



SWISS NON-PAPER: GENERAL CONSIDERATIONS FOR FP8

Executive Summary

1. FP8 should maintain the many positive aspects developed in the Framework Programmes so far and continue its **clear commitment to excellence**.
2. FP8 should therefore focus on **evolution, improvement and harmonisation** among the existing programmes and instruments.
3. **Frontier (basic) research**, and especially the successful **ERC scheme**, must be strengthened (and in no way be neglected compared to innovation) in order to guarantee breakthroughs and innovations in subsequent years. Furthermore, frontier research should not be restricted to the ERC but also have a strong focus in other programs (e.g. Cooperation, People).
4. Switzerland proposes a **matrix approach** that integrates **Grand Challenges** into the topics of each thematic area and an integration of **innovation** in a horizontal way within the existing Cooperation programme.
5. There is a need for **streamlined structures** with a clear focus on **simplicity** and the **avoidance of new programmes and instruments**. Related framework programs such as EURATOM should be synchronised as much as possible with FP8. Programmes under Art. 185 and 187 TFEU should also be synchronised with FP8 as much as possible, e.g. with respect to timeline and funding schemes.
6. **World-wide** mobility and **cooperation** as well as **cross-sector mobility** between SMEs, industry and academia must be enhanced to foster research and innovation.

Note: This document is a synthesis made by the State Secretariat for Education and Research reflecting its own views as well as comments received from the following institutions:

- Federal Office for Professional Education and Technology
- Integration Office, Federal Department of Foreign Affairs (FDFA) / Federal Department of Economic Affairs (FDEA)
- Swiss National Science Foundation
- Euresearch (Swiss NCP and Information network on FP7)
- ETH-Board
- Swiss Rector's Conference (CRUS)
- Mission of Switzerland to the EU, Brussels
- SwissCore (Swiss Contact Office for European Research, Innovation and Education), Brussels
- Swiss FP7 Programme Committee Experts of the Federal Departments

Structure: A Matrix to Incorporate Grand Challenges and Innovation

A Matrix to Incorporate the Grand Challenges:

In the logic of the current Specific Programme “Cooperation”, Switzerland considers that the current thematic areas (ICT, HEALTH, ENVIRONMENT, SSH etc.) should be maintained. This ensures continuity for researchers, allows comparison with previous research projects and takes advantage of the structures that were optimised through FP6 and FP7. In each thematic area however, a new activity (main category) labelled “Grand Challenges” could be included, containing as sub-categories all Grand Challenges identified by the European Commission. If additional Grand Challenges appear in the future, they will be added under this same activity. An identical activity “Grand Challenges” in each thematic area would allow for coherence between the different programmes and instruments. It also guarantees a holistic, multi- and interdisciplinary response to the identified Grand Challenges across different thematic areas. Switzerland furthermore suggests that Grand Challenges and the strategic research agendas are defined bottom-up, by consulting all concerned actors (e.g. research communities, NGOs, funding agencies, political bodies).

Integration of the Full Innovation Chain in the Entire FP8: Innovation should be included as a new element within FP8 but embedded within the existing, already optimised structures. Yet frontier research must in no cases be neglected compared to innovation (i.e. applied research and development activities) in order to maintain an intact pipeline for innovation in subsequent years. An elegant way to achieve this would be to *redefine funding schemes* and to create a set of funding schemes addressing each stage in the continuum of the innovation chain. This set would thus comprise several funding schemes:

1. *Funding schemes adapted for frontier research*, including funding for cooperative projects and grants for individuals (ERC);

2. *Funding schemes adapted for pre-competitive research*, including actual JTI funding schemes;

3. *Funding schemes for applied research / experimental development / demonstration*, including PPPs and specific funding schemes to avoid the “death valley” of SMEs in the innovation chain.

Importantly, this set of funding schemes should be *harmonised throughout all FP8 programmes and initiatives*. This would integrate the entire spectrum from frontier research to experimental development without the need of additional structures. Furthermore, the use of consistent funding schemes in all FP8-related activities offers fundamental harmonisation and substantial simplification for researchers, SMEs and industry.

Concerning project funding, FP8 should concentrate on financing frontier research and the pre-competitive stage of the development chain; all later stages (e.g. experimental development) should include a mandatory, significant monetary contribution especially from large industry given that participating firms will receive the benefits from the finalised product. The EC should provide additional support specifically for SMEs as well as for unconventional and risky projects.

Innovation topics should be open, allow a bottom-up approach and should be included as a later step after frontier research in the evolution of entire research areas. To avoid fragmentation, research-based innovation should be integrated into a consolidated FP8 structure, including EIT and those CIP elements valuable for SMEs. As a consequence, the FP8 umbrella will contain all necessary elements of innovation and avoid any duplication with former structures and between DGs (e.g. EIT should not remain at DG Education).

Priorities: Given the difficulty to reach a significant budget increase, clear priorities should be chosen (rather drop an instrument than having success rates around 10%). This also implies the courage to drop older initiatives or programmes that have not lived up to their expectations, have not gained the desired momentum or have remained overly complicated in their implementation.

Governance: A Clear Separation of Tasks

Credit where Credit is Due: Striving for simplification, Switzerland underlines the general need for disentangling tasks, define one responsible organ / group for each task (or a clear coordination of overlaps under one roof), and reduce the number of thematic and governance groups. Within the EC, thematic responsibilities should be unambiguously allocated to a single DG of the Commission in charge.

Principle of Subsidiarity: Switzerland advocates for a clear repartition of work between EU, international and national programmes according to the principle of subsidiarity in order to avoid duplications between funding instruments. The European level should concentrate on instruments with European added value that favour the supra-national level (e.g. mobility, maintenance and access to pan-European research infrastructures, co-ordination activities, excellence programmes) and avoid instruments that can be offered in a better way at the national level. Initiatives where EC and national funds and decision-making are mixed (e.g. JTI with national additional funding) should either be allocated clearly to one or the other funder or be discarded. Also the concept of Joint Programming should take into account these principles, i.e. the decision power and responsibilities should lie with the actual funders.

FP8 Funding: Along the principle of subsidiarity, Switzerland considers that the budget of FP8 should be consistent with the FP7 budget, thus striking a balance between national and EU funding. Therefore, an increase similar to the one from FP6 to FP7 should be avoided.

Keep it Simple: Meta- and especially meta-meta-structures (such as the proposed European Innovation Partnerships that pool and coordinate meta-structures like joint programming and lead markets) should be reviewed critically in view of reducing complexity. In this sense, Switzerland approves a moratorium on new instruments and supports only proven instruments to be continued.

Implementation: A Coherent Entity

General Need for Harmonisation

Harmonise Instruments: It is absolutely fundamental that *all* FP8-related programmes and initiatives provide

- Harmonised funding schemes (covering the entire innovation cycle, cf. above) and rules;
- Harmonised participatory rules;
- Harmonised participant categories (public institutions, SMEs and industry);
- Harmonised rules with respect to overheads;
- Harmonised intellectual property rules.

Within each category, a minimal number of options should be offered.

Funding Schemes and Rules: In FP8, all programmes, initiatives and instruments (in particular JTIs) must use identical rules and funding schemes to the maximal possible extent. There is a need of harmonisation and substantial simplification for researchers, SMEs and industry, in order to make FP8 more transparent and attractive. Additionally, a trust-based approach to research funding, the stability and consistent application of rules and traceability of decisions could also greatly improve the efficiency. As suggested above, common funding schemes covering the entire continuum of the research and innovation chain should be defined.

Participatory Rules: All programmes, initiatives and instruments pertaining to FP8 should be automatically open to all EU member states and associated countries without the need for further association procedures. In large projects with national contributions (e.g. FET flagship initiatives, ESFRI projects), later participation must be possible in order to allow for the necessary political decision-making process.

Participant Categories: A maximum of three categories of organisations should remain: public institutions, SMEs, and large industries. The administrative complexity could be reduced by sticking to a set of standard instruments with a reduced burden of reporting and financial control.

Overhead: Several cost models with different options should be offered, but they must again be consistent through all FP8-related programmes and initiatives, e.g. for consistent overhead costs.

IPR: All FP8-related programmes, initiatives and activities (e.g. JTIs, PPPs) must adhere to one comprehensive set of Intellectual Property Rules that use identical definitions and meet the requirements of public institutions, SMEs and industry alike. Programs or instruments considering themselves incompatible with this set will not be funded by FP8. The establishment of a “FP8 IPR supervision board” could help researchers, SMEs and industry for a consistent interpretation of IP rules.

Be a Smart Funder – Trust Researchers

Result-Based Funding Yields no Results: Result-based funding actually creates more questions than it answers: Who decides on the definition of the results/output and on whether the requirements are matched? As it is essentially impossible to predict the outcome of research, such an approach would complicate the handling of project funding, especially in frontier research. Therefore, there is a high probability that researchers are scared off from participating in the FPs with result-based funding. Considering the fact that some non-results have brought forward a research area much more than an originally expected outcome, result-based funding could lead to conservative, already known answers rather than the intended innovative results.

Lump Sums only without Administrative Burden: Introducing lump sums within FP programmes could in principle be a step to a more trust-based attitude towards the FP participants. If at all, lump sums should only be used under the following conditions:

- The size of lump sums is confined and clearly attached to defined sub-tasks of research projects.
- The administrative burden (controlling and audits) is minimal.

- The allocated lump sum respects the actual research costs for this task in a given country and avoids cost dumping.
- The use of lump sum vs. a conventional cost-based approach should be at the discretion of the applicant.

Let the Knowledge Circulate

Borderless Mobility plays a crucial role in the development of the ERA and is a vital component for a successful research career. With the People Actions and the ERC Grants, FP7 attracts and trains the best researchers. Next to the ERC, researcher mobility and the “Fifth Freedom” should therefore play an important part in the future Framework Programme. Instruments such as scientific visas should be further examined throughout the whole ERA, including the Associated States, and especially for researchers coming from Third countries, thus opening ERA to the world.

Use the Young Brains: More emphasis should be put on the Early Stage Researchers and their potential in order to promote creative ideas. In this endeavour, the Euraxess Services and Networks should be enforced. Furthermore, doctoral candidates should be considered as employees with a formal work contract within the host institution.

Glossary:

<i>CIP</i>	<i>Competitiveness and Innovation Framework Programme</i>
<i>DG</i>	<i>Directorate General</i>
<i>EC</i>	<i>European Commission</i>
<i>EIT</i>	<i>European Institute for Technology</i>
<i>ERA</i>	<i>European Research Area</i>
<i>ERC</i>	<i>European Research Council</i>
<i>ESA</i>	<i>European Space Agency</i>
<i>EU</i>	<i>European Union</i>
<i>FP</i>	<i>Framework Programme</i>
<i>ICT</i>	<i>Information and Communication Technologies</i>
<i>IPR</i>	<i>Intellectual Property Rights</i>
<i>JTI</i>	<i>Joint Technology Initiatives</i>
<i>NGO</i>	<i>Non-governmental Organisation</i>
<i>PPP</i>	<i>Public Private Partnership</i>
<i>SME</i>	<i>Small and Medium Enterprise</i>
<i>SSH</i>	<i>Socio-economic Science and the Humanities</i>
<i>TFEU</i>	<i>Treaty on the Functioning of the European Union</i>