



**- DLR position paper -**

**on the EC's green paper:  
Towards a Common Strategic Framework  
for research and innovation**



## **Introduction**

The European Commission published on 9 February 2011 its green paper *From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding* (COM(2011) 48), which started a public consultation process on the future of research and innovation in Europe. The German Aerospace Center DLR is participating in European Framework Programmes for Research since FP2 and has become one of the top 15 beneficiaries. Therefore, we have long lasting and in-depth experience with European Framework Programmes. On this basis DLR would like to provide the European Commission with an individual feedback on its ideas for the future Common Strategic Framework (CSF) in addition to participating in the Online Consultation.

## **Research and Innovation within CSF**

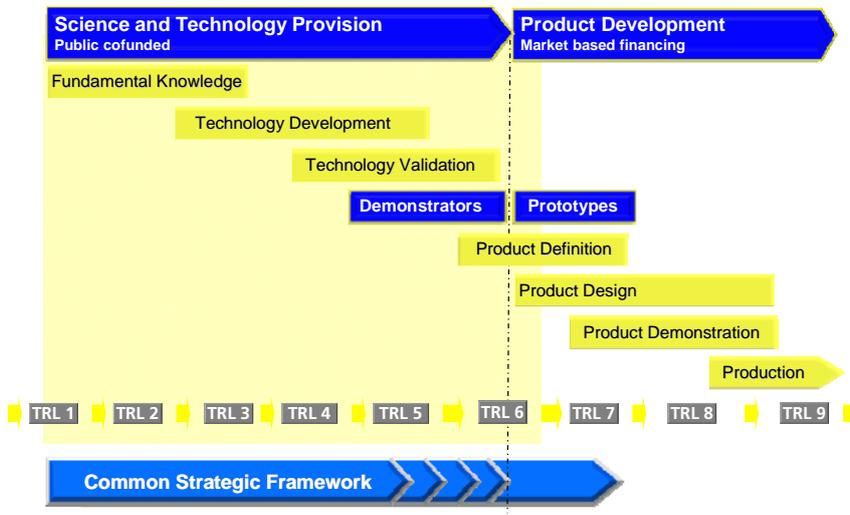
DLR welcomes the widening of the CSF's scope towards research AND innovation. We support the inclusion of additional initiatives (i.e. use structural funds for research and innovation) mentioned in the Innovation Union Flagship initiative to achieve this goal. From DLR's point of view it is implicitly necessary to cover the whole innovation process, starting from fundamental research leading to technology development, technology demonstration, system demonstration up to product development. In aeronautics, space and transport the use of Technology Readiness Levels (TRL) is a proven tool to identify the point of development in the innovation chain. This classification ensures that innovation will always be the final goal of the process. From DLR's experience the TRL classification is easy to adapt to the European Innovation processes and should be used in the CSF.

The public cofunded part (light yellow square in graph) in the innovation process up to system demonstration is currently covered by three sets of research instruments:

- small technology development collaborative research projects (STREPs, Level 0 & Level 1)
- medium sized technology demonstration projects (Integrated Projects/IPs, Level 2) and
- big system demonstration projects (Clean Sky, HFC-JTI, Level 3)

DLR asks for the continuation of coordination and support actions (CSA) as a supporting and facilitation tool (feasibility studies and networks). The subsequent use of these instruments was essential for the success of European products on the world market, like Airbus aircrafts developed on the basis of European research projects in recent Framework Programmes..

## Research and innovation chain



The continuation of these well established FP instruments and methodologies in the future CSF will help researchers and research organisations to focus on excellent research instead of trying to familiarise themselves with new instruments and administrative procedures. Maintaining the whole research and innovation process is the basis for sustainable future innovation. DLR requests that the CSF supports the whole innovation process covering frontier research (ERC), technology development (Level 1), technology demonstration (Level 2) and system demonstration (Level 3/JTI/PPP). Furthermore, the future CSF needs to guarantee access to European initiatives for all actors of the „Knowledge Triangle“ consisting of Research Organisations, Academia and industry in a similar way.

Certain steps of the innovation process - like prototype and product development being close to the market (right part in the graph) - are not covered properly in the current European support activities. Widening the scope of CSF to these parts will require additional funding. Reducing the funding for technology development will destroy the basis for future innovations. The needed additional resources for research and innovation might be achieved by combining the framework programme with the competitiveness and innovation programme (CIP) and the use of structural funds. In order to be in line with the WTO rules additional instruments like risk capital, tax refunding for research and others will be needed to cover the innovation steps close to the final product.

### Structure of CSF

In general the proposed structure of CSF (Science, Growth, Society) could be seen as a first approach to organise the future support for research and innovation. However, most research themes are not biunique and will rather cover two or more of the above mentioned aspects. For example research on renewable energy supply will provide Europe's citizens with a reliable and sustainable energy supply (covering Society). At the same time it will improve the competitiveness of the European industry producing renewable energy power plants (covering Growth) and the scientific base of European researchers (covering Science). Similar examples can be found in Transport, Aeronautics, Space and Security.

From DLR's point of view all relevant aspects like scientific excellence, society's needs and European competitiveness need to be covered in European innovation processes. This has been efficiently ensured in the FP7 by the Cooperation programme. Therefore, the continuation of these principles in the CSF is necessary.

The Advisory Council on Aeronautical Research in Europe (ACARE) represents a successful and efficient model for European cooperation. Its principles are:

- common definition of European research strategies by all relevant stakeholders like European Commission, Member States, industry, research organisations, universities, regulators and users,
- harmonised European, national and private implementation of these research strategies under individual responsibilities according to the capabilities and possibilities of the various actors

Based on experience with international cooperations DLR would like to propose the use of the successful ACARE principles as a role model for all European topics.

### **Simplification**

Simplification has been found as very important by the EC and there have been approaches to simplify administration of FPs in the recent past. However, the tendency to establish large instruments comprising a variety of organisations with different boundary conditions (including the European Commission) leads to large and inefficient structures, with diverging rules and processes. This is confusing for many potential participants, in particular small organisations like SMEs, universities and research organisations. The current administrative processes still need to be improved.

DLR welcomes that the EC - with its Commission Decision C(2011) 174 final - has reacted to the recommendations and suggestions of the participants in FP7 to simplify and improve the current administrative process, especially with regard to:

- The more flexible application of average personnel rates.
- The elimination of the requirement for a Certificate on the Methodology when average personnel rates are used.
- The acceptance of the beneficiary's usual accounting principles.
- A uniform interpretation and application of the rules and procedures related to projects within the FP for Research by the EC's services and auditors.
- The set-up of a new steering group to remove inconsistencies in the application of the rules on research funding.
- The proposed review of the requirement for coordinators to hold interest-bearing bank accounts.

However, some important features still require more detailed clarification:

- There is still no certainty for the beneficiaries that their accounting principles are accepted by the EC. It is absolutely mandatory that the EC provides reliable guidelines and criteria so that the beneficiaries can be sure their way of claiming costs is correct. As far as DLR is concerned, its intention is to perform EC-funded research projects in full compliance with the applicable rules and regulations. But the interpretation of these rules by the EC and by the EC's auditors is diverse. Our request is that the results of financial audits performed by the EC should be seen as finally accepted. If the findings do not provide any adjustments or recommendations for improvement, they should serve for the beneficiaries as a binding confirmation that their accounting method for EC-funded projects is correct.
- Beneficiaries want to carry out the administrative handling of their research projects in a consistent way throughout a research framework programme. Much time and effort is spent in adjusting and changing the financial reporting procedures or in identifying, analysing and incorporating new requirements. Therefore, the administrative systems should be kept consistent during the entire runtime of the FP and the future CSF.

In general, the participants need urgently confidence, reliability and consistency.

### **EU support for research infrastructures**

Big societal questions often ask for big research and test infrastructures to find the right answers. However, these infrastructures are necessary along the entire research and innovation chain to cover fundamental research as well as application/technology oriented research. Depending on size, capabilities and needs DLR proposes to classify European research infrastructures according to strategic, key and common facilities in order to identify needs for European actions.

**Strategic facilities:** individually correspond to investments higher than €100m and have an operating budget as high as €10m/year. They are open to any user and address scientific research e.g. in national and EU programmes as well as (if application oriented) the industrial market on a commercial basis. Such facilities are competing worldwide.

Examples for such strategic application oriented infrastructures are:

- European Transonic Windtunnel (ETW) currently involved in ESWIRP (FP7) project
- Falcon, European Infrastructure within the EUFAR-Projects (FP5/FP6), and
- Plata Forma Solar de Almeria, European Infrastructure within SFERA-project (Solar Facilities for the European Research Area).

**Key facilities:** individually correspond to investments higher than €10m. In addition to the operator they are also used by cooperation partners. Facilities with an obviously unique character may also be included in this category.

**Common facilities:** refer to a large number of other medium or small size infrastructures covering a wide range of applications in various disciplines. Such facilities are considered as basic tools whose associated costs are usually covered by operators/owners.

In particular strategic application oriented research and test infrastructures cannot be maintained only on the basis of industrial use and payment. In order to maintain and secure these kind of infrastructures for Europe, public support by the EC and member states is necessary. Only few Member States are in a position to support these facilities on their own. Furthermore the new Member States would like to increase their capabilities in European research.

Therefore, DLR supports the EC's approach to increase usage of structural funds for research and innovation in the CSF. In order to avoid unnecessary duplication of capacities the instruments for structural funds need to be adapted. It should be possible that Member States participate in already existing facilities, providing access for their national research actors from academia and industry.

### **Final Remark**

The comparison of the availability of national and European research funding with the demand outlined by the various research strategies (e.g. Strategic Research Agendas) and the very low success rates of project applications at least on European level show that there is still a lack of funding for the relevant topics. Funding for thematic research needs to be increased to ensure the implementation of European research strategies and the solution of the grand societal challenges of Europe. Therefore, DLR supports the continuation of the current Cooperation Programme in CSF.

DLR is well prepared to continue its contributions to the European strategy, research and innovation processes in order to prepare the technology base for a successful and competitive Europe and to achieve for all European challenges the two below named top level goals of the new Aviation research vision "Flightpath 2050" elaborated under the leadership of Commissioners S. Kallas and M. Geoghegan-Quinn:

**Serving Society's needs and  
maintaining global leadership for Europe**

## **DLR at a glance**

DLR is Germany's national research centre for aeronautics and space. Its extensive research and development work in Aeronautics, Space, Transport, Energy and Security is integrated into national and international cooperative ventures. As Germany's space agency, DLR has been given responsibility for the forward planning and the implementation of the German space program by the German federal government as well as for the international representation of German interests. Furthermore, Germany's largest project-management agency is also part of DLR.

Approximately 6,900 people are employed at thirteen locations in Germany: Köln (headquarters), Berlin, Bonn, Braunschweig, Bremen, Göttingen, Hamburg, Lampoldshausen, Neustrelitz, Oberpfaffenhofen, Stuttgart, Trauen and Weilheim. DLR also operates offices in Berlin, Brussels, Paris, and Washington D.C.

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