

SNSF position paper for the public stakeholder consultation - interim evaluation of Horizon 2020

Introduction

The Swiss National Science Foundation (SNSF) is the main Swiss funding agency for fundamental research, with an annual budget of nearly €800 mio. It supports researchers and research projects in all disciplines, from philosophy and biology, to the nanosciences and medicine. The SNSF aims at providing the best possible service for researchers working in Switzerland and thus welcomes the opportunity to voice its opinion regarding the European Framework Programmes for Research and Innovation. The SNSF would like to emphasize especially the need for complementarity between national and European funding instruments and programmes and for schemes with a clear European added value.

For the SNSF the Horizon 2020 specific objective of “strengthening scientific excellence in Europe” is the most important, and we believe that the second half of Horizon 2020 and the successor European Framework Programme for Research and Innovation (FP9) should continue to focus on this aim. The Framework Programmes are an important part of the European Research Area (ERA), which is an open-ended process and we have to constantly work on it to improve it.

Drawing from our observations of Horizon 2020 so far we would like to outline some key points that the SNSF considers crucial for the second half of Horizon 2020 as well as for the future Framework Programmes. The SNSF is a committed member of the ERA and contributes to its development through its engagement in Science Europe, its active participation in EC consultation and its numerous mechanisms and instruments for transnational cooperation and mobility.

Key messages

Right balance of basic research and innovation

The SNSF believes that it is important to keep the right balance between basic, investigator-driven research and innovation funding. In Horizon 2020 we have seen a shift towards more innovation funding and we are worried that in the future this focus will be even more

pronounced. Basic research with all its benefits must not be neglected and is a necessity/prerequisite of all innovation activities.

For the SNSF the support of fundamental research in a “bottom-up manner” is particularly important. In programmes such as the ERC, the Europe-wide competition provides real EU added value. Also, for the SNSF it is very positive that they also provide funding for young, talented scientists. Since its creation in 2007, the ERC has also been a very successful programme for attracting talent to Europe. It is identified as a key building block in the ERA and must remain as such. The SNSF welcomes all initiatives aiming at strengthening the funding of the ERA and its international outreach. It also welcomes the re-introduction of ERC Synergy Grants as of 2018, as it is an efficient way to fund bottom-up collaborative and interdisciplinary fundamental research.

Connected to this, basic research must continue to receive enough funding. The budget of the ERC, but also of the Marie Skłodowska Curie actions, must be maintained or even increased. Also, the ERC as the “flagship” instrument of Horizon 2020 should be strengthened further in order to be able to continue its success. To make it more attractive and increase competition, the ERC could be opened up to applications from participants in third countries (with special conditions, of course, e.g. separate funding).

Concentrate on activities with a clear European added value

As in the past, when defining the priorities of the second half of Horizon 2020 and designing the next Framework Programme, the EU should focus on instruments/activities with a clear European added value. Only activities that cannot be done, or not as well, by national organisations/countries on their own should be taken on by the EU, such as fostering collaboration on grand challenges that cannot be solved on the national level, excellence programmes such as ERC and Marie Skłodowska Curie that involve very large grants and need international / European competition to make sense, or infrastructures with pan-European importance.

Also, the support of cross-border collaborative projects and networks, which leads to cross-country learning and networking opportunities, provides such a European added value. It enables researchers from different regions (also from outside of Europe) and backgrounds (public, private) to work together. Especially for topics that cannot be tackled by individual researchers or research teams, or that are e.g. interdisciplinary or need various kinds of knowledge, collaborative projects are very important.

Clear commitment to excellence

Excellence must be maintained as the sole criterion for funding in the second half of Horizon 2020 and the next Framework Programmes. Supporting lower-performing and underrepresented countries and widening participation is crucial but this has to be done by structural funds and other infrastructural investments. Horizon 2020, and also the future Framework Programmes, should not be used to make up for underfunding in various countries. The ‘spreading excellence

and widening participation' specific objective (teaming, twinning and ERA-Chairs) can certainly play a small role in reducing the science divide. However, it is not possible to 'spread excellence'. Seeds of excellence can be planted but they need the right ecosystem to flourish. Reforms at national level (e.g. properly rewarding top researchers) must be conducted in the 'widening countries' and be accompanied by an increase of spending in the field of research and innovation.

The widening participation schemes that have been started in Horizon 2020 should be evaluated quickly to see whether and how they have improved the situation and whether it makes sense to continue them.

Stronger focus on basic, investigator-driven research also in the societal challenges pillar

The Societal Challenges pillar needs to be more open to projects that include or focus on basic, investigator-driven research rather than putting all its emphasis on projects/applicants with "higher technology readiness levels". Basic research tries to encourage novel approaches and is long-term oriented, which is a good addition to innovation activities, which often focus on short-term goals.

The SNSF thinks that all pillars (especially 1 and 3) should provide adequate funding of basic research. Also, the SNSF would like to see the EU adopt an understanding of innovation that is not too narrow: research and innovation is not a "linear" system, but there is considerable interconnectedness and interaction between actors and domains. Especially in the societal challenges a focus on long-term goals (which usually can be found in basic research) is at least as important as short-term "impact" (which is more characteristic of innovation activities). At the moment, basic, investigator-driven research is confined to pillar 1 and largely excluded from the other pillars, which means that these cannot benefit from the advantages of basic research. It could be beneficial to have the same topic addressed at different TRL (from low to high TRL) throughout the years.

Fewer, more streamlined instruments

Horizon 2020 currently has a very high number of programmes and initiatives, all with differing rules and regulations, which makes participation very complicated for the researchers involved. Thus, the rules of participation should be better aligned (exception: ERC and Marie Skłodowska Curie Actions) in order to make the administrative burden for researchers as light as possible.

Some of the instruments share similar goals and should be screened in order to see if they could be made more efficient. For example, the ERA-Net Cofund instrument should be simplified in order to reduce the administrative costs it entails. Broader – and maybe fewer – ERA-nets could help reduce administrative/transaction costs.

The SNSF generally is in favour of having fewer funding opportunities/schemes/topics but all with an adequate budget, as a funding instrument with extremely low success rates, e.g. below

10%, is unattractive for both applicants and reviewers. The funding of successful instruments should be increased to reach an attractive level.

Strengthen international cooperation

An important aspect of European funding is its openness to including researchers from third countries when needed. In Horizon 2020, contrary to its predecessors, international cooperation is streamlined in all instruments and there is no specific funding line for international cooperation any more. This new practice in the first part of Horizon 2020 has led to a decrease of international collaborations/participation of international partners. While the SNSF is very much in favour of treating international cooperation as a transversal issue, it has to be acknowledged that this strategy has not worked well in Horizon 2020 so far.

Thus, in the second half of Horizon 2020 and in the future Framework Programmes measures have to be taken to increase the participation again: the number of co-funding mechanisms with third countries should be increased and financial regulations should be made more flexible. If these measures fail, a reintroduction of a separate funding line with partners from third countries should be considered in the next Framework Programme, as collaboration with and openness to the world is crucial for research in Europe.

Increased funding

The funding for the next Framework Programmes should be increased, as knowledge is Europe's most important resource – and will even be more so in the future. In addition, member states and associated countries should be encouraged to raise their R&I spending as well, especially those that lag behind. This process should be started in the second half of Horizon 2020.

Focus on grants instead of loans

For the largest part of research grants are the only realistic and acceptable funding method. There is no way that public institutions can pay back loans, and thus future programmes should refrain from offering this kind of funding most of their instruments.

Financial instruments such as loans are fine for research that is close to market or similar activities, but for the majority of Framework Programme funding grants should be kept.

More involvement of stakeholder organisations

More structured, more sustained communication regarding work programmes and the shaping of instruments between EU and stakeholder organisations might be helpful overall to improve the second half of Horizon 2020, and the next Framework Programme, and help add the participants' perspective to the process. The SNSF is certain that stakeholder organisations that represent national funding and performing organisations, e.g. academies and learned societies, but also

business communities and similar organisations, will be more than happy to help shape the future of Horizon 2020 and the 9th Framework Programme. This communication should allow for actual dialogue (in addition to the consultations), perhaps in the form of workshops, or in a similar format.

The Swiss National Science Foundation (SNSF) is the principal Swiss agency promoting scientific research. On behalf of the Swiss Federal government, it supports researchers and research projects in all disciplines, from philosophy and biology, to the nanosciences and medicine.

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