recommends more attention and support be given to the creation of world-class European research and innovation clusters. These represent an attractive self-amplifying network of universities, research institutes and businesses, including the productive connection between the specialist firms themselves that have been set up there. In this connection, the Committee again underscores the need to create more world-class universities within the EU and appeals particularly to the Member States to act more decisively on this.

3.10 The Committee reiterates its recommendation – addressed particularly to the Member States – to facilitate start-ups, improve their resilience and market opportunities and create the environment needed for this (see also point 4.7.1). Less red tape and adequate risk capital are what makes the difference here. While the creation of the Risk-Sharing Finance Facility – set up jointly by the European Commission

and the European Investment Bank – was a good beginning at EU level, major improvement is still needed in access to sufficient risk capital, especially for SMEs.

4. Specific comments

This chapter deals with some of the 27 questions asked by the Commission. They are not repeated here, but are implicitly addressed below.

4.1 Users of EU funding instruments need a well-structured table of contents and a comprehensive handbook, both in printed form and online. In addition, for the sake of maximum continuity, a proper balance should be ensured between tried, tested and successful existing instruments and underlying principles on the one hand, and the fewest possible new approaches on the other.

4.2 The balance between a uniform set of rules and the need for flexibility, including consideration of specific requirements, necessitates, alongside the harmonisation of the rules, complete recognition of national procedures in the joint strategic framework for research and innovation. Concerning working practices within the Commission, the Committee refers to point 3.7.2; officials should, during a period of gaining experience with novel concepts, be given enough room for manoeuvre to be able to use the exceptions, special regulations and/or derogations⁽²⁴⁾ that have yet to be defined, as experience first needs to be gained in this area⁽²⁵⁾. The Committee would also draw attention to its opinion on Simplification⁽²⁶⁾, in which it recommends that an approach based on trust be pursued and a greater margin of error be tolerated.

4.3 In view of the required national and regional funding of research and innovation by the Member States, including their relevant reform programmes, EU funding should concentrate on transnational cooperation, especially collaborative research. By bringing together the expertise and resources of different Member States, collaborative research delivers a clear European added value, provides leverage for Member State support policies and promotes European integration.

4.4 Since excellence has to remain the guiding principle for R&D also within the Europe 2020 strategy, structural funds should be more targeted to regions as yet under-represented in order to build up an excellence base and required structures urgently needed there. In that vein the Committee supports this statement from the Commission: 'In the long term, world class excellence can only thrive in a system in which all researchers across the EU are provided with the means to develop into excellence and eventually compete for the top spots. This requires Member States to pursue ambitious modernisation agendas for their public research base and sustain public funding. EU funding, including through the Cohesion policy Funds, should assist to build up excellence where and as appropriate'.

⁽²²⁾ OJ C 218, 11.9.2009, p. 8, points 4.1 to 4.4.

⁽²³⁾ OJ C 218, 23.7.2011, p. 87.

⁽²⁴⁾ See footnote 12.

⁽²⁵⁾ OJ C 256, 27.10.2007, p. 17, point 6.4.

⁽²⁶⁾ See footnote 11, point 3.6.

4.5 To achieve synergies with the Structural Funds and optimum coordination with the support policy of the Member States, it is crucial to have effective links⁽²⁷⁾ between the future common strategic framework for research and innovation funding and the future common strategic framework for cohesion (question 8). 'Smart specialisation' should be the guiding principle for the development of regional strategies.

4.6 In order to support the whole innovation cycle more effectively, the Committee calls for the rules on state aid, budgets, procurement and competition, which could prove an obstacle⁽²⁸⁾ to this goal, to be thoroughly reviewed in collaboration with the relevant stakeholders (see question 19). This is because of the balance and/or possible conflict between competition law and promoting innovation. For this reason, competition, state-aid and public procurement law should not be drafted and implemented in such a way that it becomes an obstacle to innovation; there may even be a need for reforms. Innovations sometimes also need to be protected so that they are not acquired by competitors wishing to block the innovation process.

4.6.1 The innovation process from publicly funded research to marketing requires, where applicable, long-term, established partnerships, which are difficult to achieve under the current rules (e.g. disclosure, intellectual property, rules on state aid and public procurement) (question 20). New approaches and rules should be sought in this area so as to resolve the possible conflict between 'more innovation' and 'more publicity and fairer competition'. Since pioneering or fundamental research is generally not affected by this conflict of interest, a sufficient proportion of this kind of research could make a significant contribution to this aim (see also point 4.7.3).

4.7 Another key question raised by the Commission relates to the distribution of funding between:

- SMEs, social economy enterprises and large businesses corporations;
- fundamental research and research aimed at societal objectives;
- research and the further innovation process;
- technical, service, societal and business innovations;
- top-down and bottom-up.

Since no comments have been made on this so far in this opinion, the Committee would make the following suggestions:

4.7.1 For a wide variety of reasons, SMEs – and particularly the smaller enterprises – need special consideration when designing the thematic areas to be funded and the instruments to be used⁽²⁹⁾:

- SMEs should have the possibility of joining programmes for a period which is suitable for the company (as in the current FET actions).
- Special attention and more relaxed entry criteria should be given to young companies and micro-companies (fewer than 10 employees) with great innovation potential.
- Funds should be used to support innovation processes in their entirety (especially important for entrepreneurs).
- Increased focus on service-innovations.
- Moderators/facilitators and easier access will be needed to help smaller companies to take benefit from the innovation programmes – the Enterprise Europe Network could play an important role in this context.
- Social economy enterprises must be included when funding models are designed.

4.7.2 The big breakthroughs to fundamentally new knowledge – and to the resulting modern innovations such as the internet, GPS, magnetic resonance imaging, lasers, computers, nanotechnology and so on – were the result of fundamental research and the following applied research. Basic and applied research are the essential seedbeds for future innovation⁽³⁰⁾. The Committee has also addressed the question of how these 'seedbeds' can reach the organisations that can nourish and develop the innovations⁽³¹⁾.

4.7.3 For this reason, the Committee recommends that measures supported by the European Research Council (ERC) be boosted in the eighth R&D framework programme to account for at least 20 % of total support and that sufficient weight also be given to fundamental issues in the other parts of the programme. The ERC has proved itself outstanding in supporting new ideas and top-flight research. In its future procedures, it should also pay more attention to the careers of young researchers so that they remain with European research or can be attracted back to it.

4.7.4 As the core of the current Cooperation⁽³²⁾ programme, collaborative research is the main pillar of the current seventh R&D framework programme (and its predecessors) and has an excellent track record. It is the key funding instrument for joining up research activities in the Member States and preventing fragmentation. Its significance in the future common strategic framework should therefore be maintained and strengthened without fail⁽³³⁾. This is all the more true since it is collaborative research in particular

⁽²⁷⁾ See also point 3.7.1.

⁽²⁸⁾ OJ C 218, 11.9.2009, p. 8, point 4.8.

⁽²⁹⁾ See footnote 12, point 4.10.

⁽³⁰⁾ OJ C 354, 28.12.2010, p. 80, point 3.2.3.

⁽³¹⁾ See footnote 3.

⁽³²⁾ Notwithstanding this, new concepts could be used in the awaited proposal for the eighth R&D framework programme to refer to the measures that have hitherto been described as 'collaborative research' and 'cooperation'.

⁽³³⁾ See also point 4.3 here.

that is aimed at resolving the grand societal challenges (questions 9 and 11). It also makes a significant contribution to developing the key technologies that are crucial to Europe's global competitiveness.

4.7.5 All in all, support for bottom-up projects (see also 4.7.10) should be given a bigger role (questions 9 and 10) so as to give more room to innovative ideas that are not envisaged in the thematic list or, for example, are not being developed by existing industries (see also point 3.7.6 – industry sets the agenda): after all, it was not the ship-building industry that invented the aeroplane.

4.7.6 While top-down approaches result from a strategic perspective of the leading decision-makers based on their present knowledge, bottom-up approaches use the creative potential of scientists, engineers and other stakeholders working directly on the objects to be investigated or improved. Even where the major societal challenges are concerned, more emphasis should be placed on ideas and proposals emerging from the broad knowledge community rather than only on directives from above. '[...] Innovation policy should be targeted at organisational and employee-driven innovations in the workplace ... (34)'.

4.7.7 The balance needed between bottom-up and top-down first requires more differentiation: even within specified thematic areas (e.g. key technologies or grand societal challenges), a sufficient proportion of bottom-up processes is needed to allow sufficient scope for new ideas for solutions that were not proposed from the top down. Beyond this, however, a chance must be given to entirely new approaches for issues

and problems that may not immediately have been recognised. Whilst such approaches can already be put into practice in the Ideas programme, they should also be given significantly more scope in collaborative research, as is currently happening successfully in the Future and Emerging Technologies programme of the ICT theme, for example. For this, greater flexibility and leeway is needed for the officials concerned.

4.7.8 With regard to European R&D infrastructure (ESFRI list), the Committee repeats its recommendation (35) that these be supported through contributions to construction and maintenance. The People programme, which includes, for example, the Marie Curie actions (question 23) has also amply proved its worth and should therefore be retained in full or even expanded.

4.7.9 Given the significant problems entailed in a common European economic, monetary and financial policy, which are currently a matter of keen political debate, and the related macroeconomic issues, the Committee recommends that sufficient weight in the support programmes falls to research in this field.

4.7.10 With regard to the questions going beyond R&D (question 17), the Committee above all recommends drawing on the experience with the instruments that have just been set up for this purpose, but not creating yet more new instruments (36). Regarding indicators and innovation partnerships, see the opinion on the Innovation Union (37). Regarding capitalisation, the Committee refers to the same opinion (38).

Brussels, 13 July 2011.

The President
of the European Economic and Social Committee
Staffan NILSSON

(34) OJ C 132, 3.5.2011, p. 5.

(35) Opinion of the European Economic and Social Committee on the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: *Europe 2020 Flagship Initiative - Innovation Union*, OJ C 132, 3.5.2011, point 3.8.4.

(36) See also footnote 12.

(37) See footnote 12, points 4.2 and 4.4.

(38) See footnote 12, point 4.8.