The European Science Foundation (ESF) is an independent, non-governmental organisation, the members of which are 79 national funding agencies, research performing agencies, academies and learned societies from 30 countries.

The strength of ESF lies in the influential membership and in its ability to bring together the different domains of European science in order to meet the challenges of the future.

Since its establishment in 1974, ESF, which has its headquarters in Strasbourg with offices in Brussels and Ostend, has assembled a host of organisations that span all disciplines of science, to create a common platform for cross-border cooperation in Europe.

ESF is dedicated to promoting collaboration in scientific research, funding of research and science policy across Europe. Through its activities and instruments ESF has made major contributions to science in a global context.

The ESF covers the following scientific domains:
- Humanities
- Life, Earth and Environmental Sciences
- Medical Sciences
- Physical and Engineering Sciences
- Social Sciences
- Marine Sciences
- Materials Science and Engineering
- Nuclear Physics
- Polar Sciences
- Radio Astronomy
- Space Sciences

www.esf.org
ESF has five Scientific Standing Committees composed of leading scientists nominated by the ESF’s Member Organisations. The Scientific Standing Committees are responsible for identifying scientific priorities, formulating strategies, developing research agendas and conducting peer review.

The five Scientific Standing Committees are as follows:

- Standing Committee for the European Medical Research Councils (EMRC)
- Standing Committee for Life, Earth and Environmental Sciences (LESC)
- Standing Committee for Physical and Engineering Sciences (PESC)
- Standing Committee for the Humanities (SCH)
- Standing Committee for the Social Sciences (SCSS)

In line with the ESF Statute a review of the terms of reference, composition and activities of each Scientific Standing Committee should take place at least every five years. In October 2008 the ESF Governing Council agreed that the ESF Chief Executive should appoint an International Review Panel to conduct the review of all five Standing Committees.

Members of the Review Panel were chosen on the basis of a pool of nominations from ESF Member Organisations. They are:

- Professor Heidi Diggelmann, Switzerland (Chair)
- Professor Luisa Cifarelli, Italy
- Professor Fiona Devine, United Kingdom
- Professor Kjersti Fløttum, Norway
- Professor Anne Hallamore Caesar, United Kingdom
- Professor Riitta Liisa Keiski, Finland
- Professor Ana Marusic, Croatia
- Professor Per Olof Östergren, Sweden
- Professor Václav Paces, Czech Republic
- Professor Emile van Schaftingen, Belgium

I would like to take this opportunity to thank the Chair and Members of the Review Panel for their outstanding work, and the staff of the Scientific Units at ESF for providing invaluable support to the process by compiling their self-evaluation reports.
The Review Panel composed of representatives of the research areas covered by the five Standing Committees examined and evaluated the activities of the Committees covering the period 2003 to 2008 and discussed possible future developments with the Chairs of the Committees.

The Review Panel was impressed with the reports of the Standing Committees and noted that the evolution of the activities was in full agreement with ESF’s strategic priorities defined in the ESF Statute of 2006. In particular, all Standing Committees are aware that their role in defining new strategies for their respective fields in the interest of the European and Global scientific community is extremely important.

The rich portfolio of ESF research instruments serves the different needs of a large and diverse range of scientific communities and should be maintained. Reshaping the procedures associated with each instrument might be possible to render their implementation more efficient.

The Review Panel noted that interdisciplinary research has been strengthened during the period under evaluation. A special effort should be made in interdisciplinary activity in topics related to great global challenges. In these areas an extension of the network to countries in the global South would be desirable.

Collaboration and Communication of Standing Committees within ESF and with other European Science Organisations works well at different levels. A particular focus is on areas of common interest and potential overlap. The contact between Standing Committees and the Governing Council of ESF should be intensified in order to take full advantage of the know-how present in the Committees. The relationship of Standing Committees with the ESF Member Organisations is a constant concern and needs continuous attention.

Despite some efforts, young scientists and women are still largely underrepresented in Standing Committees. An active recruiting policy will be needed to accelerate the pace of the necessary improvements.

For the Review Panel Members this Statutory Review was not just a task to accomplish. It was a pleasure to interact with highly motivated people who invest a large part of their time and energy to promote the best possible science in Europe with very limited funds. We all came away with a very positive impression of the work accomplished and the outlook presented for the future. We thank all of them for their efforts and passion and wish them success for their future plans.

We also thank the members of the ESF office for their competent support and pleasant working atmosphere during the whole process of evaluation.
The specific terms of reference of the Review Panel were as follows:

i. Based on the self-evaluation reports of the Standing Committees, other relevant documents and additionally collected information;

ii. Taking into account the statutory remit of ESF Standing Committees (in the previous and current ESF Statute);

iii. Taking into account new developments in the wider context of the European and global research system in which ESF operates.

The International Review Panel will

1. Comment on the achievements of the ESF Standing Committees;

2. Consider the strategies, activities and operations of the Standing Committees in the light of their statutory mission;

3. Recommend such changes to the strategies, activities and structure within ESF that will be appropriate to allow the Standing Committees to fulfil their statutory mission; and

4. Strategies, activities and operations of the Committees in the light of their statutory mission

At their first meeting the members of the Review Panel discussed in detail the self-evaluation reports submitted to them by the five Standing Committees. These reports covering the period of 2003-2008 presented the activities of the Standing Committees in various formats probably reflecting the differences between the scientific communities and disciplines. They were all considered very informative and interesting, but left a series of questions unanswered.

It was particularly noticed by the Panel that Standing Committees responded in different ways to the role defined for them in the ESF Statute approved by the Assembly on 1 December 2006. The Statute (Article IX 1.1) outlines the role of the Standing Committees as follows:

(a) to examine and report on issues of strategic scientific importance within their fields of competence;
(b) to propose programmes or projects for adoption as activities of the Foundation; and
(c) to organise joint activities or carry out other tasks entrusted to them by the Assembly, the Governing Council or the Chief Executive.

The Review Panel therefore wished to meet with the Chairs of the individual Standing Committees to gain further insight into their work during the period under evaluation and their outlook for the future.

In these discussions it became very clear that the five Standing Committees all responded to the new role, but set their priorities quite differently. The first ones function mainly as science evaluators and use the instruments developed by ESF in the best interest of their scientific community. They seem less interested in developing new strategies. The second ones seem eager to participate in the development of new strategies but realise that these discussions take a lot of time which is presently mainly spent on peer review. Some Standing Committees find themselves in a transition period from the first to the second mode of action.

As far as peer review is concerned the spectrum of opinions goes all the way: some Standing Committees think that doing peer review themselves is essential. Others use external experts. Some contribute to peer review support provided by ESF for other organisations (e.g. in 2009 four of the five Standing Committees assisted in the identification of referees for the peer review of three announcements of opportunity of the European Space Agency).

The opinion that peer review of proposals is the essence of a bottom-up process while strategic decisions are mostly reflecting a top-down mechanism seems as popular in the Standing Committees as in research councils of Member Organisations and the academic world in general. The definition of strategic goals by Standing Committees as required by the ESF Statute should be clearly seen as an important bottom-up component of the overall strategy of ESF actions.
5. The balance of ESF instruments and their suitability for the work of the committees

ESF has a diverse range of instruments that facilitate both large scale and small scale research activities. The spectrum covers the funding of various networking activities (the ‘traditional’ unique role played by ESF) to more strategic actions including policy advice and briefings (a more recent ESF development). Not surprisingly, some instruments are more popular than others with Standing Committees and the academic communities they serve. Notable successes across the instruments are flagged in the Standing Committee reports.

A number of common issues arise in relation to the balance of ESF instruments and their suitability for the work of the Committees. The diversity of instruments is valuable as it allows for a mix of top-down and bottom-up initiatives for example. Nevertheless, some consideration needs to be given to whether there are too many instruments across which funding is too thinly spread. Those instruments that are unique to ESF, that are cost effective, add value and have a long-term impact should be enhanced.

At present, there is an overlap between the different research instruments and the distinct purpose of each instrument is not altogether clear. This overlap is internal to ESF. There is also an overlap to instruments that are external (partially or otherwise) to ESF. Of particular note is the overlap of ESF instruments and COST (see Section 8).

Commenting on specific instruments, Exploratory Workshops are the most popular instrument across the Standing Committees. While they are often small scale, they provide a very important networking function, especially for junior scholars, with considerable potential for generating new research ideas. Other instruments enjoy mixed views across the Standing Committees. One instrument – EUROCORES – elicited the stronger views both in their favour (they had funded large-scale research) and against them (ESF is trying to act as a funder when it should not).

It appears the early ambivalence towards a relatively new instrument, Forwards Looks, has dissipated over time. Nevertheless, this instrument is still in need of further development. The main concern is to ensure that Forward Looks are not captured by particular groups of academics with particular research interests. The choice of topic needs to be transparent to enjoy legitimacy. It is crucial to their success that they pull in world leading researchers who can share a vision of the future.

While much has been done to streamline the procedures associated with the different instruments, they are still too complex and too long. They should be simplified (with fewer rules and regulations) and shorter (so decisions are made earlier than later). The time and effort devoted to this activity should be proportionate to the financial support available. Efficiency gains could reduce time spent on processing applications and release more time for strategic activities.

Finally, if ESF decides to overhaul the portfolio of instruments, the purpose of each instrument should be well communicated to the academic community. This will probably require refreshing the ESF website and paper communication. Potential applicants, including the best in the field, should find it easy to identify what instrument best suits what they would like to do in collaboration with others in Europe.
6. Success stories, achievements and failures

When going through the self-evaluation reports presented by the various Standing Committees the Panel noticed that success stories, achievements and failures are not the same for all Committees, although a common denominator can be found.

All reports illustrate how different ESF instruments have been used. All reports mention in particular success stories related to Exploratory Workshops as important and select instruments to help meet the mission goals of the different Standing Committees to foster new ideas in forefront science. The number of applications for Exploratory Workshops has been considerably growing in the last few years. On the other hand, in general an optimum use of Forward Looks (see Section 5) has not been made so far to promote the setting up of new projects and strategies.

All Standing Committees are making efforts to encourage interdisciplinarity and trans-disciplinarity in a spirit of cooperation with other Standing Committees. Here the success is not equally distributed among the various Standing Committees. However common initiatives such as those between the Standing Committees for the Humanities (SCH) and the Social Sciences (SCSS) were very fruitful. Also collaborations between the Standing Committees for Life, Earth and Environmental Sciences (LESC) and Social Sciences (SCSS) as well as between the Standing Committees for Life, Earth and Environmental Sciences (LESC) and the European Medical Research Councils (EMRC) deserve being mentioned as good examples of collaboration.

Among success stories, the White Paper (2007) of the Standing Committee for the European Medical Research Councils (EMRC), presenting the status and future strategy for medical research in Europe, as well as the Position Paper (2007) of the Standing Committee for the Humanities (SCH) and the more recent Strategic Position Paper (2008) of the Standing Committee for Life, Earth and Environmental Sciences (LESC), both assessing strategic science positions in their specific domains, are clear examples of positive contributions to one of ESF institutional goals, namely to provide expert advice on science policy actions. The only drawback is that not all these strategy papers were equally circulated and produced the same impact. Only the European Medical Research Councils (EMRC) White Paper seemed to have had an appropriate official launch and echo.

The publication of newsletters, by the Standing Committees for the European Medical Research Councils (EMRC) and for Life, Earth and Environmental Sciences (LESC), in particular, are very interesting initiatives to provide information on Standing Committees’ current and upcoming activities and represent effective communication tools as far as widespread dissemination and visibility of ESF achievements are concerned. These newsletters have indeed received positive feedback from a large audience of scientists not only from Member Organisations.

Nevertheless, concerning communication, the impression when reading the Standing Committees reports is that no systematic effort is done in the direction of optimising external communication, i.e. towards the overall scientific community and the great public, thus improving ESF Standing Committees visibility. Sometimes there is also a lack of internal communication and interactions (between Standing Committee members and Member Organisation representatives, between Standing Committees and other relevant ESF bodies, or between different Standing Committees).
7. Committee structure (disciplinary remit, disciplinary balance, interdisciplinarity)

7a. Disciplinary remit and balance

The Panel found that the Standing Committees had a good coverage of different disciplines within their research area in their structure and activities. The Panel noted that in some Committees there was less coverage of certain fields, such as high energy particle physics in the remit of the Standing Committee for Physical and Engineering Sciences (PESC). The Panel also noted that some disciplines are covered by more than one committee, or covered solely by a single committee when there could be interest from other Committees. Some of the examples are: a) environment research, covered by both the Standing Committee for Life, Earth and Environmental Sciences (LESC) and the Standing Committee for Physical and Engineering Sciences (PESC); b) chemistry represented only in the Standing Committee for Physical and Engineering Sciences (PESC), although some areas of chemistry are very important for Life, Earth and Environmental Sciences (LESC) activities; c) life sciences and veterinary medicine are represented in the Standing Committee for Life, Earth and Environmental Sciences (LESC), and their presence would be important for the Standing Committee for the European Medical Research Councils (EMRC); d) earth sciences and geophysics are in Life, Earth and Environmental Sciences (LESC) and not covered by the Physical and Engineering Sciences (PESC).

The Panel acknowledges that these imbalances may be due to the scientific interests of the Committee members themselves.

As observed in most public and private sector science institutions the representation of women and younger scientists is inadequate in all Standing Committees, reflecting the situation in most Member Organisations. The Panel however noted some improvement over the last years. This was particularly visible in the structure of PESC, where a predominantly male and older membership has gradually moved to more younger and female members.

The Panel also noted that all Standing Committees had observers from other Committees and from the European Commission or international organisations. The Panel also noted that the presence of international organisations was mostly restricted to the developed countries, such as the US, but not truly global, i.e., taking into account the size and strengths of other important research communities.

7b. Interdisciplinarity

The Panel concluded that the already existing structure of the Standing Committees is quite interdisciplinary and provides a good basis for more interdisciplinary collaboration. A good example of interdisciplinary activities was found in the outreach of the SCH, which is developing transdisciplinary research in emerging areas, such as complexity research; cognitive science; development, environmental and landscape studies; health and welfare research; migration studies; studies into culture and technology; and man-machine interaction.

Standing Committee Chairs expressed a strong wish for more collaboration in interdisciplinary areas and suggested that they have specific meetings dedicated to joint activities in inter- and trans-disciplinary research. The Panel strongly supports these initiatives.
8. Working with other ESF Scientific Committees, including COST, and with ESF Governance

The Panel was told that the regular meetings between the Committee Chairs and the ESF President and Chief Executive function well. The Standing Committees also feel that they get excellent support from their respective Units in Strasbourg. However, several Standing Committee Chairs think that these Units are understaffed.

The Chairs of the Standing Committees would like to intensify their relationship with the Governing Council. They feel that their presence at the meetings of the Governing Council and their short presentations on those occasions do not allow the Council to fully appreciate the work that is being done by the Standing Committees. In their opinion the Governing Council should take more advantage of their expertise.

The Review Panel was told that the collaboration between the Standing Committees works well. Representatives of Standing Committee members are invited to attend each other’s meetings when subjects of common interest are on the agenda (for instance interdisciplinary projects). For lack of time, however, these opportunities do not seem to be used as much as desirable.

The Review Panel got the impression that the Standing Committees collaborate well with the ESF Expert Committees and Boards where scientific overlap occurs.

The collaboration with COST is considered very important and fruitful in the areas of common interests and activities. Regular synergy meetings take place between the partners. COST Actions and ESF Research Networking Programmes are very similar. Scientifically a merging of these instruments would make sense, but the different structures and modes of financing of the partner organisations do not seem to allow such a process.
9. Communication to and connectivity with ESF Member Organisations

The Panel noted that the relationship between the Standing Committees and the Member Organisations varies quite considerably and in general the Chairs of the Standing Committees suggested in their self-evaluation reports and in the interviews that this is an area that could be improved. It is important that lines of communication are clear and well-established and that Member Organisations and their respective research communities are regularly briefed. This cannot though be the responsibility of the Standing Committees alone; there is also the question of how best to get the funding agencies to engage with the work of the Standing Committees and contribute to raising their visibility.

The attempts to realise a closer interaction on strategic priorities between some of the Standing Committees and their Member Organisations has met with success with several examples of good practice including the round table meetings that some Standing Committees organise between their Core Group and representatives from the Member Organisations. These also provide an opportunity to hear where the priorities are for the Member Organisations.

The balance between Member Organisations and Standing Committees in the processes of decision making can be delicate and there can be no uniform approach given the different structures and relationships that pertain in the Member Organisations. The Panel suggests that measures be taken to ensure that it is made clear to members of the Standing Committees that they as individuals have responsibility to their Member Organisations. This should also be taken into consideration when new members are proposed by the Member Organisations.

Most Standing Committees publish information papers, regular electronic newsletters and position papers about their activities and policies which are sent to the Member Organisations in order to be further distributed to relevant scientific communities and much overall has been achieved to improve the presentation, publication and dissemination of outcomes.

Although the Standing Committees are very different and work differently, it is clear that communication between Chairs of the five Standing Committees helps foster synergies. The panel encourages the Standing Committees to further develop their own inter-committee collaboration.
10. Recommendations

During the period under review the five Standing Committees have adopted the new role defined for them in the ESF Statutes of December 2006, without giving up the more traditional role of promoting and controlling the quality of basic science in their respective field.

- The review Panel encourages the Standing Committees to put their highest priority into developing new strategies to promote science of the highest quality in Europe while trying to reduce the load of routine activities (shorten decision processes, avoid duplication of reviews etc).

The Panel also suggests that the Standing Committees, in collaboration with ESF central management, take more initiatives to improve their global outreach, also to the global South.

The rich portfolio of ESF research instruments serves the needs of a large and diverse range of academic communities.

- The Review Panel thinks that those instruments that are unique to ESF, that are cost effective, add value and have a long-term impact should be enhanced.

Some streamlining could be done concerning the number of instruments (without significant loss of diversity) as well as reshaping the procedures associated with each instrument so that they are processed as efficiently and effectively as possible.

Particular attention needs to be paid to any overlaps between ESF instruments themselves, in relation to COST and with respect to other EU activities. Any changes of ESF instruments should be well communicated to the academic community.

As Standing Committees of ESF are only a small part of the science system, efficient communication with all partners within ESF, the other European Science Organisations (COST, EU, ERC, EUROHORCs, etc.) and partners worldwide is essential.

Further development work is required on Forward Looks so they enjoy legitimacy in the academic community and have an impact on European policy makers.
**Interdisciplinary research** has been strengthened during the period under evaluation and Standing Committee Chairs expressed a strong wish for more collaboration in interdisciplinary areas.

- **The Panel recommends that interdisciplinary perspectives are integrated – within the Committees and between the Committees – especially in topics related to the great global challenges.**

The Standing Committees might want to organise specific meetings dedicated to joint activities in inter- and transdisciplinary research. In addition, the Panel suggests that interdisciplinarity is further emphasised in calls for project proposals as well as in the evaluation of proposals.

**Collaboration and communication** is a constant concern in an organisation as complex as ESF. The Review Panel was told that collaboration and communication between Standing Committees, the ESF President, the Chief Executive and Supporting Units functions well. The Standing Committees however feel that the Governing Council of ESF does not make full use of the wealth of expertise that they can offer.

- **The Panel suggests that conditions are created that might allow stronger interactions between Standing Committees and the ESF Governing Council.**

The relationship between Standing Committees and Member Organisations has been an important concern in the past and measures have already been taken to render Member Organisations aware of the importance of the selection of adequate representatives to serve in Standing Committees.

- **Round table meetings between the Standing Committee Core Groups and representatives from the Member Organisations should be further developed. These meetings should have issues related to European science policy on the agenda.**

A primary task for the Standing Committees should be providing qualified science policy advice to Member Organisations. Round table meetings between Standing Committee Core Groups and the Member Organisations should also discuss – in mutual understanding – how to improve communication and distribution of information.
As in most science organisations gender and age balance is unsatisfactory in Standing Committees. Improvements can be observed in some of them, but this process is very slow and will not succeed unless an active recruiting policy is put in place.

- The Review Panel suggests that Standing Committees and Member Organisations, together with ESF management, define clear targets for the representation of women and young scientists to be reached within the next 3-4 years.