

**Comments of the Austrian Research
Promotion Agency (FFG)**

Green Paper “From Challenges to
Opportunities: Towards a Common
Strategic Framework for EU Research
and Innovation funding”

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INTRODUCTION

This document assembles recommendations and comments of the Austrian Research Promotion Agency on the successor programme of FP7, the “Common Strategic Framework” (CSF). While the on-line questionnaire of the Open Consultation on the Green Paper “From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding” provided the basis and structure for elaborating our recommendations, we have focused on those issues which we consider most important for achieving a sustainable impact by the CSF.

The recommendations and comments have been clustered into four chapters: The first chapter highlights “key prerequisites” for a success of the CSF. The subsequent three chapters are aligned to the main sections of the on-line questionnaire: Tackling Societal Challenges, Strengthening Competitiveness, and Strengthening Europe's science base and the European Research Area.

EXECUTIVE SUMMARY

13 main recommendations for the CSF

- 1) The CSF should be designed to effectively and explicitly support the research, development and innovation (RDI) priorities laid out in the **Europe 2020 strategy** and the **Innovation Union**. At the same time there should be **inbuilt flexibility** to adapt the tools and aims of the CSF if required.
- 2) The **budget for the CSF should be markedly increased** compared to FP7 in order to allow for a **success rate of around 30 %** for all funding schemes, areas and programme lines within the CSF, provided that sufficient numbers of excellent proposals are submitted. If the EU 2020 Strategy and the Innovation Union are taken seriously, the budget distribution across the main EU budget lines should clearly reflect this commitment.
- 3) **Connect research and innovation:** The **CSF should integrate all relevant funding schemes**. This includes beside the FP7 schemes also the CIP as well as other programmes (e.g. EIT). At the same time, the CSF should provide **support that specifically addresses research** and/or **innovation**, owing to the marked differences between both activities. In addition, all forms of research and innovation, including “services”, “non-technological” and “social” innovation have to be addressed.
- 4) In order to close Europe’s “competitive gap”, there is urgent need for new or adapted, **effective financial instruments**: The Risk Sharing Finance Facility (**RSFF**) should be made broadly accessible to **SMEs**.
- 5) The focus of the CSF on tackling **Grand Societal Challenges** is highly welcome. At the same time, the strategy of endorsing **Key Enabling Technologies (KET)** to substantially strengthen European competitiveness is seen as an important “counterbalance”, resulting in a promising, integrative and holistic approach of the CSF.
- 6) **European, national and regional funding schemes** should **complement** each other to the highest possible extent. For instance, **Structural Funds** should be used for the funding of research infrastructures and other research nurturing activities, but not for direct funding of research projects.
- 7) A flexible bottom up approach to **ERA-NETs** should be maintained in order to address areas of interest beyond those of the future Joint Programming Initiatives. The identification and selection of such areas should primarily be evidence-based with sufficient level of commitment and political support by Member States.
- 8) The entire set of suitable funding schemes, ranging from “matching fund instruments” to purely EU funded schemes (e.g. traditional collaborative projects), can and should be used for the implementation of the CSF. However, there is **need for a clear strategy**
 - a. which common goals should be predominately pursued by purely EU funded instruments and
 - b. which require “matching funds” (JTIs, Joint Programming, etc) and/or ERA-Nets to mobilise a critical mass of resources from other players (MS, Industry....)

- 9) The set of instruments employed should be **streamlined**. Moreover, the use of **small or large funding schemes** (projects) should be based on a well-conceived **strategy** with clearly defined goals: The pursuit of “large” strategic goals may e.g. not always be best served by large projects.
- 10) The CSF should confer fundamental simplification based on a **common set of basic rules applicable to all EU-level instruments and to all affected national / “matching funds” instruments**, and ensure a trust-based approach to funding.
- 11) The role of **National support structures** (e.g. NCPs, EEN offices, EUREKA NPCs etc.) will change. New requirements call for new strategies and tasks in order to act as efficient and effective “gatekeepers” within the CSF for the European RDI Community. **The support structures should be further strengthened** so that they are able to take responsibility for their new tasks.
- 12) Gender aspects and the role of women in research and innovation have to be seriously addressed with **practical and concrete measures** (e.g. awareness toolkits, quotas, evaluation criteria, etc.)
- 13) **A new strategy for international cooperation is needed:** International Cooperation measures are a highly important part of the CSF. They have to be established as explicit “science diplomacy” instrument, in close coordination with other DGs, particularly the External Relations as well as Development & Cooperation. Measures for international cooperation should ensure that the **best expertise** from around the world can contribute to European research activities, and that a **tailor-made strategy** is pursued also in the cooperation with **emerging and developing countries**.

1. WHAT IS NEEDED TO MAKE IT WORK: PREREQUISITES FOR A SUCCESSFUL COMMON STRATEGIC FRAMEWORK (CSF)

The success of the future “Common Strategic Framework” (CSF) for EU Research and Innovation funding will fundamentally depend on the extent to which it really can provide favourable “framework conditions” that are well understood and received by Europe’s researchers, entrepreneurs, investors, policy makers, and all other key actors within the European research and innovation system. In order to successfully deliver on the Europe 2020 strategy, the following interdependent preconditions will need to be met:

- The CSF covers the entire innovation cycle
- European, national and regional RDI funding schemes complement each other to the highest possible degree
- Fundamental simplification is achieved by the establishment of a common set of basic rules that apply to all EU funding instruments, as well as all affected national and regional funding schemes

1.1 Covering the entire innovation cycle

The CSF should integrate all relevant funding schemes for research and innovation into one programme (CIP, EIT, previous FP). Also non-technological innovation and social innovation need to be adequately addressed. The “architecture” of the CSF should provide the right instruments for the right actors at the right phases. No valuable time should be lost due to “friction” at the interfaces of instruments, caused e.g. by conflicting regulations.

Specific recommendations and comments

- There should be an option to cover **the entire value chain/innovation cycle from RDI to market uptake within one project** that “evolves” from phase to phase. This could be provided by a scheme covering the whole cycle by one single application, with a stop-or-go-decision after the R&D-phase. This way, SME or industry project partners could carry RTD-results (e.g. a prototype) further to the market by a follow-up demonstration and/or market uptake project. Such a mechanism should, however, **not replace the “R&D-only” or “Post-R&D-application-only” schemes**, but rather be offered as an additional option. New **“Post-R&D-application-only” schemes must be developed to include the large potential of non-R&D innovators.**
- There should be more innovation-related **support to tackle known market and system failures**, as exemplified by the CIP – Eco-innovation calls. These schemes would address mainly SMEs who are close to the market and benefits could be quickly realized, conferring a direct benefit for European citizens.
- Effective mechanisms should be established to support all types of **R&D projects in bringing research results to the market.** A possible example could be the newly established **“Proof of Concept”** in the ERC, which needs to be evaluated. Moreover, funded **“Business plan angels”** should analyse and screen projects, helping consortia to exploit their project results and generate a future innovation plan or innovation activities. Also the evaluation criteria and selection process for R&D projects should, where applicable, ensure appropriate consideration of exploitation activities and market-orientation.

- The public sector is faced with important societal challenges, requiring new innovative solutions. Furthermore, public expenditure is around 17% of EU GDP, representing an important demand-driven market for innovative solutions. Therefore, demand-driven research and innovation could provide new solutions, especially for the Grand Societal Challenges, and profit from an available budget for procurement of innovation. On the other hand, public procurers are risk averse and have a limited budget for innovative procurement. Hence, **incentives to foster innovative procurement** such as public procurement of innovation (PPI), pre-commercial procurement (PCP), or policy collaboration as in the lead market initiative should be provided. However, as there is little experience with innovative procurement in Europe, these instruments should be carefully developed and **tested** before putting them into force on a large scale.
- The **integration of EUREKA** into the systems of the European Research Area and the Innovation Union should be raised to a new level. EUREKA needs to be seen as an element within the ERA and the Innovation Union by all actors. The integration of the E!Clusters in the JTIs has to be re-discussed, or a clear complementarity has to be ensured.
- Previous FPs have generated an enormous amount of results. These **results should be made broadly available** both internally, at the level of the European Commission Services, as well as towards the research and innovation community, thus avoiding duplication and fostering closer links with respect to innovation capacities (e.g. through a database of IP generated, etc.)

1.2. Achieving complementarity between EU, national and regional funding

A better coordination is needed between EU RDI funding instruments, Structural Funds and national funding schemes. Only this will enable a truly concerted approach to deliver on the Europe 2020 strategy and the Innovation Union. Of pivotal importance is a clear interface between RDI funds and the Structural Funds.

Specific recommendations and comments

- **JPIs should be defined and designed along strategically oriented goals**, e.g. in line with EU Flagship Initiatives and Grand Challenges. The challenges should be **considered holistically** and JPIs should not be framed mainly along already existing national programmes.
- For Matching fund instruments (ERA-Nets, JPIs, etc), **fixed financial guarantees** by the Member States involved are required, as well as a clear decision and implementation strategy concerning where and when added value is seen for such matching fund activities.
- **The aims and intervention logic of Structural Funds (SF) and the CSF should be distinct at programme level to avoid overlaps and to assure a maximum degree of complementarity and compatibility between CSF and SF.** Better coordination between the CSF and SF than currently experienced is essential. The same framework conditions, a stable, clear and singular set of rules and common procedures should be used to simplify participation in these programmes.

- As opposed to the support for research infrastructures or innovation, the **Structural funds are an inappropriate instrument for the funding of RTD¹ projects in a narrow sense**. Single RTD projects should not be funded by Structural Funds but by the CSF or national programmes. **SF budget should be primarily used for investments in large-scale research infrastructures, thereby also contributing to regional “smart specialisation” strategies.**
- **Research infrastructures** should be established and run based on a **long term strategic plan**, in particular the ESFRI Roadmap and complementary national roadmaps, including smart specialisation strategies of regions. Access to research infrastructures should be simplified (e.g. by incentives for using mobility actions on European research infrastructures). Structural Funds should fund research infrastructures on a long term basis (in total, not only depreciation costs as in FP7), complementing national funds.
- All **cluster-relevant programmes** including parts of the CIP-EIP, Regions of Knowledge (ROK) in FP7 and parts of subprograms within the structural funds (ETZ) **should be integrated into one adequately funded programme.**

1.3. Fundamental, trust-based simplification: A common set of basic rules

For the success of the future CSF, easier access to and simplified handling of the funding instruments and rules by all participating organisations will be essential. Moreover, the simplification measures should be as broad as possible, comprising all related EC funding programmes and instruments along the “innovation cycle” within the CSF.

We therefore propose to establish a common set of basic rules applying to all EU funding instruments, as well as to all affected national funding schemes, particularly instruments with “matching funds” from European and national sources. Based on these basic rules, a modular system with sufficient flexibility to address the needs of specific target groups should be established.

In addition, it is important to switch to a trust-based funding philosophy, as called for by more than 13.000 researchers via the “Trust Researchers” initiative.²

Specific recommendations and comments

- For **setting up common basic rules, a modular approach** should be taken: one Contract with fixed Annexes, ensuring common rules for all participants based on one set of “Rules for Participation”. Additional specific Annexes and “Special Clauses” should provide flexibility for different project types and “phases” of the innovation cycle.
- The CSF rules should cater for the specific needs of the nature of research and innovation. The funding concept should be modified from a cost-based input oriented to a **cost-based output-oriented approach where favorable**. The option of **output-based** funding should be

¹ In the period 2007 - 2013 some €86 billion will be provided by the structural funds for research and innovation. Out of this, €5.8 billion are earmarked for RTD activities in a narrow sense.

² Trust Researchers: A declaration to the attention of the European Council of Ministers and the Parliament (<http://www.trust-researchers.eu/>)

thoroughly explored by **launching pilot calls**. Where possible and reasonable, the instrument of **prizes** should be used.

- In case the cost-based funding model is used, the harmonization of “eligible cost” definitions combined with a kind of “**cost reporting tool box**” (actual costs, lump sum per activities or lump sums generated by usual organisational accounting practices, scale of unit costs) should be laid down in the CSF basic rules. Especially rules determining eligibility criteria should be as simple as possible, reflecting participants’ working practices, and **not impose additional norms**.
- A new type of project participant, a “**Sub-beneficiary**”, should be introduced, who can (swiftly) join a project to carry out specific research or innovation tasks in a particular project phase without the requirement to pass through the entire set of contractual and reporting procedures. The legal requirements could be set up similarly to the FP7 “Third Party linked to a beneficiary” category, which currently only can be employed in a restricted manner.
- **Harmonised and simplified reporting requirements** should be the same for all CSF projects, and **taxes** (especially VAT) should **not be excluded from reimbursement** when not refundable by the organisations.
- A clear, well-thought-out audit regime has to be established on a trust-based approach. If maintaining the current regime, first level auditors should be certified or at least trained by the Commission to ensure the employment of the same auditing standards. Second level audits shall only be carried out in high-risk cases.
- Controls and decisions made by EU Commission via Project and Financial Officers must be legally binding (at best reducing the personal liability of Commission officers). All financial and legal documents need to be in place at the very start of the CSF.
- A “**Single Enquiry Office**” should be installed, ensuring **consistent, legally binding interpretation** of the rules and the contract across all relevant Commission entities, as well as by the corresponding national agencies where relevant (e.g. JPI).
- **Clear and common basic rules for IPR, dissemination and exploitation** should apply to entire CSF. The needs of the different organisation types involved in various phases of the innovation cycle should be adequately considered. Building on the experience with FP7, a similarly detailed IPR regime would seem helpful - flexibility could be achieved through different specific contract annexes.
- The IPR rules should also accommodate for cases where
 - a) Third Country national funding authorities own or jointly own project results in EU-projects they have co-funded
 - b) participating organisations have to share their Intellectual Property with their mother companies based in Third Countries not associated to the CSF, both of which may create major problems.

2. TACKLING SOCIETAL CHALLENGES

The concept of focusing future European research and innovation efforts more strongly on societal and global challenges is promising and an excellent possibility to “soften” the current predominantly thematic approaches. Societal challenges can only be tackled at European and global level and they should be addressed by open, strategic and interdisciplinary agendas. The agenda setting procedure of any societal challenge must at least ensure:

- a transparent definition process with a strong involvement of relevant stakeholders,
- a holistic, strategic approach in the conceptual and the implementation phase,
- the integration of all related scientific fields including the Social Sciences and Humanities,
- the consideration of technological as well as non-technological innovations
- the adequate consideration of the global dimension.

In order to be able to react effectively to Societal Challenges at EU level, different concepts and instruments should be used in a harmonised and coordinated way. The entire set of suitable instruments ranging from “matching fund instruments” to purely EU funded instruments (e.g. collaborative projects, etc) can be used, but there is need for a clear strategy which problems are best addressed by which instruments.

Specific recommendations and comments

- We support the idea that a substantial part of the CSF will be structured along so-called “Societal Challenges” such as climate change, ageing societies, energy supply etc. For tackling “Grand Societal Challenges” comprehensively, a strong consideration and integration of societal aspects is essential. **A society-oriented “Challenge”** focussing on “Transitions towards innovative and inclusive Societies” should be included in the CSF, exploiting the potential of **social sciences, economic research and humanities** to support well-founded political decision making.
- A major focus should be put on agenda-driven activities, but both agenda-driven and curiosity-driven approaches are needed (20% for curiosity-driven research).
- There should be more room for bottom-up activities, also in the context of collaborative research and agenda driven activities.
- It is important to create visions that can easily be understood by the general public, stakeholders and policy makers (building on the positive experience with [FET] Flagship initiatives). European Citizens should become aware of the fact that the finally defined “Grand Societal Challenges” and the investment in research and innovation for sustainable solutions will directly affect their life.
- Activities that are currently funded under “Science in Society” (in particular gender and research, public engagement in research, Science communication, etc.) should be continued as a horizontal issue and with a dedicated budget within the Societal Challenges.

3. STRENGTHENING COMPETITIVENESS

Europe has a strong position in generating scientific knowledge but, according to OECD figures, it is slow in the commercialization of research results, which are all too often taken up faster by companies in other parts of the world. To enhance Europe's competitiveness, the CSF should support innovation at all stages, from fundamental research to the market. The inclusion of "innovation" as a key element in the future CSF is thus strongly supported. The upcoming CSF needs to ensure a better balance between research (invention), and the implementation on the market (innovation).

There should both be instruments **directly funding innovation, and instruments supporting policy learning platforms for innovation**. Policy analysis and policy cooperation (Pro Inno Europe) and policy implementation (testing new tools and instruments – Europe Innova) should be further intensified, as they have demonstrated real impact on regional and national policies and therefore have a high leverage effect. Funding for innovation activities should go beyond the first small scale demonstration and/or establishing technical feasibility.

SMEs in particular have a pivotal role to play in developing novel products and services. Their involvement in EU level actions needs to be strengthened. Market uptake of results and technology transfer should receive higher attention. SME participation will depend on administrative aspects like time to contract, accounting systems or documentation effort. Furthermore SMEs will require stronger funding support in order to be better prepared for the risk of system and market failures.

Industry needs to be strongly involved in "agenda setting": Independently of their size, enterprises should play a significant role in designing the research and innovation agenda for topics that are decisive for the development of the European economy with respect to global competition. In this context, the European Technology Platforms could play a significant role. However, industry involvement must not result in "research and innovation cartels" that erect barriers to new market participants.³

Within the **Innovation partnerships a research and innovation road map should be established**. The pilots of European Innovation Partnerships (EIP) should be evaluated to determine whether and how these initiatives could contribute to linking supply and demand.

Specific recommendations and comments

Enhancing industry and SME participation

- Industrial participation in EU research and innovation programs will to a great extent depend on **administrative** aspects like time to contract and documentation efforts, as well as on **IPR issues**. True simplification (e.g. lump sums, streamlining of instruments, common basis rules), as well as the increased use of bottom-up-funding schemes and two-stage submission procedures should markedly strengthen SME participation.
- Research projects with a stronger focus on project results and aiming at demonstration, testing and evaluation will attract industrial participation independently of funding rates.

³ European Knowledge Framework: Austrian Reflection Paper on the Succession of the 7th Framework Programme, December 2010

- The "**post-R&D-phase**" can be a financial bottleneck: Financial mechanisms should be provided (in collaboration with EIB/EIF) in order to help enterprises, in particular SMEs, to overcome this critical stage. Such mechanisms should be available for all types of transnational R&D-projects (EU-funded projects, Eurostars, EUREKA, ERA-Nets etc.).
- Especially for SMEs, the access to debts has to be broadened (RSFF), providing smaller credit volumes by collaboration with one national funding authority or national bank to ensure the implementation instead of working with commercial banks which are often not used to the research business.
- High-tech SMEs as well as SMEs with limited / no research capabilities should be targeted with bottom up programmes at EU-level, with the pre-condition of international/EU- cooperation. A **SME-specific programme open for all technological fields, including cross-technology-issues, should be foreseen.** This programme should not be limited to "R&D outsourcing activities" as in FP7, but should also enable collaboration amongst research performing SMEs and with their research partners. Opportunities for SME-associations - with the purpose to serve their SME-members - should be contained as well.

The role of JTIs and ETPs

- With respect to **Joint Technology Initiative (JTIs)**, it will be essential to build on the "lessons learnt" so far from existing JTIs and PPPs, as e.g. expressed in the interim evaluation reports of JTIs (several of which have yet to be published) and the JTI Sherpa's Group Report. Generally, the Austrian industry and research community strongly supports JTIs. At the same time, "caveats" of these instruments are frequently pointed out, e.g. with respect to IP regulations, or complexity (two contracts). A careful analysis of all JTI-based instruments is necessary in order to determine whether some of the "new instruments" should be modified or discontinued.
- The use of matching funds in JTIs could experience a set-back if existing problems are not solved. For example, some of the JTIs consider to reduce the number of funding bodies from 3 (EU, national and industry) to 2 (EU and industry) due to the fact that the effort for preparing two contracts (EU and national) as well as the influence concerning the evaluation by the Member States is too high.
- The future role of **European Technology Platforms (ETPs)** could be to define the agenda of CSF topics or instruments, including Innovation Partnerships that will be important for strengthening European competitiveness. Generally, a high participation of industry is desired within the ETPs and the involvement of SME-associations rather than that of single SME players should be systematically enforced.

4. STRENGTHENING EUROPE'S SCIENCE BASE AND THE EUROPEAN RESEARCH AREA

The ERC and the PEOPLE programme with its spectrum of Marie Curie actions are widely recognized as key instruments for strengthening Europe's science base and building the European Research Area. The currently discussed increase in the ERC budget is supported, and the autonomy of the ERC should be further enhanced. To make the Marie Curie Actions more understandable for the research community, the number of schemes should be reviewed and possibly reduced.

Research collaboration with partners from Third countries has to be further increased and strengthened and to be addressed specifically to a long-term and sustainable development with dedicated instruments/activities for industrialized, emerging and developing countries in order to provide common solutions for global challenges or challenges of relevance to Europe.

Specific recommendations and comments

Strengthening IDEAS and PEOPLE

- The IDEAS Programme should be maintained and the budget increased
- The ERC should have a stronger autonomy with respect to bureaucracy and legislation.
- Reducing the number of Marie Curie Actions would make them more tangible, focusing more on the main goals of these funding instruments. A possibility would be to transfer the Researchers' Night to "Science in Society" and the IRSES scheme to "International Cooperation".

Strategic international cooperation with Third Countries

- International Cooperation measures are a highly important part of the CSF, making sure that the best expertise from around the world can contribute to European research activities. International cooperation measures have to be perceived as common interest by the entire CSF, thus closest interconnection and coordination across all themes and other activities will be highly necessary and has to be significantly improved as compared to previous FPs. Furthermore, international cooperation measures have to be set up in close coordination with other DGs, particularly the External Relations as well as Development & Cooperation, thus developing international cooperation in the CSF as explicit "science diplomacy" instrument. This coordination has to be reflected in the instruments made available both in the design phase as well as in the phase when results are available.
- Research cooperation with international industrialized countries may have to be considered in a different way than with other Third Countries like emerging and/or developing Countries.
- Cooperation with Third Countries could be improved by dedicated funds in these countries to allow for self-financing/funding of 'their' organisations.