



EUROPEAN
SCIENCE
FOUNDATION



ESF Today

The European Science Foundation



ESF headquarters in
Strasbourg, France

About the European Science Foundation (ESF)

With 40 years' experience in European research, the European Science Foundation (ESF), established in Strasbourg in 1974, was set up to act as a coordinating body for Europe's main research funding and research performing organisations operating at national levels. It therefore added an exceptional European dimension to science collaboration and to promoting best practice in matters such as peer review or evaluation and indicators.

With an initial membership of 42 academies and research councils in 15 countries, in 2013 ESF counts 67 Member Organisations, including research funding organisations, research performing organisations, academies and learned societies in 29 countries.

ESF is committed to achieving the highest quality science in Europe to drive progress in research and innovation. It helps its Member Organisations to collaborate internationally on research programmes that ESF coordinates in almost every scientific domain. Services provided to the science community include peer review, evaluation, conferences, research career development and mapping research infrastructure. ESF also hosts expert boards and committees that provide high-level targeted expert advice in areas of research, policy, infrastructure, environment and society in Europe.

(Right)
The ESF currently
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ESF Today

ESF is currently in a period of transition, adapting to a changing world. The European research landscape has changed dramatically and ESF has played a significant role in underpinning those changes. ESF was indeed one of the earliest milestones on the road to achieving real cooperation in research on a pan-European scale.

Together with the former European Heads of Research Councils (EUROHORCs), ESF played a key role in establishing a strategic roadmap for the European Research Area (ERA) and achieved the first successful results to consolidate the voice of the members, through for example, its publications the *European Code of Conduct for Research Integrity* and the *European Peer Review Guide*.

ESF and Science Europe

In today's climate the focus on driving a successful ERA is a top priority and the challenges to achieving success are numerous. ESF Member Organisations came to the conclusion, in May 2010, that a new approach was needed in order to play a strong and influential role in ensuring their voice was heard at a European policy level. From this perspective *Science Europe* was born. Launched in 2011, and intended as the interlocutor for research funders and performers in Brussels to drive the ERA, *Science Europe* addresses political issues related to science and research in Europe.

Possible New Directions

Although ESF is reducing its traditional activities, new directions are being explored for a possible successor organisation that could be self-supporting and financially viable without dependence on its current members. With ESF's 40 years' experience in coordinating science and research programmes, it holds a robust network and strong reputation in the international science community. And with its efficient



infrastructure and experienced staff, ESF is poised to evaluate opportunities and to offer valued services for the science and research communities in Europe and beyond.

Some activities, where a real need in Europe has been identified, are **peer review services**, such as for grant schemes and corporate foundations, **evaluation** of institutes and national research schemes and **research conferences**. ESF is also involved in several high-level projects for the European Commission, for example, the Graphene Flagship.

More information about ESF activities and latest developments at:

► www.esf.org

Serving Science

ESF has been given the opportunity by its Member Organisations to explore new directions for a possible successor organisation that could be self-supporting and financially viable without receiving contributions from its current members.

Some of the activities which have already been identified as areas where there is a need for support are peer review services, for example for grant schemes and corporate foundations, evaluation of institutes and research programmes, research conferences, and managing important EC contracts such as MERIL (Mapping of the European Research Infrastructure Landscape).



Peer Review

Responding to a growing need for high-quality peer review, ESF has developed internal expertise and streamlined processes to provide the highest quality peer review. With our pool of highly regarded and experienced reviewers which is continuously enhanced and updated, ESF has the capacity to provide scientific peer review support to institutes, establishments or organisations implementing competitive calls. The nature and scope of our services include contributions from provision of expert reviews for specific competitive calls to full-scale call management, including planning, coordination of specialised peer review and research evaluation assignments. ESF is also eager to develop and implement the

best approach tailored to the specific needs of a partner organisation or the specificities of a given competitive call, taking into account the many elements that drive the quality and relevance of a peer review process.

ESF's high-level competencies in peer review management are the result of our robust history in science management activities, for our own research instruments (e.g. EUROCORES, Research Networking Programmes and Exploratory Workshops) but also from managing FP7 projects and other specific contracts with major European stakeholders. ESF's expertise in peer review has also been enhanced through common actions, dialogues and joint policy initiatives such as the ESF Member Organisation Forum on Peer Review which resulted in

the *European Peer Review Guide*, today used throughout Europe and internationally as the leading framework for peer review.

Peer review and grant awarding procedures are key to the quality of performance of ESF Member Organisations as research organisations and of their image in the scientific community. However new challenges and requirements for peer review arise because of changes to ways research is organised and funded.

► www.esf.org/peer-review

Evaluation Support

ESF is developing its activities to become a high-quality international evaluation service provider, providing excellence in basic research, development and innovation. ESF aims to connect evaluation with strategy and process improvement – implementing lessons from evaluation in practice and helping to apply them.

ESF has a solid experience conducting structured evaluations of national funding organisations and academic institutions and can also apply its expertise to foundations and research organisations. Evaluations comprise an interactive assessment of strengths and weaknesses, scientometric performance analyses and evaluation by international peer groups. ESF uses a wide range of quantitative and qualitative evaluation tools. It conducts research, performance and organisational evaluations and consulting on research strategy, organisational structure, management practices and governance.



ESF evaluations mainly focus on the following aspects:

1. The assessment of organisations throughout

- their governance and management
- the analysis of their strategy
- a full scale *ex-post* evaluation

2. The assessment of programmes or research groups focusing on

- their scientific quality and impact
- their internationalisation

3. Recommendations and strategic planning, foresight and policy advice

ESF delivers its services in the spirit of the peer review process and of scientific excellence. This includes in-depth interactions between the organisation that is evaluated with the ESF experts to arrive at conclusions together and identify solutions that are tailored to best fit the corresponding environment.

► www.esf.org/evaluation



Conferences

The ESF Research Conferences Scheme provides the opportunity for leading scientists and young researchers to meet and discuss the most recent developments in their fields of research. It acts as a catalyst for creating new synergistic contacts throughout Europe and the rest of the world.

The Scheme develops principally through the establishment of long-term partnerships between the ESF and national and international organisations, including universities. Individual conference topics are either selected by ESF and its partners, taking into account their strategic interests, or are generated through an open call for proposals announced at the beginning of each year.

ESF Research Conferences are open to scientists world-wide, whether from academia or industry. Topics are at the forefront of scientific research and interdisciplinary when appropriate.

► www.esf.org/conferences

MERIL Mapping of the European Research Infrastructure Landscape

It is increasingly recognised that excellent research requires excellent supporting research infrastructures (RIs).

MERIL is a pan-European initiative to produce a mapping of research infrastructures of 'more-than-national' relevance across Europe. Such a tool has long been desired, to serve both as a source of information for researchers seeking access to a facility or service, and as a reference for policy-makers analysing the state of the research infrastructures in Europe.

Funded by the European Commission from October 2010 to December 2012 under the coordination of the ESF, the MERIL project has produced a publically accessible online database of European infrastructures across all scientific domains. The BETA version of the MERIL portal has been live online since October 2012, allowing users to search for and download information on relevant infrastructures.

All infrastructures indexed in the database have been evaluated through a national or European



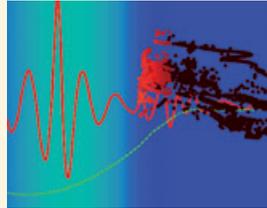
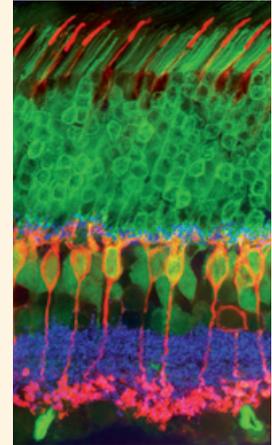
Artist impression of the Herschel spacecraft
© ESA/ AOES Medialab; background: Hubble Space Telescope image (NASA/ESA/STScI)

The RRS James Clark Ross during the JR240 ICEBell Cruise in the Bellingshaussen Sea
© Pete Bucktrout/British Antarctic Survey
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process on the basis of commonly agreed criteria, in order to ensure standards of quality, access and management. Inclusion in MERIL is thus a label of quality.

In 2013 the MERIL project is being supported by the ESF Member Organisations in order to allow for consolidation of the portal as well as initial exploitation of the data. The database will thereafter be continuously updated with RIs that meet the eligibility criteria. The MERIL portal will thus be a unique tool for researchers and policy-makers.

► <http://portal.meril.eu>



Hosting Experts

ESF covers every scientific discipline and research domain. To promote and support high-quality science at a European level ESF manages a wide-ranging portfolio of activities. Five Scientific Review Groups ensure an on-going quality assurance and expert advice during the execution of all of ESF research and networking instruments. ESF also facilitates several high-level pan-European organisations, in particular six Expert Boards and Committees.

Scientific Review Groups

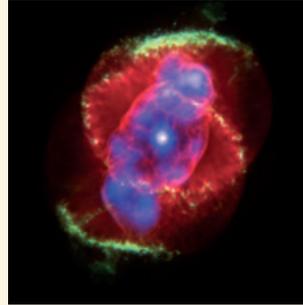
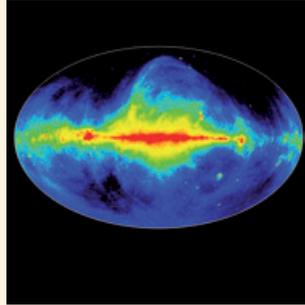
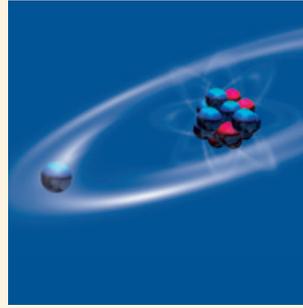
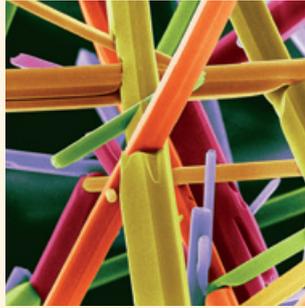
In order to adapt to the progressive winding down of research instruments that ESF coordinates, the structure of how we work with experts in the diverse scientific disciplines has been changed. Previously ESF had scientific Standing Committees composed of leading scientists nominated by the ESF's Member Organisations who were responsible for identifying scientific priorities, formulating strategies, developing research agendas and conducting peer review.

In the new ESF structure, five smaller Scientific Review Groups (SRGs) now replace the previous Standing Committees which were disbanded at the end of 2012. These SRGs are streamlined to work more efficiently on the decreasing number of programmes and advise ESF and its Chief Executive on research matters.

The five Scientific Review Groups are as follows:

- Humanities
- Life, Earth and Environmental Sciences
- Biomedical Sciences
- Physical and Engineering Sciences
- Social Sciences

► www.esf.org/srgs



Expert Boards and Committees

In addition to the five Scientific Review Groups, ESF hosts six Expert Boards and Committees (EBCs) that provide in-depth and focused scientific expertise in selected disciplines. The SRGs provide the scientific backbone and the breadth required for realising the mission and operation of ESF in a general sense, whereas the EBCs address more specific scientific needs and provide high-level targeted expert advice in areas of research, policy, infrastructure, environment and society in Europe. This two-pronged structure of expertise has served the scientific communities and the portfolio of ESF activities very

well over the past years. The EBCs currently operate under the strategic guidance of either ESF Member Organisations or European agencies and research entities. They are composed of high-level researchers nominated by their stakeholders and deal with strategic science questions in their domains and are responsible for guiding policies in their areas of research. Growing interdisciplinarity is reflected in mutual observership and in an increasing number of activities, involving cooperation between committees. Scientific partners from Europe and beyond take part as observers.

Current Expert Boards and Committees hosted by ESF:

European Marine Board (EMB)

▶ www.marineboard.eu

Materials Science and Engineering Expert Committee (MatSEEC)

▶ www.esf.org/matseec

Nuclear Physics European Collaboration Committee (NuPECC)

▶ www.nupecc.org

European Polar Board (EPB)

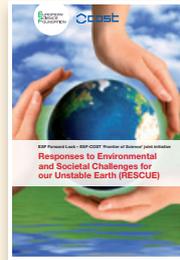
▶ www.esf.org/epb

Committee on Radio Astronomy Frequencies (CRAF)

▶ www.craf.eu

European Space Sciences Committee (ESSC)

▶ www.esf.org/essc



(Left)
Most recent ESF
Forward Look
reports

(Right)
Most recent
ESF Member
Organisation Forum
reports

Coordinating Research

EUROCORES

The EUROCORES (European Collaborative Research) Scheme enshrines ESF's goals of enhancing synergy at a pan-European level by providing a framework to bring together national research funding organisations and supporting interdisciplinary research in non-traditional areas, thereby opening new horizons in science.

EUROCORES programmes are broad and complex in nature, with topics selected through an open call for themes. Uniquely, EUROCORES networking activities bring together researchers who will eventually conduct their research at the bench together.

ESF is currently streamlining its activities to be in line with the needs of its Member Organisations. During this process, there are no plans to launch a Call in 2013.

► www.esf.org/eurocores

Exploratory Workshops

Each year, ESF supports between 25-40 Exploratory Workshops across all scientific domains.

These small, interactive, output-oriented meetings are aimed at opening up new directions in research to explore emerging research fields with potential impact on new developments in science.

The workshops, which usually last 1-3 days, have a wide participation from across Europe and involve mature scientists as well as young, independent researchers and scholars with leadership potential. The relatively small scale (in terms of people involved) provides an ideal platform for focus on the topic and for all participants to contribute to discussions and plan follow-up collaborative work.

► www.esf.org/workshops

Forward Looks

Forward Looks enable Europe's scientific community, in interaction with policy-makers, to develop medium to long-term views and analyses of future research developments with the aim of defining research agendas at national and European level. Forward Looks are driven by ESF's Member Organisations and, by extension, the European research community. Quality assurance mechanisms, based on peer review where appropriate, are applied at every stage of the development and delivery of a Forward Look to ensure its quality and impact.

This activity has been transferred to Science Europe. Forward Look reports published so far are available at:

www.esf.org/publications/forward-looks

► www.esf.org/flooks



Member Organisation Fora

An ESF Member Organisation Forum is an output-oriented, issue-related venue for the Member Organisations, involving other organisations as appropriate, to exchange information and experiences and develop joint actions in science policy.

Typical subject areas discussed in the Fora are related to: joint strategy development and strategic cooperation with regard to research issues of a European nature; development of best practices and exchange of practices on science management, to benefit all European organisations and especially newly established research organisations; harmonisation of coordination by Member Organisations of national programmes and policies in a European context.

This activity has been transferred to Science Europe. Member Organisation Forum reports published so far are available at:
www.esf.org/publications/member-organisation-fora

► www.esf.org/mo-fora

Research Networking Programmes

Research Networking Programmes (RNPs) lay the foundation for nationally funded research groups to address major scientific and research infrastructure issues, in order to advance the frontiers of existing science. These long-term programmes, subject to selection through an open call and an international peer review process, must deal with high-quality science and demonstrate the added value of being carried out at the European level.

ESF is currently streamlining its activities to be in line with the needs of its Member Organisations. During this process, there are no plans to launch a Call in 2013.

► www.esf.org/programmes

All ESF publications (position papers, science policy briefings, reports, etc) are open access and available at:

► www.esf.org/publications



European Science Foundation (ESF)

The European Science Foundation (ESF) was established in 1974 to provide a common platform for its Member Organisations to advance European research collaboration and explore new directions for research. It is an independent organisation, owned by 67 Member Organisations, which are research funding organisations, research performing organisations and academies from 29 countries. ESF promotes collaboration in research itself, in funding of research and in science policy activities at the European level. Currently ESF is reducing its research programmes while developing new activities to serve the science community, including peer review and evaluation services.

www.esf.org

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C.G.T.; Salter, C.J.; Stoffel, H.; Wilson, W.E. *Astronomy and Astrophysics
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