

**Written response from The Danish Council for Research Policy on the Green Paper “From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation Funding”**

**The Danish Council for  
Research Policy**

19 May 2011

**Danish Agency for Science  
Technology and Innovation**

Bredgade 40  
DK-1260 Copenhagen  
Phone +45 3544 6200  
Fax +45 3544 6201  
E-mail [fi@fi.dk](mailto:fi@fi.dk)  
Website [www.fi.dk](http://www.fi.dk)  
CVR-no. 1991 8440

Phone +45 7231 8237  
Fax +45 3544 6201  
E-mail [dfr@fi.dk](mailto:dfr@fi.dk)

Ref. 11-108880  
Doc id. 1874462  
Page 1/1

The Danish Council for Research Policy gives the Minister for Science, Technology and Innovation research policy advice. The chair and eight members of the Council are appointed by the minister.

The Danish Parliament and any minister can also obtain research-related advice from the Council. This advice is given upon request or upon the initiative of the Council.

The Council's responsibilities generally include advice on Danish and international research policy for the benefit of society.

The Danish Council for Research Policy welcomes the Commission's Green Paper proposing a Common Strategic Framework (CSF) to supersede a fragmented set of programmes, schemes and initiatives established to support and promote European research, development and innovation as well as research training. The vision of integrating the Framework Programme for research, technological development and demonstration activities (FP), the Competitiveness and Innovation Framework Programme (CIP), the European Institute of Innovation and Technology (EIT), and the Cohesion policies is a good approach, and it is timely.

It is, moreover, an opportunity to scrutinize the whole system in a more coherent manner with a view to seeking efficient, better integrated, simpler and more transparent processes for supporting research, education, development and innovation. Today, a variety of activities are supported within the different schemes and programmes through a plurality of instruments. Integrating the relevant programmes and systems will allow for significant streamlining of the European research and innovation systems, thus ensuring fewer and more efficient schemes and initiatives as well as more significant and recognisable profiles.

This opportunity is unique. It would be a failure for European R & D if we did not take advantage of the moment. We must prevent the CSF from becoming only a common name for the continuation of the too large number of uncoordinated EU-funded schemes and activities. This is a window of opportunity and the

moment when it may be possible to downsize the number of activities to ensure that the number of similar and even overlapping activities is reduced. Moreover, for initiatives to be implemented at European level, they should have a European added value. The target groups of programmes, schemes and initiatives must be clearly defined and the initiatives must be designed to meet the needs of the target groups. The clear and overall aim of the activities supported must be that they benefit Europe in a global knowledge economy. Finally, it must be ensured that the CSF as a whole is cost effective. Programmes, schemes and initiatives must be implemented in an economically responsible manner also taking into account the time and resources spent by potential applicants.

The Danish Council for Research Policy has discussed the potential and possibilities of establishing a new CSF. The Council here presents some views and remarks on the preconditions for a successful CSF. This paper does not intend to provide answers to all the questions posed by the Commission Green Paper. This paper pinpoints, however, some of the key aspects which must be taken into account when designing the future CSF.

Danish Agency for Science  
Technology and Innovation

### **Simplification and a new start**

There is an urgent need to redefine and redesign the European research and innovation systems. Today, a conglomerate of instruments, programmes, and schemes as well as organisations makes up a European research and innovation system. The decision to let a CSF supersede FP7, CIP, EIT and the Cohesion policy is a good start. It is, however, important for the successful transition of instruments into a CSF that the future CSF involves: a) a new mindset surrounding the support of research and innovation in Europe, b) a profound simplification exercise with regard to existing instruments, and c) a broad perspective on the actors in focus, implying that the process of simplification is carried through bearing in mind other European programmes and instruments as well as the level of transnational instruments.

Page 2/2

#### *A new mindset*

The European research and innovation systems are presently fragmented and lack integration at European level. The new CSF must promote much better integration of R & D. A new mindset surrounding the support of European R & D should involve a truly integrated approach. Instruments within the future CSF must address this integration rather than continue with a separate set of instruments for research and innovation respectively. However, the CSF outlined in the Green Paper is not a sufficient approach. The whole of the European Research Area should be redesigned as a European Research and Innovation Area integrating all involved actors in one approach. Today, innovation takes place in global networks. Limited and rigid framework conditions are not suited to underpin such processes. Framework conditions that only target either innovation or research or are limited to specific geographical areas are not in line with the needs of modern, global R & D.

The need for a new mindset also applies to the way the instruments supporting present research and innovation in the EU are implemented. Research and innovation projects are by nature often characterised by uncertainty and unpredictable developments. Research is after all a risky activity. Unfortunately, it seems that in today's EU funding for R & D there is little room for unexpected path-

breaking research, and the willingness to take risks is very limited. EU funding schemes seem to be characterised by a “consultancy culture” that values milestones and progress reports higher than the real scientific outputs, or the real needs in the process of research and innovation. The administration and monitoring of the programmes has become much too rigid and detailed, e.g. in the framework programmes, resulting in less attractive programmes and schemes due to rigid and inflexible project reporting requirements. The present requirements are counterproductive to the objective of supporting new and forefront R & D where a willingness to take risks is necessary. The CSF must abandon an administrative culture of control and micromanagement of programmes and research projects. Instead, the CSF must advance an administrative culture based on flexibility and trust in researchers and, above all, a culture that supports far more risk-oriented research endeavours of a potentially path-breaking nature.

This new mindset is a precondition for the success of future R & D funding in the EU. If this is not taken seriously, the CSF will not be sufficiently attractive to the best talents from both public research and industry. In the long run, the result will be a Europe unable to compete in the global knowledge economy.

Danish Agency for Science  
Technology and Innovation

#### *Downsize the number of instruments*

The CSF provides a welcome opportunity for downsizing the number of activities, thereby ensuring that the number of similar and even overlapping activities is reduced. Downsizing should be carried through with regard to the instruments that will be part of the future CSF, but it is just as important that activities supported within other areas of ERA are reviewed with an eye to effectiveness and simplification. Furthermore, the design of the future CSF should consider seeking complementarities and avoiding overlap with other fundamentally important organisations and initiatives in Europe which are of a more inter-governmental nature, like for example, EUREKA, EMBL, ESA, CERN, and ESO. The European Union’s CSF should be designed with a wide European perspective in mind.

Page 3/3

#### *Simplification and a need for greater efficiency*

The FP7 interim evaluation clearly showed that there is a need for simplification at all levels of the FP. Transparency and simplification should be implemented as basic principles at all levels of the CSF. The interim evaluation of FP7 indicates with all clarity the urgency for simplifying virtually all the administrative aspects of FP7. With regard to the CSF, the main risk concerning performance is that bureaucracy will deter good researchers from both academia and industry from applying for funding. Lack of relevance and attractiveness could become a paramount problem of the CSF if simplification is not taken very seriously.

There is a need for programmes to be organised with more simplicity and an eye for the target group(s). It is immensely difficult for one programme to have a narrow thematic focus and at the same time incorporate a multiplicity of interests and stakeholders.

Today, the applicants of some programmes within FP7 have to meet a much too detailed level of requirements in order to be eligible for grants. Application processes become much too complicated and lengthy.

Application procedures should be simplified. Many applicants find it necessary to acquire professional assistance when wanting to submit an application for the framework programme. This ought not to be necessary. It must be ensured that the CSF does, in fact, provide a framework where excellent R & D is supported. The CSF should not indirectly promote a practice where funds are spent on consultancies that make a living by writing extended applications.

Some initiatives incorporate too many assessment requirements as well as a variety of demands concerning participation in the projects, partners, etc. The result is a negative perception of the initiatives as being too bureaucratic and complicated with a stronger focus on the establishment of the project than on the output and impact of the project. Moreover, the Cooperation programme in FP7 as well as other thematic initiatives contain a number of programmes which present bottom-up academic approaches, problem-related thematic approaches, collaboration between public-private enterprises and industry approaches, Grand Societal Challenges, and innovation. This myriad of interests and stakeholders increases the complexity of programmes.

We have experienced that “time-to-contract” is much too long in the framework programmes. The CSF must take into consideration the need for significant reduction in time-to-contract. If time-to-contract is not shortened satisfactorily throughout the CSF, it will not be sufficiently attractive and effective compared to other R & D schemes and instruments on a global scale.

Within recent years and in line with the revitalisation of the ERA, a number of transnational instruments have emerged e.g. ERAnet and ERAnet plus, but also the Joint Programming initiative. In the design of the future CSF, the connection to and cooperation with these transnational instruments should also be taken into account. This also implies ensuring that parallel and overlapping instruments are merged or discontinued. In the design of the CSF emerging transnational instruments should also be taken into consideration.

### **Global competitiveness**

It is crucial to support excellent R & D in Europe. Promoting the very best quality is a precondition for succeeding globally. Global competition will only grow in intensity. Therefore, we have to promote excellence, give priority to our positions of strength and fertilise what is good. We should support the areas where Europe has a competitive advantage, regardless of whether it is within academia or within private enterprise.

However, it is apparent that not all European R & D is excellent. Yet, it is of the utmost importance not to lower the demands on quality. Competition in the global economy is immensely strong and other regions have a much stronger commitment to and investment profile within R & D. To succeed, therefore, Europe must strive for excellence while simultaneously ensuring that the CSF enhances capacity building that can underpin the global position of Europe. It is important to create the right framework conditions and promote investments in capacity building in order to ensure that, in the future, a much larger part of European R & D will meet the standards of world class excellence. This is the only way forward if European competitiveness is to be strengthened.

In order to ensure the best possible position for European R & D, the CSF must be open to global participation at all levels. Europe must do much better in the field of science, technology and innovation, and global participation is an important aspect of improving global competitiveness. We must ensure that Europe is open to the world. We cannot do so if Europe closes around itself. All programmes, initiatives and schemes must be valued according to their capacity to promote Europe's position in the global knowledge economy and global participation.

### **The design of a future CSF**

The Green Paper approaches a future CSF by outlining three perspectives or target groups for programmes, schemes and initiatives. This is a welcome new approach. The present complexity of programmes, schemes and initiatives under FP7, CIP, and EIT as well as the Cohesion policy altogether involve a plurality of target groups, requirements for participation, etc. The result is overlapping and parallel initiatives, too much bureaucracy, and initiatives where the benefits of participating in some of the projects seem questionable to a number of partners.

The CSF should be designed with a long-time perspective in mind and aim at ensuring stability, the possibility for long-term planning, and recognisable instruments.

The new perspective in the CSF involves three different approaches applicable to all initiatives: 1) tackling societal challenges with a focus on Grand Societal Challenges; 2) strengthening competitiveness including a stronger industry/private enterprise ownership of programmes and initiatives; and 3) strengthening Europe's science base through a strong ERC while also focusing on improving the level of excellence in the whole of Europe.

The Danish Council for Research Policy supports the reorganisation of all the EU-level funding of R & D within these three lines. Some instruments, however, have multi-level target groups, and they should be designed with a maximum of flexibility allowing them to be used for different purposes. This could e.g. be in connection with other instruments or programmes.

The CSF should consist of a set of narrow and well-defined instruments designed in close cooperation with the specific target group and in accordance with the specific needs of the groups. Of course, all instruments and schemes within each approach should facilitate the cooperation between sectors, but the very rationale of each approach should be defined with a clear focus on the overall purpose and on the targeted group.

### *Strengthening Europe's science base and the focus on excellence*

Funding science in open European competition and thereby supporting the very best of European researchers is of the utmost importance for Europe's position in the global knowledge economy. Quality assessment criteria should be in line with the best scientific standards. Funding should be given to curiosity-driven research, in a clear bottom-up manner supporting the very best ideas. To support the striving for excellence in all parts of European R & D, capacity building must be a central part of the CSF. Research Infrastructure and Marie Curie Initial

Training Networks (ITN) are instruments which may be directly used as capacity building initiatives.

There are areas of research in Europe where there are specific challenges related to modernisation and to promoting the internationalisation of the European research base. The present FP7 Cooperation programme contains both programmes that are defined by their research field as well as areas defined as societal challenges. It is important that the CSF can provide a framework for the development of the European research and science base. One area to bear in mind within the present FP7 is the “Socio-economic Sciences and Humanities”, where there is a need to continue this European effort in the CSF.

#### *Strengthening competitiveness and growth*

Today, there is a vast variety of programmes, schemes and instruments established to promote public-private partnership. Moreover, there are programmes where the participation of private enterprises is a condition in order to obtain funding. To strengthen competitiveness and growth in Europe, these programmes and schemes should to a large degree be defined by industry and private enterprises. Programmes should aim to focus on the development of knowledge to the benefit of growth in Europe. Parts of the present Cooperation programme, EIT and the JTIs could be placed here. Collaboration with EUREKA could also be viewed as a part of this approach. From the FP7 Cooperation programme the themes of Food, Agriculture and Fisheries, and Biotechnology, the ICT programme, the Nanoscience and materials and new production technologies programme as well as transport could all be placed here.

Moreover, demonstration and development programmes as well as the recently launched risk-sharing facility (RSFF), all of them with a focus close to the market, must be incorporated within this approach.

Furthermore, programmes to support innovation in Europe (including non-technological innovation) should also be incorporated in this approach. These programmes involve a variety of sectors with focus on innovation in Europe, the service sector, and the need for innovation for a better and more efficient public sector, etc.

Finally, the CSF must facilitate the inclusion of Small and Medium-sized Enterprises, as they represent approximately 90% of all firms in Europe and have fantastic innovative potential, technology-based or not.

#### *Tackling societal challenges*

##### *Strategic projects based on Grand Challenges*

Grand Societal Challenges have been on the political agenda for some time. Both at national level and at EU level the discussions show that, in the future, we will face some significant challenges related to our way of living.

The Danish Council for Research Policy supports the idea that solutions to the Grand Societal Challenges should be found in international cooperation. Hence the CFS is the right arena to support R & D that focuses on finding solutions to these challenges.

At present, some of the often highlighted themes of Grand Societal Challenges are supported through the present FP7, e.g. “environment” or “energy”. Furthermore, the Joint Programme initiative defines Grand Challenges, Innovation Union sets out platforms within areas defined as Grand Challenges, and there is also an initiative of forward-looking activities going on.

The CSF should have a focus on Grand Challenges. However, addressing Grand Societal Challenges requires more than simply defining a topic. When distributing funding in order to address Grand Challenges, it will be necessary to adopt a global perspective as well as an interdisciplinary approach. This means that schemes related to Grand Challenges should not have demands related to the involvement of private enterprise. Addressing Grand Challenges may benefit growth, but it should not be a requirement.

Only a limited number of Grand Challenges should be selected and their priority ensured. We should be careful not to define new Grand Challenges all the time, but rather keep it to a few with a significant momentum. Grand Challenges may be defined within a number of subject areas, and there should be no restraints in the shape of public-private partnership demands or any rigidly defined requirements regarding participation constellations. There may be broader reasons for defining Grand Challenges. It should, however, be a prerequisite that the Grand Challenges are exactly defined at an overall level with an eye for the global perspective as well as an interdisciplinary approach.

#### *Successful instruments*

Taking a point of departure in the present FP7 and its interim evaluation, the Danish Council for Research Policy would like to support the advancement of three instruments in the CSF.

- a) The European Research Council (ERC) has proven itself as a recognised and highly valued body within the European Research Area. With a clear aim of supporting the best European research environments through transparent processes and open competition, the ERC has a limited and recognised toolbox and well-identified target groups. The ERC is recognised for its overall effectiveness and for being a good management model. The Danish Council for Research Policy recommends that in the future CSF the ERC should receive an increased share of funding in order to be able to support more highly qualified researchers.

The ERC is already globally recognised as a brand of world class research funding. This brand is of great importance for European R & D. The ERC shows a clear European added value because it ensures competition at a European level and promotes European excellence through global recognition.

- b) Large research infrastructures of the best international standard are also of great importance. In order to improve the competitiveness of European R & D globally, the establishment, running, and cooperation on large research infrastructures is of major significance. A future CSF should provide a much greater level of support to the establishment of large European research infrastructures while also ensuring access to European and globally important re-

search infrastructures. Moreover, new breakthrough research and technology is expected to come out of these major research infrastructures in the coming years. Hence, research infrastructures are a means to attracting the best talents as well as public and private funding to Europe.

Strengthening and advancing research infrastructures has a clear European added value as these facilities often have a scope that prevents many Member States from taking on investments and running costs themselves. Joint European investments in research infrastructure should ensure efficient investments and prevent the establishment of parallel facilities. Research infrastructures will, in the future, provide an excellent underlying basis for ground-breaking science, forefront public-private partnerships, excellent research training environments, and mobility.

Furthermore, research infrastructures are of key importance because they underpin capacity building initiatives as well as the striving for excellence in Europe. Cohesion policies and Structural funds should be used in a clear connection with the CSF and support the striving for excellence and strong European competitiveness. In this connection, research infrastructure should involve more than the very large European research infrastructures which are presently accepted as part of ESFRI's roadmap.

Danish Agency for Science  
Technology and Innovation

Page 8/8

- c) The Marie Curie Actions have one very important scheme. The European research training programmes Initial Training Networks (ITN) should, in the future, be the prioritised part of the Marie Curie Actions. This scheme underpins high-quality research training and provides a clear European added value by training future European researchers in international teams. ITNs constitute a unique opportunity for focused international research training. Therefore, exactly this scheme should be given a higher priority in the CSF. Moreover, ITNs are characterised by a flexibility that makes it possible to use the scheme in classic academic research environments as well as in combination with public and private enterprises and other types of research institutions.

In a future CSF, ITNs could be implemented on the basis of independent applications as today. However, ITNs could also be used as an add-on to other types of initiatives, e.g. in connection or combination with infrastructures or large R & D projects or perhaps as a tool in the strategic international cooperation with BRICS countries (Brazil, Russia, India, China and South Africa).

The Danish Council for Research Policy recommends that in a future CSF the funding for the ITN scheme should be increased significantly while ensuring a flexible framework that allows the use of ITNs covering the whole range of R & D as a stand-alone initiative as well as in combination with other national or EU initiatives.

Yours sincerely

Claus Hviid Christensen  
Chair of the Danish Council for Research Policy