



ESF reloaded



VIEWPOINTS

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Jean-Claude Worms
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The European Science Foundation (ESF) has gone through major changes over the past 8 years but has survived these changes with a new approach and mission. It now provides research stakeholders and the research community with high-quality tools for research evaluation and management, and aims at becoming an implementation agency in support of the European Research Area's broader goals, while continuing to contribute to the discussion on the next Framework Programme of the European Union.

The founding in November 1974 of the [European Science Foundation](#) (ESF) took place amidst a “...*distracted and divided world*” (1) and the newly-formed organization immediately endeavoured to address big scientific projects

that were too large, complex and expensive for any single nation to fathom. What followed soon after is “...*a story of astounding change, at astounding speed: of European missions to the frozen hydrocarbon seas and beaches of Saturn's moon Titan, of explorations of matter at the measure of a nanometer, and measures of atomic change at the speed of a femtosecond, of advances in economic status and health that will add another three billion souls to the sum of humanity...*” (2). ESF played a significant - if not fundamental - role in those and other achievements of science and later contributed to the creation of the European Research Council.

For four decades ESF created, structured and benchmarked tools for high-quality collaborative research in Europe at large (at its peak, the organisation had 80 Member Organisations coming from 30 countries). From the smallest, Exploratory Workshops, to the biggest, EUROCORES, funding instruments, it enabled the implementation of cross-border programmes that allowed a European scientific community to emerge, cooperate and reinforce itself. In parallel, the European Union's Framework Programmes also facilitated that process. During that period, ESF supported over 2,000 programmes and networks in which 300,000 scientists coming from 186 countries contributed.

This era came to a stop in 2010 when the ESF member organisations decided to end the traditional ESF mission to fund research programmes and research networks. This process took 5 years to complete and left a gap in research funding that has been commented upon by several independent actors (3). There was an ensuing uncertainty about the future of the ESF as some members wanted to terminate the whole enterprise, while others thought that the ESF's four decades of experience should be used. This debate was resolved in 2015; at which point ESF was transformed into a kind of science implementing agent: a science service-providing organisation.

In its previous mission ESF had built strong foundation in all processes related to scientific management (grant evaluation, project management). What ESF does today is really putting that foundation to work to support research decision-makers, funding agencies and research performing agencies. We advise them in carrying out their science-related decision-making process by using and developing the most appropriate metrics, the best research evaluation tools, and the experience we have in terms of project management and research support. These are the main services we currently provide on a contractual basis. Clearly there is a potential for the ESF to become an "implementation agency" in the European Research Area (ERA) by broadening and strengthening its service base.

Today the ESF continues to contribute strongly to the development of the ERA. This involves partnering with research stakeholders and customers in leading successful projects and through a wide range of support services. We have an international and interdisciplinary team with deep understanding of science matters and research infrastructures across Europe, and we are providing that experience, along with forward thinking and planning, to all our members, partners, and customers, both public and private. We are currently engaged in over a dozen key projects including participation as Partner or Coordinator in the highly visible European Commission's [Graphene Flagship](#) or in the inventory and web portal of [European research infrastructures MERIL](#). We are also expanding our resource network of research expertise and talent by establishing the [ESF Community of Experts](#). This network is reactivating the ESF network of international academics, science policy experts, key decision-makers and stakeholders across the European and global research landscape.

Clearly one key challenge for all actors of research in the coming years will be the implementation of the next EU's Framework Programme Horizon Europe. Like many other individuals and institutions ESF has been consulted and involved in the discussion concerning this programme. We have published recently a joint statement (4) with Euroscience and Initiative for Science in Europe (ISE) on the new "Mission-oriented Approach" (5) that Horizon Europe should follow.

This concept is certainly interesting per se although it is probably exaggerated to state that “*most technologies have emerged from missions*” - in fact curiosity-driven research has also led to many technological developments in the past. “Missions” would be introduced as a new tool in the framework programme architecture. They can certainly provide a new and necessary top-down perspective but several issues clearly need more elaboration. For instance, what share of the funding of Horizon Europe would missions receive? How will the topics be proposed, evaluated and managed? How will they relate to existing instruments? How to ensure their long-term sustainability (i.e. longer than the duration of the FP)? The discussion is of course only starting but it seems obvious that a cautious approach would be to toy with the concept by starting initially with a limited number of topics, and then develop them in a phased approach incorporating evaluation phases after a few years.

To know more about the new role of ESF please visit www.esf.org

REFERENCES

(1) the way we were - A celebration of 40 years of European science, ESF Strasbourg and Tim Radford, ISBN 978-2-36873-010-2, May 2014.

(2) Ibid.

(3) Conclusions from the ISE event: Is there a funding gap on collaborative research in Europe? http://www.initiative-science-europe.org/2016fundinggap/Conclusions_ISE_funding-gap.pdf

(4) <https://www.euroscience.org/news/policy-paper-on-missions-in-fp9/>

(5) Mazzucato M., Mission-Oriented Research & Innovation in the European Union - a problem-solving approach to fuel innovation-led growth, European Commission Publications Office, ISBN 978-92-79-79832-0