

Annual Report 2007





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President's Message: lan Halliday

2007 has seen a major change at the top of ESF. At the end of March Bertil Andersson left us for the lush tropical charms of Singapore. John Marks took over as Chief Executive. Finally the new Chief Executive Marja Makarow took the reign at the start of 2008.

We owe Bertil many thanks for his many achievements with ESF. I pick three. The capabilities, management and environment within the ESF organisation improved markedly. Bertil was heavily involved in the restructuring of the COST domains and peer-review. This is seen as a real improvement and the ESF relationship with the COST Committee of Senior Officials also continued to grow. The ESF stewardship of the EURYI scheme was seen to be an outstanding success with peer-review of the highest standard. Imitation being the highest form of flattery, we were thrilled that the ERC took the style and methodology of EURYI to heart in its first round of funding.

Indeed ESF should claim its share of the praise in making the case for the creation of the European Research Council (ERC) which I see as a beacon of hope on the European science landscape.

John Marks, equally, has served ESF well during his tenure of the Chief Executive post. The most contentious area was the negotiations over the new COST contract (for effectively e210 millions). The satisfactory conclusion of these negotiations was a major coup.

Our new Chief Executive Marja comes from a background in Finland that encompasses major University involvement in both research and research management as Vice-Rector in the University of Helsinki and in National Science Policy making as a member of the Finnish Government's National Council for Science and Technology Policy. On the European scene she has been actively involved with EMBO. I welcome her here to ESF and wish her good luck in her new post.

The year has also seen the implementation of the Governance changes agreed in 2006; back to back Governing Council meetings with EUROHORCs; the new Governing Council Steering Committee; the new Science Advisory Board.

The year has seen delivery of interesting Forward Looks and policy advice from Systems Biology to Arctic environmental studies. I thank all the committees and panels that make this work both possible and influential. We continue to improve our relationships with our Member Organisations to increase the relevance of this work and to maximise the impact.

In the wider context the series of meetings held under the Portuguese Presidency, allied to the dynamism of Minister José-Mariano Gago, has moved the European Agenda forwards. Given the success of the ERC the expectant gaze of European Science has turned to the EUROHORCs and national budgets. How can they contribute to the ERA in the style pioneered by EURYI? Whatever the answer I am sure ESF will contribute.

2007 – Steps to position ESF in the European Research Area

Bertil Andersson, who said farewell to ESF as Chief Executive in March 2007, gave 2006 the motto "From Strategy to Implementation". In 2007 we took further steps on the path of implementing the *Strategic Plan 2006-2010*, bringing us closer to the Member Organisations and further building their trust. Especially at the strategic level, we invested considerable effort.

We started to professionalise our flagship instrument Forward Looks by taking a more systematic approach to identifying topics of strategic concern to our Member Organisations and by introducing foresight methodologies. During the year we initiated Forward Looks on topics such as Investigator Driven Clinical Trials, Pensions and Health as well as Religion and Belief Systems. In each case the focus is on the research agenda while at the same time each topic is of considerable societal interest. The Forward Look report Systems Biology: a Grand Challenge for Europe has been brought to the attention of the research organisations in Europe in order to discuss concrete actions.

ESF has notably strengthened its collaboration with EUROHORCs (European Heads of Research Councils) in 2007. Our initiative jointly with EUROHORCs and the Czech Science Foundation to start a debate in 2006 on European level Peer Review has resulted in a Member Organisation Forum with active participation from Member Organisations addressing best practices in peer review and developing shared (database) resources for peer review. This has led to the increasing number of requests from the MOs to assist their peer review of national programmes.

The 2007 EURYI Award ceremony in Helsinki, the fourth and last one, demonstrated the enthusiasm and appreciation for EURYI by new and previous awardees and signalled trust in the quality of the ESF peer review procedures for the prize. EURYI has served as a prime example of the successful joint operation between ESF and EUROHORCs.

Together with the EUROHORCs we published a response to the EC's Green Paper on the Future of the ERA. In a next step a joint Task Force will define concrete activities that we will undertake together to contribute to building the European Research Area.

As the development of science has undoubtedly a global impact, the European Research Area (ERA) would only make sense if it is conducted in a global context. The first ESF Science Policy Conference in November was therefore dedicated to exploring the ERA as part of a Global Research Area (GLOREA). Also in the global arena ESF could serve as a platform for its Member Organisations, in order to organise the interaction with the non-European countries in a more efficient and effective manner.

In 2007 the world conference on Research Integrity held in September in Lisbon, marked ESF's return to the arena of best practice in research conduct which we entered in 2000 with the Science Policy



Briefing on Good Scientific Practice in Research and Scholarship. The joint initiative with the US Office of Research Integrity has generated a lot of healthy discussion and debate within the science and science policy community worldwide. It was the first global event that allowed researchers and organisations to confer on such a pivotal issue. The Conference is followed up by a Member Organisation Forum to develop the role of our Member Organisations in these matters.

ESF's central role in scientific networking in Europe will continue also under FP7 as a result of the successful conclusion of the 210 M€ COST contract. The negotiations required a major effort from all parties involved with an outcome of which we can be proud. The good interaction with the European Commission added a positive note to the not always easy negotiations.

The focus on strategy was not just confined to external activities. Our Standing Committees have successfully made the transition from scientific coordination and proposal review to developing strategic directions as is illustrated by the EMRC White Paper on the present status and the future strategy for medical research in Europe and the Position Paper published by the Humanities Committee on the role of the Committee in the changing context of the Humanities. Only through this strategic thinking can our Committees influence the European science agenda in their disciplinary areas. Central to our operations is the quality of the staff. Our human resources policy was improved by introducing a performancebased salary system and a job classification with salary levels based on relevant markets such as our Member Organisations. In addition training of staff in management and foresight will give us a more professional edge in the ever-changing environment.

ESF membership continued to grow. The National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia, the Agence National de la Recherche of France and the Slovenian Research Agency joined ESF.

I want to thank the staff of the ESF in Strasbourg, Brussels and Ostend for their support during this year of transition under my leadership. ESF is also extremely grateful to the Chairs of Standing Committees and the Expert Boards, who are the real driving forces of our science endeavours. Finally I would like to thank Bertil Andersson for his dynamic contributions and trail-blazing efforts to push ESF forward.

I welcome our new Chief Executive Professor Marja Makarow joining us in the beginning of 2008. Her extensive experience in research and science policy will give us the edge to rise to the challenges facing the ESF.

Dr. John Marks Chief Executive 2007

The 2007 Assembly

The 34th annual Assembly of the European Science Foundation (ESF), attended by over 70 senior representatives from the ESF Member Organisations and other international bodies, took a number of important decisions of the organisation in order to strengthen the future.

The Assembly, which took place on November 30 at the Maison de la Région Alsace in Strasbourg, unanimously approved the admission of three new Member Organisations (MOs), bringing the total number of members to 77 from 30 countries – a move that will further secure ESF's position as an important force in the European research landscape.

The new Member Organisations are the National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia, the Agence National de la Recherche of France and the Slovenian Research Agency, who join the ESF with effect from 1 January 2008.

On informing the delegates of these organisations of the Assembly's decision, ESF President Professor Ian Halliday remarked "We welcome you very warmly and we hope we can work together successfully in the future, for the benefit of your organisations, for the benefit of ESF, and most importantly for the benefit of European research".

Another major decision made by the Assembly was to approve two new Vice-Presidents, Dr. Arnold Migus, Director General of the French CNRS, and Professor Matthias Kleiner, President of the German DFG, for a three-year period, starting from 1 January 2008. They would replace Dr. Richard Dyer and Professor Katherine Richardson Christensen.

In his annual address to the Assembly, Dr. John Marks, ESF Chief Executive, highlighted the wide range of ESF's successes during 2007: "It has been highly rewarding to see the growing engagement of MOs and the increasing support for both the strategic role of ESF through Forward Looks and for the researcher driven collaborative research programmes EUROCORES," Dr. Marks told the Assembly.

He pointed out that there is a growing evidence of the increased trust of Member Organisations in ESF especially when it comes to the relation with EUROHORCs, both with the research funding agency members and the research performing agency members of EUROHORCs, the strong support of EUROHORCs for the strategic role of ESF and the support for EUROCORES as the main instrument for research collaboration. There was also increased interaction with the Academy members of ESF.

Dr. Marks highlighted the following examples to substantiate this claim.

- The establishment of the Forward Look (FL) on Investigator Driven Clinical Trials with the support from major players in the medical field: such as the UK's Medical Research Council, INSERM, Deutsche Forschungsgemeinschaft (DFG) and the US's National Institutes of Health (NIH).
- The EURYI Awards 2007 with the enthusiastic support and participation of new and previous Awardees and the strong advocacy for the instrument by Nobel Prize winner Tim Hunt. A sign of trust in

the quality of the ESF peer review procedures. (p. 30)

- The successful conclusion of the 210 M€ COST contract which shows a sign of trust in ESF's ability to manage efficiently, and with high quality, financially and contractually complex contracts and provide efficient management support for this key European networking instrument. (p. 184)
- The publication of research articles from EUROCORES in leading high impact journals. A sign that EUROCORES are attracting excellent researchers and producing excellent results. (p. 87)
- The role of ESF in initiating and now coordinating new science in Life in Extreme Environments – this demonstrates the ability of ESF's Committees, Standing and Expert, to collaborate and generate really new interdisciplinary frontier topics. (p. 51)
- The high profile of attention for the Conference on Research Integrity in Lisbon. It shows the ability of ESF to create worldwide partnerships to address important topics. (p. 85)



The 34th Assembly of ESF took place in Strasbourg on 30 November 2007.



The 2007 Assembly

ESF's Science Advisory Board

Dr. Marks also informed the Assembly about the activities of the newly created Science Advisory Board (SAB). The SAB held its first meeting on 26 September in Copenhagen, where it discussed EUROCORES themes and Forward Look topics, making recommendations to the Governing Council, and also the developments of its wider role within the ESF.

The Board is chaired by Raimo Väyrynen, the former President of the Academy of Finland, with a scientific high-level membership of five other independent members covering the whole research spectrum appointed using nominations made by the ESF Member Organisations, plus the five Chairs of the ESF Scientific Standing Committees, acting first and foremost in their scientific capacity.

Collaboration with groups of ESF Member Organisations: EUROHORCs

The closer working relationship with the EUROHORCs has been significantly developed and strengthened during 2007. In addition to the relatively simple expedient of greater coordination of EUROHORCs and Governing Council meetings, the ties have developed strongly in a number of practical and strategic ways.

Building on the mutual experience in EUROCORES and with EURYI, EUROHORCs have made common pot peer review mechanisms a priority and have strongly supported the continuation of EUROCORES, in revised and new models, after the end of the FP6 coordination contract.

In a major strategic opportunity, the ESF and EUROHORCs established a joint working party to provide a joint response to the EC's "Green Paper on the Future of the ERA". The response identifies the need to consider the ERA as a richer landscape than the Green Paper indicates, and indicates that ESF and EUROHORCs will take responsibility for implementing their part of the ERA agenda and have identified an 11 point agenda. (p. 28)

Collaboration with groups of ESF Member Organisations: ALLEA

Another significant group of ESF MOs, the academies, also collaborates in ALL European Academies (ALLEA.) ALLEA is represented in the Governing Council by an observer. The Strategic Plan announces that ESF will address the needs and wishes of its various categories of members. The role of the Academies is of particular significance when it comes to the strategic and quality assurance roles of ESF, where the academies have been especially invited to nominate candidate members for the Science Advisory Board and they could potentially play a significant role in Forward Looks.

Together with the President of ALLEA, the ESF Chief Executive has sent a letter to those Academy members of ESF which are also ALLEA members. In that letter academies were invited to share their needs and expectations regarding the role of ESF.

The 2007 Assembly

A significant number of responses were received and served as input to a workshop between ESF and the academies in 2008.

The European Commission

ESF and the Commission have interacted over the years in multiple ways and the start of the implementation of FP7 has been no exception. High-level staff meetings now take place on a regular basis, covering not just direct relationships (e.g. COST and ERA-NET contracts), but also exchange of information on strategic developments at ESF and the EC, and the potential for the use of ESF instruments and expertise (e.g. Forward Looks, scientific reviews, peer review) to assist in delivery of the mutual ERA development objectives of ESF, its MOs and the EC.

Standing Committees are acting as "quality gatekeepers" in a major RI Survey and the transfer of know-how and best practice from the EURYI scheme to assist the ERC in establishing their programmes and procedures.

Other Partnerships

A major highlight in ESF's work with partners outside its membership was when more than 300 participants from 52 countries gathered in Lisbon in September for the First World Conference on Research Integrity (p. 85). The event was initiated and organised by the European Science Foundation (ESF) and the US Office for Research Integrity (ORI), together with the Portuguese EU Presidency. The conference itself marked a milestone for the science community as it linked, for the first time, all the concerned parties in a global effort to tackle fraud, falsification and plagiarism in science and share their growing concerns over misconduct in science. Alongside the initiatives taken by other participants, the ESF with EUROHORCs has published a compilation of policies of its MOs in Europe and this, and together with the Conference report, will form the basis of an MO Forum.

Instruments

The ESF Strategic Plan identifies the instruments with which ESF will implement the strategy. In this section illustrative highlights will be presented for the various instruments. The section is organised according to the three strategic pillars: strategy, synergy and management.



Strategy

Forward Looks

ESF continues to fine tune Forward Looks (FLs) in all phases such as its interaction with the Member Organisations in the identification of topics, professional management by the Office of FLs, and attention from the beginning for the possibilities of implementing the recommendations from the Forward Looks have all been addressed during the year. In January 2007 a workshop to shape a structured approach to Forward Looks was held, involving the US National Academies of Sciences, NSF, OECD, ESF FL Chairs and Member Organisations with experience in foresight. In September a workshop with Directors of Strategy of MOs was held to discuss ways of improving the identification of FL topics and how the implementation in MOs could be promoted.

In August the Forward Look report Systems Biology: a grand challenge for Europe was published. The report concludes with a set of specific recommendations that aims at bringing together Systems Biology efforts in Europe. The report, which includes 12 essays from the scientific experts in academia and industry, illustrates "Europe's potential to be at the forefront of pinpointing the systemic causes of diseases" aiming at the rational design of targeted therapies and drugs. (p. 45) Building on the report, an ESF Task Force of nine experts in the field, has published a series of recommendations including setting out a road map to establish a pioneering Systems Biology research programme in Europe.

Exploratory Workshops

The Exploratory Workshops instrument continues to be highly valued by the scientific community. 172 applications were received in 2007 and 64 were selected for funding. Between 2005 and 2007 a reduction in the number of applications was observed but in the opinion of Standing Committees the quality of applications remained very high. As the number of events funded annually stays unchanged the success rates increased from 20% in 2005 to around 30% in 2006 and 2007. In 2007 an information campaign was conducted to promote the new profile of the Exploratory Workshops being more focused on exploring frontiers in science and developing follow-up strategic actions. This was to result in redoubled interests in the instrument in 2008.

The recent changes in the management of the awarded workshops ensure that the instrument plays an increasingly important role as an input into the strategic work of the Standing Committees.

The use of the ESF Pool of Reviewers, as reported last year, has continued to show a very significant improvement in overall quality and efficiency in peer review for the instrument.

MO Fora

MO Fora is a response to the clearly expressed need by MOs to be able to meet and discuss topics of common interest and is assuming a greater importance with the development of a greater awareness by MOs of the breadth of ERA issues they should address. The instrument is developing by means of an annual call, approval and reporting to the Governing Council.

The 2007 Assembly

The MO Forum on Peer review had its kick-off meeting in October 2006 with a Conference *Peer Review – its present and future state* and is continuing to develop. The Fora approved in April 2007, Evaluation of Funding Schemes and Research Programmes and Research Careers, each attracting interest from about 40 MOs and other stakeholders, held or will hold their kick off meetings in October and November respectively.

Research Infrastructure at the Corporate level.

The results of the EC–ESF-EUROHORCs collaboration on the (2nd) Survey of current research infrastructures at the European level of scale and excellence were presented by ESF at the major RI Conference held during the German EU Presidency in Hamburg in June. Since it focuses on current operational infrastructures, the Survey has been complementary to the ESFRI roadmap exercise. Discussions are well advanced for the launch of an on-line database of European RIs, using as its starting point the survey, in which ESF Standing Committees would act as quality gatekeepers for new entries, as they did for the survey. Discussions are also ongoing concerning the possibility for ESF contribution in future ESFRI Roadmap contexts, either in terms of Forward Looks or reviews of existing RI landscapes.

Other RI activities have included: participation in ESFRI meetings; work with Member Organisations in coordinating approaches to Research Information Systems (CRIS systems); and participation in initiatives related to open access to research data and the permanent preservation of research data.



Synergy

EUROCORES

EUROHORCs the and Governing Council have given their strong support to EUROCORES as their mechanism for cross-border research cooperation of choice. There has been a debate on both the structural models and funding models of EUROCORES and in addition to a further streamlined "classic" EUROCORES a new TOP-CORES model should operate in parallel. It combines further developed science programme proposals with the building of commitment in the funding organisations. This should shorten decision time lines to 9 months. The Collaborative Research Toolkit, a selection of operational processes and expertise representing best practice from EUROCORES and other programmes, is now available to MOs. Though the long-term objective for the funding of EUROCORES research remains a full common pot, for the medium term funding organisations have agreed to funding solutions on a case by case basis.

Currently 30 EUROCORES Programmes are in their active phase, representing 125M€ of research funding, supporting more than 5500 scientists and involving 66 funding organisations. The early Programmes, such as OMLL, SONS1 and EUROMARGINS are now reaching the end of their life cycle, and it is rewarding to see the increasing number of high impact publications emerging. Following the 2007 Call, six new EUROCORES themes have been selected, on the recommendations of the Science Advisory Board. With the EUROCORES coordination contract from the Commission coming to an end in 2008, MOs and ESF are now preparing for the funding of scientific networking and coordination costs from their own resources.

Research Networking Programmes

The 2006 Call received a substantial increase (nearly 50%) in the number of proposals, at 132, indicating both the continuing popularity of this classic à *la carte* ESF instrument with the scientific community, and the increasing success of the common call. Following lessons learnt with the rather disappointing viability rate of 8, launched in early 2007, from 18 propusals recommended to MOs in response to the 2005 call, a lower number of 15 from the 2006 Call are presently with MOs for funding consideration. The response to the 2007 Call will be reported at the Assembly.

ESF Conferences

2007 has seen the second year of development of the partnership strategy for ESF Research Conferences. There has been growth, but also a consolidation taking into account successes and lessons learnt from the initial start-up period. In 2007, 23 conferences within the main body of the scheme have been organised, as well as the highly successful World Conference on Research Integrity reported elsewhere. A number of new partnerships are being discussed which will allow a gradual expansion of the Scheme, towards the strategic target of 40, and additional World Conferences, such as a Europe-Africa Conference in partnership with the International Council of Science, the Association of African Academies and several Academies in Europe, are also in development. Early in 2007. the ESF Conference Unit relocated to the ESF-COST Office in Brussels in order to increase operational efficiency and enhance synergy between COST and ESF.

The 2007 Assembly

Management

EuroBioFund

EuroBioFund (EBF) is an initiative hosted by the ESF and funded by the Sixth Framework Programme to facilitate the development of research programmes for emerging life sciences areas. Following the first EuroBioForum, held in December 2006 in Helsinki, EBF launched a second Call for Expressions of Interest (Eols) in February. At the close of the Call, 23 eligible Eols were received, representing 175 proposers from 25 countries, including the US and Canada. Following review, six groups were presented at EuroBioForum 2007 on 5-7 December in Lisbon, in a Portuguese EU Presidency event.

On 27 September in Helsinki, Nobel Prize winner Tim Hunt gave a stirring endorsement of the Scheme as he presented 20 excellent young investigators with their Awards of more than 1 M€. This was the fourth and final year that EUROHORCs and ESF have made these EURYI Awards. Reward excellence and the potential for scientific leadership, allow researchers to create their own research teams in independence, attract young researchers to continue their career in Europe, these were the goals of EURYI. The Scheme itself has become renowned amongst Funding Agencies, top scientists and applicants through its high quality and very competitive selection processes and its high value awards. EURYI has demonstrated that common peer review and common pot mechanisms without juste retour are possible, with over one third of the about 100 M€ scheme budget moving across national borders. The 4th Call was the last under the EURYI Scheme, though its final awards will continue, with ESF providing basic coordination, until 2013. The reason for this is that the European Research Council has decided to take forward the objectives of the Scheme at a considerably higher level of funding, allowing more grants to be given out. Experience from EURYI has been transferred to the European Research Council and has formed a template or informed a significant part of their Starting Investigator Research Grants scheme.

The closing of the FP6 contract and the implementation of the 210 M€ FP7 contract between the ESF and the European Commission, signed in July 2007, were a major focus for the first part of 2007. The new contract sets out a series of work packages that focus on improving conditions for COST Actions and Domain Committees, the development of new ideas for interdisciplinary science initiatives, a better exploitation of the European "Near Neighbours" policy and a stronger focus on outreach and communications. The increased annual budget and duration of the FP7 contract result in an expanded scope of activities, with a consequent restructuring of the COST Office, the introduction of new management systems and new activities, and a renewed focus on ESF-COST scientific synergies.

The changes implemented during the FP6 period, notably in proposal generation and assessment and of the Domain Committees, will be carried forward.

The collection date of 30 September 2007 resulted in about 500 Preliminary Proposals for new COST Actions of which 25 were approved in June 2008. The previous collection date in March resulted in the approval of 25 new Actions in November 2007.



Operations

Quality assurance is a key to trust in ESF's procedures, where a crucial aspect is selection of referees and Committee and Panel members. An important step in improving the quality of the peer review processes has been the creation of the ESF pool of reviewers. Following its successful introduction in

2006 for its classic bottom-up instruments, ESF refreshed the Pool in 2007 and continues to see benefits from improvements in both the quality of the review process and the efficiency of office procedures. Being part of the pool is considered an honour by many scientists. IT tools to improve the electronic submission and handling of proposals in all phases, are under constant development.



In recent years, ESF has received an increasing number of requests from MOs and partner bodies for assistance and support in peer review. Such requests are a recognition of ESF's reputation and expertise. The level of requests has reached the stage where the Governing Council has approved a range of measures and principles which will allow ESF to respond more effectively and professionally in the future.

On another level, ESF is looking to improve other aspects of its handling of instruments and activities. To do this a system of Performance Indicators has been developed and is being refined which, alongside the use of "Scorecards", provides information on efficiency and the use of resources. The data and trends enable ESF management to address use of human resources and matters of concern and Governance to address matters of balance in the use of ESF's budget.

Communication

Putting Member Organisations in the centre of ESF's mission is not just a matter for the science and strategic activities of ESF. It is an even more basic priority for ESF's mission that what ESF is doing and what it can offer is communicated to the MOs. During 2007 ESF has launched its completely redesigned website and a corporate level Member Organisation Newsletter which it publishes twice a year, following the Governing Council meetings in April and September/October.

The Communications strategy has seen the visibility of ESF increase, particularly with high profile news items (e.g. Nanomedicine, EURYI) gaining wide press coverage. Increasing visibility and contacts with MOs

own communication teams is also an important part of that strategy and the ESF Communications team has established a network with their MO counterparts to both improve information flow and to act as a "mini-MO Forum" on communications issues.

Finance

On the basis of the achievements of 2006 in respect of the accounts and budget framework, 2007 saw the full initiation of the annual cycle of strategic budget discussions taking place in the "new look" Governing Council, with the broad strategic directions being debated in April and their financial consequences being debated and decided in September. The Governing Council gave its approval to a budget which will reach a level of about 50 M€, with about 7.4 M€ coming from MO contributions to the General Budget.

In the last week of July 2007 the European Commission and ESF signed the contract for ESF to continue to provide and manage the administrative, technical and scientific secretariat of COST (European Cooperation in Science and Technology) under the Seventh Framework Programme (FP7). This contract covers the first 12 months of COST operations with a budget of 30 M€. This initial agreement will be continued smoothly through appropriate amendments along the FP7 period until June 2014 with an overall funding of at least 210 M€. The signing of this contract represents a massive vote of confidence in ESF, and provides further impetus for the increasing professionalisation of ESF's financial, HR and management services. At the same time, ESF, with the great support of colleagues in the COST office, successfully closed the COST FP6 contract.

As one of its moves to implement best practice in management, and with the full support of the Finance and Audit Committee (FAC), ESF has begun to develop a Risk Register which identifies crucial issues and potential "failure points" in ESF's activities, especially in terms of financial impact and legal liability. The creation of the register and its monitoring will allow ESF senior management to identify, manage, and where necessary implement remedial action, on business critical issues.

The ESF offices

The rapid growth in recent years of ESF staff in Strasbourg and Brussels to a total of 136 has largely ceased, with a few additional specialist positions being added in response to strategic priorities e.g. science staff to support the Forward Look instrument and dedicated positions to deliver specific aspects of the COST work plan.

Almost two thirds of the staff is directly or indirectly employed through funding from external contracts, mainly from the Commission. With the assistance of our MOs, we hope to be able to maintain the excellent level of science support provided by the EUROCORES Coordinators after the termination of the contract with the Commission at the end of 2008. ESF's Human Resources strategic plan is being implemented, with increased management training, improved clarity of structure and position responsibilities as well as accelerated introduction of a performance based remuneration system across the office.

In order to strengthen the links with Member Organisations, ESF has created positions for short term project-oriented secondments from Member Organisations for periods of 4-6 months. Six secondees from Italy, the Netherlands, Finland and Hungary have been hosted so far and other selections are in the pipeline.

In line with this policy, the ESF has also agreed to act as an international host in the fellowship programme of the Spanish MEC.

A call for tender to identify potential suppliers for the important ESF Information Systems project, focusing on the modernisation of many office processes and multiple information systems, including those at the COST office, has been issued in the Official Journal of the European Union in November 2007.

European Science Foundation says farewell to its Chief Executive Bertil Andersson

After more than three years as the Chief Executive of the Strasburg-headquartered European Science Foundation (ESF), Bertil Andersson left in March 2007 for the Far East to take up the post of Rector at the Nanyang Technological University in Singapore.

Professor Andersson's works have helped the 34-year old ESF further develop into the science platform that its 77 Member Organisations can count on to implement a pan-European science agenda through interdisciplinary science activities.

In the course of his tenure with the ESF, Professor Andersson has been instrumental in some of the most significant restructurings that have taken place over the organisation's more than three decade-old history. One of them was the introduction of the Strategic Plan for 2006–2010 which was resulted from the extensive research and consultation with the Member Organisations (MOs).



Also during his time at the ESF Professor Andersson led the way in changing the organisation's governing structure which had long been considered to be overly complicated.

Before joining the ESF, Professor Andersson was a professor in Biochemistry and the Rector of Linköping University, Sweden (1999-2003). He was the head of the Department of Biochemistry (1987-1995), Dean of the Faculty of Chemical Sciences and the pro-dean of the Science Faculty, (1996-1999) at the University of Stockholm. He has been with the ESF since the beginning of 2004.

ESF names Sir Roderick Floud as the Chair of the Social Sciences

The European Science Foundation named Professor Sir Roderick Floud from London Metropolitan University as the Chair of the Standing Committee for the Social Sciences (SCSS) in May 2007.

Professor Floud, who is the President Emeritus of London Metropolitan University, received a knighthood for services to higher education in the Queen's Birthday Honours in 2005.

He is an economic historian and author of books and articles on technological change, the use of IT in the study of history, and on the evolution of technical education and on changes in human height, health and welfare which have drawn on the expertise of human biologists, demographers, economists, nutritionists, physiologists and others to create the new discipline of anthropometric history.



Professor Floud started his position in May 2007.

ESF names Professor Jean-Pierre Swings as New Chair of the Space Sciences Committee

The European Science Foundation (ESF) named Professor Jean-Pierre Swings as the new Chair of the European Space Sciences Committee (ESSC) in April 2007.

Professor Swings replaced Professor Gerhard Haerendel who ended his term as Chair on 10 May 2007. Professor Swings completed his doctorate and postdoctoral training at Liège University, Belgium in 1974. He held two postdoctoral fellowships in Boulder, Colorado and Pasadena, California. His current research interests include extragalactic astrophysics; very large telescopes and instrumentation; space astrophysics and solar system exploration. He is a member of a number of prestigious international organisations including the International Astronomical Union (IAU), where he was formerly the General Secretary, the European Space Agency (ESA) and the European Southern Observatory, where he has chaired several working groups and task forces.

In addition he is the recipient of a number of awards including an award from the International Academy of Astronautics and the Chevalier de l'Ordre des Palmes Académiques (France) in 2005. He has published over 170 scientific publications as author or co-author.



International Review Panel commends ESF's efforts in EUROCORES

A detailed Review Panel Report submitted to and approved by the ESF Governing Council on 19 - 20 April 2007 outlines how to best develop the EUROCORES (European Collaborative Research) Scheme.

The Scheme currently has 30 active programmes which each encompass between three to 16 Collaborative Research Projects. It offers a flexible framework for researchers to come together to tackle scientific questions which are best addressed in larger scale collaborative research projects. Since its creation in 2001, the EU-ROCORES Scheme has developed into a widely accepted tool for interdisciplinary scientific cooperation on a European level and a means for improved interaction between national research funding agencies.

"EUROCORES leads to very high-quality projects involving worthwhile cooperation or researchers from across Europe," commented the Irish ESF Member Organisation, Enterprise Ireland.

As part of the Scheme Review Panel Report, which also included an independent survey, the EUROCORES Scheme was identified as the instrument of choice for fighting the fragmentation of research in Europe. This is an important starting point for developing the Scheme. Seventy per cent of the science community feel that the Scheme is a useful instrument which complements other EU instruments, but is more open and flexible in terms of the subject areas, types of project and types of networking activities supported. Out of the 33 consulted ESF Member Organisations, 25 were positive towards the EU-ROCORES Scheme but would like to see some improvements.

"ESF as an agency of the agencies can offer a healthy new system," said Reinhard Grunwald, Chair of the Scheme Review Panel, at the ESF Governing Council.

However, while the survey found that EUROCORES has considerable strengths, it has yet to build a high profile and credibility within many communities. The Scheme is not well known within many scientific communities mainly due to its small scale compared to other EU instruments and also due to the fact that EUROCORES is still a relatively new scheme. Other areas for improvement were the lengthy timescale of procedure and the risk of duplication of national efforts.

"EUROCORES is now, after a trial and error period, a reasonably well-working instrument; it would be a waste of resources to totally discontinue it. It must find its own and unique role at EU level cooperation," said the Finnish ESF Member Organisation, the Academy of Finland, when asked to comment on EUROCORES in a questionnaire sent out by the Panel in November 2006.

The Report identifies key areas for improvement through three operative models which aim to improve the speed and reliability of the Scheme procedures, by adding features such as a common pot which would improve and speed up the funding process, a binding peer review and clearer procedures. It was also recommended that the theme selection process could be shortened by requiring more detailed theme proposals and by linking these to other ESF instruments such as Forward Looks.

Nevertheless, the Scheme is also described as more scientifically driven, more focused on fundamental research, less politically motivated, more suitable for collaboration between small teams, and less bureaucratic than EU instruments. It is considered to support high quality work, and employ good processes. "EUROCORES stimulates free/bottom up European cooperation as a complement to the more directed initiatives of the European Commission," commented the Swedish Research Council.

The report concluded that developing the EUROCORES Scheme into a more competitive instrument to rival the best and most creative on the European scientific stage and meet the challenges ahead is the only way forward. The EUCORORES Scheme needs to maintain the cuttingedge in a world where international scientific cooperation has developed and become the most fruitful and promising arena for scientific endeavours.



The European Science Foundation and the European Commission sign contract for COST in FP7

In the last week of July 2007 the European Commission (EC) and the European Science Foundation (ESF) signed the contract for ESF to continue to provide and manage the administrative, technical and scientific secretariat of COST (European Cooperation in Science and Technology) under the Seventh Framework Programme (FP7). The Seventh Framework Programme foresees 210 M€ in support for COST with the possibility of another 40 M€ depending on a positive mid-term evaluation in 2010.

The decision strengthens the working relationship between COST and ESF, two principal networking organisations in Europe which have been interacting at various levels for more than three decades. It builds on the previous EC-ESF contract for COST under FP6, signed in 2003, and guarantees the continuation of COST activities through FP7. The initial provision of 210 M€ - compared to 80 M€ in the previous contract – gives COST the opportunity to expand activities and to enhance the support of the COST Domain Committees (the nine scientific and technical committees) as well as of the COST Actions (the networks of researchers).

The contract sets out a series of work packages which reflect the increase in funding through new and expanded activities and the number of running Actions, the development of new ideas for interdisciplinary science initiatives, a better exploitation of the European "Near Neighbours" policy and a stronger focus on outreach and communications.

"The negotiation of this contract and the transition between FP6 and FP7 were two challenging processes. The ESF team's commitment to COST, with its experience of managing such a complex operation, a constructive and efficient cooperation with the European Commission and with the COST Committee of Senior Officials (CSO) have been essential in allowing the successful completion of this important agreement" commented David Weber, ESF's Director of Administration and Finance.

"This agreement leads to a three-win situation – win for the ESF, win for COST and most importantly a win for the European research community thanks to the synergy that the two organisations created by working together. All of us are very happy and proud of the outcome" stated Dr. John Marks, ESF Chief Executive.

"The contract and the increase in funding is indeed a strong vote of confidence towards the ESF-COST cooperation," continues Dr. Martin Grabert, Director of the COST Office. "With this contract, we can truly capitalise on previous successes. We will not rest on our laurels, however, and continue to focus on cross-disciplinary

initiatives and strengthening the synergy between the various research actors in Europe."

"I very much welcome the positive conclusion of the negotiations for the signature of the EC-ESF contract for COST," commented the President of the COST Committee of Senior Officials, Professor Francesco Fedi. "COST has always been a unique instrument with a strong role to play towards the development of the ERA. Typical COST features such as its flexibility and bottom-up approach make it a perfect platform for innovative ideas on the frontiers of science.





A comprehensive ERA needs full involvement of non-governmental stakeholders, ESF & EUROHORCs comment to EC's Green Paper

The European Commission needs to engage and focus more on the national research funding and performing organisations, the private sector, and the non-European research systems for the development of the European Research Area (ERA) if it is serious about establishing a comprehensive ERA, according to the Heads of European Research Councils (EUROHORCs) and the European Science Foundation (ESF) in a joint response.

The response came in September 2007 after a request by the EU Science and Research Commissioner Janez Potočnik to seek public comment and recommendation for the Green Paper on the ERA.

"The Commission's analysis of the strengths and weaknesses of the European Research System (ERS) concentrates too much on the perspective of the Commission's role and on that of governments and intergovernmental structures," commented Dr. John Marks, Chief Executive of the ESF. "The analysis presented in the Green Paper is a good start but ignores important partners and misses promising opportunities considering that more than 90 percent of public R&D funding occurs at national level. EUROHORCs and ESF, together with other organisations, should continue to take an important part in the creation of the ERA."

To promote competition and increase quality, EUROHORCs and ESF are suggesting that the EU should inject more resources into basic research through programmes such as the European Research Council (ERC), a move to reduce EU's bureaucracy, and to put pressure on its member states to remove the still abundant barriers to the mobility of researchers.

"The national players including research funders and research performers on the one hand and governments, on the other, have to implement a common strategy to increase their efforts to remove the institutional barriers such as the shortage of human and monetary resources, to adopt common peer review systems, to implement jointly funded schemes and ease the sharing of research infrastructure" commented Pär Omling, President of EUROHORCs.

Agreeing that unnecessary fragmentation should be avoided, EUROHORCs and ESF have recognised that the diversity which underlies fragmentation could also result in a positive impact when it leads to a differentiated research landscape, provided the landscape is transparent and there is good communication. The diversity could certainly encourage competition, enable cooperation and consequently raise quality (see also Marine Board Statements in response to the European Commission's Green Papers on: (i) Maritime Policy, and (ii) ERA. Position Paper 11, November 2007).

"The main aim behind such an endeavour must be to fund excellent scientific projects in a transparent and fair manner – only with this base will it be possible to establish a successful and competitive European Research Area," added Marks. "It is essential to involve all stakeholders of science and science strategy in Europe, thereby also including the private sector in its function of funding and executing research, contributing more than half to the total expenses of R&D in Europe."

ESF and EUROHORCs have raised 11 points of activities and measures:

- Develop a concerted vision for steering scientific research in Europe through coordinated foresight exercises
- Establish more bottom up researcherdriven programmes based on the EUROCORES
- Introduce a new funding mechanism for linking the Research Performing Organisations under the EU Research Framework
- Developing cooperation schemes beyond the borders of the ERA towards a global research area GLOREA
- Developing programmes for early stage researchers
- Pursuing closer collaboration on PhD training programmes

- Create more joint public-private funding partnership sources
- Developing closer interactions with the universities
- Developing the Money follows researcher and Money follows cooperation schemes
- Enable scientists in EU countries to apply to the funding agencies in any EU country
- Establish or extend medium-sized infrastructures

Potočnik, 52 countries' representatives ponder research integrity in Lisbon

EU Commissioner for Research Janez Potočnik, Angel Gurria, the Secretary-General of the Organisation for Economic Co-operation and Development (OECD), and José-Mariano Gago, the Portuguese Minister of Science, Technology and Higher Education along with more than 300 participants from 52 countries gathered in Lisbon, Portugal in September 2007 for the First World Conference on Research Integrity. This unprecedented gathering of concerned scientists, scientific managers and magazine editors from around the world was driven by the common belief that research integrity is not just an important issue for the research community as policy makers and the general public also have a great stake in it.

The issue of research integrity has dogged the science community in recent years as many high-profile misconduct cases have brought unwelcome attention and cast doubt on the credibility of the science research field. Credibility and competence are only one side of the coin. The other side has to do with the economic and financial losses due to misbehaviour.

In an effort to address the urgent need to fight fraud, forgery and plagiarism in science world-wide, the very first World Conference on Research Integrity took place in Lisbon, Portugal from 16 to 19 September 2007 to facilitate an unprecedented global effort to foster responsible research. The event was initiated and organised by the European Science Foundation (ESF) and the US Office for Research Integrity (ORI). It marks a milestone for the science community as it will link all those concerned parties in a global effort to tackle the issue head on.

EURYI 2007: 20 researchers receive Nobel Prize-sized awards in Helsinki

Twenty young researchers gathered in Helsinki on 27 September 2007 to receive awards of as much as 1.2 M€ from the fourth and final Call of the European Young Investigator Awards (EURYI) scheme.

EURYI is designed to attract outstanding young scientists from around the world to create their own research teams at European research centres and launch potential world-leading research careers. Most awards are between €1,000,000 and €1,250,000, comparable in size to the Nobel Prize.

The average age of 2007's winners is 33.1, making it the youngest group in EURYI's history. (The average age of last year's winners was 35.4.). Six of the awardees are women, making it the highest number of female winners in any year.

The list of the 2007 Awardees includes researchers who will be based in eight countries – Czech Republic, France, Germany, Netherlands, Poland, Sweden, Switzerland and Turkey. Their original ideas range from new techniques to manipulate antimatter to disease gene mapping and functional genomics in the domestic dog.

"It has been amazing to witness how the EURYI scheme has evolved and become a force to be reckoned with in recognising young researchers' works by granting them Nobel Prize-scale funding for the past four years," commented Dr. John Marks, Chief Executive of the ESF.

The EURYI awards were offered in this 4th Call by 17 research councils from 15

countries in an open competition with no 'juste retour'. Candidates are selected on the basis of their future potential and their academic and research excellence.

Competition in 2007 was as intensive as ever, with 474 applications received. The EURYI Awards scheme was developed by the European Heads of Research Councils (EUROHORCs), in collaboration with the European Science Foundation (ESF), to attract outstanding young researchers from anywhere in the world to work in Europe for the further development of European science, contributing to building up the next generation of leading European researchers.

The first Call of the scheme was launched in September 2003, and the first three Calls have resulted in 75 awards. Candidates are selected by a two-stage process, firstly at the national level by the relevant Participating Organisation and secondly at the international level by high-level scientific panels managed by the ESF. ESF's role in the coordination and selection processes of EURYI is supported by funds from the European Commission's Framework Programme 6.

The 2007 Awardees received a diploma, presented by the Nobel-laureate Dr. Tim Hunt, at a special ceremony in Helsinki, Finland.



List of Awardees

- Dr. Anastasia Ailamaki (Switzerland) -Efficient data management for scientific applications
- Dr. Jeroen J.L.M. Cornelissen (The Netherlands) - Virus Capsids as Confined Reaction Spaces
- Dr. Nynke Hester Dekker (The Netherlands) - Molecular Motors Handling DNA and RNA: Single-Molecule Experiments and Implications for Cellular Function
- Dr. Hilmi Volkan Demir (Turkey) -Novel molecular optoelectronic nanodevices hybridized on micro chips for new functionality
- Dr. Andre Fischer (Germany) -Epigenetic mechanisms in learning processes, age related cognitive decline and neurodegenerative diseases
- Dr. Karl Gademann (Switzerland) -Directing neurite outgrowth through synthetic natural products
- Dr. Sonia Garel (France) -Wiring the forebrain: roles and mechanisms of tangential cell migration in the basal ganglia
- Dr. Oscar Gelderblom (The Netherlands)
 The evolution of financial markets in Pre-Industrial Europe: A Comparative Analysis
- Dr. Masaki Hori (Germany) Precise laser and microwave spectroscopy of antimatter atoms – new techniques to manipulate antimatter

- Dr. Kerstin Lindblad-Toh (Sweden) -Disease gene mapping and functional genomics in the domestic dog
- Dr. Matthias Lutolf (Switzerland) -Bioengineering Microarrayed Stem Cell Niches
- Dr. Gregor Rainer (Switzerland) -Cholinergic Mechanisms of Learning and Cognition
- Dr. Philippe Schlenker (France) -Presupposition: A Formal Pragmatic Approach
- Dr. Kai Phillip Schmidt (Germany) Exotic phases and excitations of unconventional Mott insulators
- Dr. Martin Schnabl (Czech Republic) -Exploring String Field Theory - Can It Explain Quantum Birth of the Universe or Properties of Elementary Particles?
- Dr. Natalie Sebanz (Germany) Cognitive and Neural Mechanisms of Joint Action
- Dr. Sylvia Serfaty (France) Mathematical study of some equations related to physics, mechanics and optimal control
- Dr. Terence Strick (France) -Single-molecule studies of biological nanomachines
- Dr. Rufin Van Rullen (France) Perceptual and Attentional Dynamics: Periodic Operations of the Brain
- Dr. Maciej Wojtkowski (Poland) -Structural and functional imaging by Fourier domain Optical Coherence Tomography with Optical Frequency Comb method

ESF meeting sets cornerstone for science communication



Scientists are not generally regarded as good communicators when it comes to explaining their research to the outside world. Hence the European Science Foundation (ESF) decided to hold a communications network meeting in October 2007 in Strasbourg, France to facilitate a forum for communication practitioners from various European science organisations and academies to discuss their challenges and ideas.

"I believe this meeting has created a cornerstone for the future interaction among the communication experts from the ESF's 77 Member Organisations," said Claus Nowotny, Communications Director of the ESF. "This network could potentially improve the way how scientists express their ideas to a wider audience."

The meeting, which took place on 18-19 October 2007, was attended by the ESF's Member Organisations, representatives from 18 countries.

A study entitled 'Factors Affecting Science Communication', which is conducted by the UK's Royal Society, shows that, in the case of British universities, a 'research driven' culture, the pressure to publish research, to attract funding to their departments and build career on 'hard research' are key barriers to scientists communicating their work with the public. Some scientists even went as far as describing public engagement work, such as debates, dialogues, exhibitions and media appearances, as being bad for their careers as some reasoned that these activities are 'done by those who were not good enough' for an academic career. That it was 'light' or 'fluffy' and risked reinforcing negative stereotypes for women involved in these activities".

A range of communication tools and issues were discussed during the two-day meeting -- Neville Hobson, one of the leading European early adopters and influencers in social media communication for business, reviewed and explained how communication experts could take advantage of the current wave of Social Media tools such as blogs, virtual committees, etc. Fredrik Wackå from W PR & Information AB explained further what is required for effective Web Communications. Dr. Volker Wendt, Director, Burson-Marsteller in Brussels shared his expertise on lobbying to the policy makers. At a round table discussion session participants expressed some major challenges that befall on them while working as a bridge between the scientists and their audiences. Some of the issues that have been raised include:

- Researchers do not know how to express their ideas to politicians
- To convince scientists of the benefits of communicating what they do
- To raise national government's priorities in science

- To convince the media to write about a wider range of science topics
- To increase public interest in science and the desire in the young generation to study science

All participants have echoed an underlying challenge – which is to convince scientists to effectively communicate their work to the public.



IPCC's Nobel Peace Prize win underlines International Collaboration spirit, ESF involvement

The awarding of the 2007 Nobel Peace Prize to the Intergovernmental Panel on Climate Change (IPCC) has not only demonstrated a remarkable commitment to the dedication of the worldwide experts' effort into climate change research, it has also highlighted the spirit of collaboration that has been avidly embraced by the ESF since 1974.

"This Prize confers honours to the whole climate change community and recognizes the importance of disseminating our scientific knowledge. It values scientific research and its role in our society," said Dr. Didier Hauglustaine, Science Officer in the ESF's Life, Earth and Environmental Sciences (LESC) Unit and one of the lead authors of the last two IPCC assessment reports.

Through its various programmes and activities, the ESF has contributed to the effort of better understanding of the climate system, its past and future evolutions, and its link with humankind. Among several others, programmes such as EuroCLIMATE, BOREAS, EPICA, EuroDIVERSITY have directly contributed to the research and education on global climate change. Several researchers, who are actively involved in LESC, are lead authors in the last IPCC's Working Group I assessment report.

Hauglustaine is the scientific coordinator at ESF for the EUROCORES programmes EuroMARC (Challenges of Marine Coring Research), TOPO-EUROPE (4-D Topography Evolution in Europe: Uplift, Subsidence and Sea level Change) and EUROMARGINS (Processes at the Passive Continental Margins). Jean Jouzel from the Laboratoire des Sciences du Climat et de l'Environnement (LSCE), Dominique Raynaud from the Laboratoire de Glaciologie et Géophysique de l'Environnement (LGGE), and Thomas Stocker from the University of Bern were part of the EPICA (European Programme for Ice Coring in Antarctica) research network. Jouzel was also a Core Group member of the ESF Standing Committee for Life, Earth and Environmental Sciences from 1995 to 2000. Eystein Jansen from the University of Bergen is the project leader within EuroMARC. Filippo Giorgi from the Abdus Salam International Centre for Theoretical Physics in Trieste is involved in the MedCLIVAR project and Martin Heimann from the Max-Planck Institut für Biochemie was involved in SIBAE (Stable Isotopes in Biospheric-Atmospheric Exchange). Jouzel and Giorgi are the Vicechair of IPCC Working Group I.

The IPCC was created almost 20 years ago to respond to growing concern about the risk of anthropogenic climate change. The IPCC assessment reports are written by teams of recognised experts in their field from around the world. They represent relevant disciplines as well as differing scientific perspectives. The First Assessment Report of 1990 was submitted to the UN General Assembly, which responded by formally recognizing that climate change required global action and launched the negotiations that led to the adoption of the 1992 UN Framework Convention on Climate Change.

The IPCC Plenary will meet in Valencia, Spain, to adopt and approve the fourth volume of its "Climate Change" assessment report. This meeting represents the final step in integrating and presenting the enormous amounts of scientific information contained in this report and in the summary for policy makers explicitly targeted to policymakers. The Synthesis Report will be launched on 17 November 2007.

"ESF wishes to contribute with a strong portfolio of activities to a better understanding of global change and its impact, and these activities were fortunate to have leading European researchers involved," commented ESF Chief Executive Dr. John Marks, who was also the chair of the first ESF Forward Look "Earth System Science: Global Problems, Global Science - Europe's future role in global change research" which was published in 2003.

Other Nobel Prizes

ESF's association with this year's Nobel Prize doesn't just end there. Two other prominent winners for the prestigious award also have a long history with the organisation. Gerhardt Ertl, professor emeritus at the Fritz-Haber Institute in Berlin, was awarded the honour in science for his studies on the reactions between chemicals and solid surfaces. Ertl was on the ESF's Standing Committee for Physical and Engineering Sciences (PESC) from 1995 to 1998. He was one of two German members to serve on PESC when it was established in 1995. His work laid the foundations for an entire field of modern research known as surface chemistry, which describes how individual atoms and molecules behave when they come into contact with pure surfaces.

Meanwhile Albert Fert, a French physicist and one of the discoverers of giant magnetoresistance which brought about a breakthrough in gigabyte hard disks, was awarded the Nobel prize (along with Peter Gruenberg) for physics participated in the NSIT (NanoSciences and the long term evolution of Information Technology) Forward Look in April 2005. Fert is currently professor at Université Paris-Sud in Orsay and scientific director of a joint laboratory ('Unité mixte de recherche') between the Centre national de la recherche scientifique (National Scientific Research Centre) and the Thales Group.

UK House of Commons report lauds Marine Board's works

The European Science Foundation (ESF) Marine Board's effort in promoting marine science has been commended and recognised by the UK House of Commons in a published report on marine research in Britain.

According to the report of the House of Commons Select Committee for Science and Technology Investigating the Oceans published on 18 October 2007, the Marine Board plays "an important role in bringing together the marine community... highlighting the contribution that marine science can make to the policy agenda". The Committee has also acknowledged the Marine Board's Position Paper 8 Navigating the Future III (November 2006) as "an excellent synthesis of the perspectives on marine science and technology in Europe".

"These remarks in the House of Commons report emphasise the role of the Marine Board-ESF in promoting collaboration amongst the marine research stakeholder community throughout Europe. Recognition of the role of the Marine Board as a pan-European advisory body, supporting the development of informed policy by decision makers, is a welcome confirmation at the highest political level of the continued work and commitment of the Board and its Member Organisations," commented Dr. Niamh Connolly, the Executive Scientific Secretary of the Marine Board. The Marine Board has also been highlighted as the main networking forum in Europe for marine research policy while the role of MarinERA (the ERA-NET which the Marine Board jointly coordinates with Ifremer -France) is being recognised as "significant." In addition to the policy work of the Marine Board, the Committee has also lauded the Board's effort on the EurOCEAN 2007 Conference and the resultant Aberdeen Declaration (June 2007). The Marine Board was instrumental in organising the conference and in drafting the associated Declaration, which serves as a collective position statement on the role of marine science and technology in Europe.
ESF awards European Latsis Prize to Professor Willi Kalender on Medical Imaging achievement

The European Science Foundation (ESF) awarded the 2007 European Latsis Prize to Professor Willi Kalender from the Institute of Medical Physics at the Friedrich-Alexander-University Erlangen-Nürnberg in Germany for his contribution and in-depth research on the medical imaging field.

The European Latsis Prize, valued at 100,000 Swiss francs (€65,000) is financed by the Geneva-based Latsis Foundation and awarded by the ESF to an individual or group who, in the opinion of their peers, has made the greatest contribution to a particular field of European research.

His main research interest is in the area of diagnostic imaging with a focus on the development and introduction of volumetric spiral computer tomography (CT). His other fields of research are radiation protection and the development of quantitative diagnostic procedures, e.g. for assessment of osteoporosis, lung and cardiac diseases. His work is widely documented in more than 700 scientific papers and 175 plus original publications.

The award of the European Latsis Prize to Kalender is to recognise his achievements in developing, testing and establishing spiral CT. Spiral CT enabled the transition from sequential two-dimensional (2D) CT imaging to fast volumetric threedimensional (3D) imaging, which led to a complete change of paradigm in imaging. Spiral CT also allows diagnostic imaging of a level and in areas that were not possible with conventional 2D CT imaging.



Kalender received his Master's Degree and PhD in Medical Physics from the University of Wisconsin, US in 1979. In 1988 he completed all postdoctoral lecturing qualifications (Habilitation) for Medical Physics at the University of Tübingen. From 1979 to 1995 he worked in the research laboratories of Siemens Medical Systems in Erlangen, Germany, from 1988 to 1995 as head of the department of Medical Physics. Since 1991 he has been Adjunct Associate Professor of Medical Physics at the University of Wisconsin, from 1993 to 1995 he lectured at the Technical University of Munich. In 1995 he was appointed full professor and director of the newly established Institute of Medical Physics Friedrich-Alexander-University the at Erlangen-Nürnberg, Germany.

He also holds appointments as Distinguished Visiting Professor at Stanford University, Department of Radiology, and as Visiting Professor to the University of Wisconsin, Madison, Department of Medical Physics. He is a member of the International Commission on Radiation Units and Measurement (ICRU).



ESF's 1st Science Policy Conference ponders questions on ERA, Global Research Area

Never mind the politics of a superstate, just consider the scientific challenge that faces Europe. Should researchers cooperate or compete? Should there be a master plan, prepared by the ministers, funding agencies and chiefs of European science, or should Europe's commissioners encourage imagination and invention at the laboratory bench?

Or, to put it another way, is the European Research Area just a first step towards a global research area: in acronym terms a move from ERA to GLOREA?

The European Science Foundation (ESF) opened its first ever science policy conference in Strasbourg on 28 November, 2007 and wrestled with questions that, for the moment, could only be answered with other questions. Should researchers be directed to tackle the obvious problems that face society – the menace of climate change, for instance, or the problem of maintaining health in an increasingly elderly populace? Or should researchers be encouraged to explore possibilities that no one had ever imagined? "More importantly, more difficult, how do you apply science to the possibilities that might be there but you don't really know about," said Ian Halliday, president of the ESF, and a theoretical particle physicist. "My favourite example is the Americans, taking to, and grabbing, everybody's technology to make the Internet work. Think of the impact on society. That wasn't a solution to societal need. That was: there's something interesting over here that's more than just mature science. How do we make it work, how do we turn it into something."

Take the problem of what used to be considered healthy competition, but in a close-knit Europe looks increasingly like duplication of effort, or fragmentation of research funds. "What do I mean by duplication? I mean the worry in the UK or Sweden or wherever that you are funding something that is really identical to something funded in Italy or whatever. Again let me use my background. The UK had the best dark matter experiment in Europe. So did France and so did Italy. Those cannot all be true. There is real suspicion that



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the money could have been spent better. And that is repeated many times across Europe. So how do we get that kind of visibility and transparency?"

Dark matter makes up more than 20 per cent of the universe. All the stars and all the galaxies account for only about 4 per cent of creation. More than 70 per cent of the mass of the universe is concealed in a phenomenon sometimes called dark energy, or quintessence, or antigravity: a force so mysterious that no physicist has any confidence that it will ever be understood. Most of the galaxies, however, are embedded in an invisible but massive substance known as dark matter, and most researchers believe that, sooner or later, they will begin to identify it. Professor Halliday's point is not that any one experiment is more likely to succeed; it is that to make the best of its intellectual effort, a European research council should have been able to consider all three projects, and endorse one of them. The challenge was to get the most money to the best scientists to produce the fastest and most effective research. "I suspect much talent in Europe does not have that kind of funding," he said.

Colin Blakemore, an Oxford neuroscientist and until October head of the UK's Medical Research Council, had a different set of questions about the new shape of scientific research in Europe. "One shouldn't lose sight of the broader goal: that integration and co-operation are not ends in themselves. They are means to the greater benefit of science. Or are they always? Is it absolutely essential that to be successful in science Europe must have enforced trans-national co-operation? It is worth reflecting on that," he said.

Sometimes, that question was simply answered. Some scientific ventures – the huge atom-smashing collider at CERN in Geneva, for example, the human genome project and the European bioinformatics institute – were simply too big and too costly for any single university or country to attempt. There were clinical trials that worked best as transnational co-operations, and vaccine partnerships that demanded international effort. Space programmes and fusion research were also obvious examples of successful and necessary co-operations.

"The examples are there but notice that in each case one can trace the need for co-operation to a scientific objective and goal rather than enforced co-operation for its own sake," Professor Blakemore said. "We have to be very cautious, in recognising that the driver for co-operation is not co-operation itself, but it is the goal of supporting science better where co-operation is essential."

Korea Research Foundation eyes entry into EUROCORES, Research Networking Programmes

In another sign of how European Science Foundation (ESF)'s activities are breaking geographic barriers and exerting global influences, the Korea Research Foundation (KRF) has expressed desire to participate in ESF's programmes such as the European Collaborative Research (EUROCORES) Scheme and the Research Networking Programmes (RNP).

At a meeting in Seoul, Dr. Sang-Man Huh, the President of the KRF met with the Chief Executive of the ESF Dr. John Marks to discuss the possibility for his organisation to be involved in ESF's programmes. The workshop meeting "2007 KRF Capacity Building Workshop for Research Management", which was organised by KRF, was held from 12-17 November. Dr. Marks was a featured participant and keynote speaker at the event. It was attended by representatives from 23 research organisations and institutes from 15 countries in the Asian region. "In the fields of science and engineering, research collaboration between Korea and Europe has started to increase. But in terms of humanities and social sciences, the basis for cooperation is still weak," commented Dr. Huh. "I believe that it is necessary to lay the foundation for more active exchanges and collaboration between Korean and European researchers by means of academic agreements or through other measures between KRF and ESF. I would also like to encourage Korean researchers to participate in some of the ESF programmes such as the EUROCORES Programmes and the RNPs."

The two heads of organisations also touched on the issue of the European Commission's plan to create a single European market for scientists, namely the European Research Area (ERA). The KRF is looking into the possibility to initiate a similar effort in Asia. During their meeting, the KRF President was enquiring about the possible role that the ESF will play in the creation of the ERA.

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EuroBioForum sows the seeds for future Life Sciences initiatives in Europe

A meeting of researchers, administrators and funding agencies has laid the foundations for a key part of Europe's future research strategy in the life sciences.

The EuroBioForum conference in Lisbon, Portugal on 6 and 7 December 2007, organised by the European Science Foundation (ESF) and the European Commission (EC), with support from the Portuguese Foundation for Science and Technology (FCT), aimed to bring together researchers and funders to begin the process of establishing ways to create and finance cross-border partnerships in six areas of the life sciences considered to be future research priorities.

During the conference, the six research consortia presented their pioneering research programmes on topics ranging from using systems biology to combat metabolic syndrome, to developing new methods to study brain disorders including addiction, depression and schizophrenia.

One consortium led by Dr. Alain Tedgui of INSERM is proposing to establish a European Vascular Biology Institute (EVBI) - a 'virtual' organisation harnessing expertise across Europe in all aspects of vascular biology in an effort to come up with innovative ways to tackle vascular disease.

Another consortium is led by Dr. Bart Sangster, a retired public health expert and former Senior Vice-President of Safety and Environmental Assurance at Unilever, and Professor Jos Kleinjans of Maastricht University in The Netherlands. They have proposed a programme called ASAT – Assuring Safety without Animal Testing. The aim is to take a radical approach towards assessing the risk to human health of chemicals using new advances in science and technology. In this way it might be possible to drastically reduce the numbers of animals used in toxicology tests – around 1 million each year in the EU. Dr. Sangster remarked that "We think that in the future with huge effort and concerted action we can reduce that number considerably".

Professor José Mariano Gago, the Portugese Minister for Science, Technology and Higher Education was a keynote speaker at the meeting. He told participants at the conference that it is crucial that any new initiative for collaborative ventures will not replicate existing alliances.

Dr. Patrik Kolar, head of the Genomics and Systems Biology unit of the European Commission's Research Directorate, told the meeting that EuroBioForum was an important way to choose the strategic direction of research in Europe to ensure minimal duplication of effort and reduced fragmentation of research. The EU's Framework research programme encouraged co-operation, Dr. Kolar said, "and EuroBioForum is an important part of this."



Highlights from 2007

European Launch of International Polar Year

The European launch of International Polar Year (IPY) 2007-2008 in February 2007 marks the commencement of the largest and most ambitious globally-coordinated scientific effort for half a century. Policy makers and leading scientists from various fields gathered at the European Parliament in Strasbourg to discuss how the international scientific community could work together during IPY, to address the serious global threat of climate change, and explain why polar science is crucial to understanding how our world works.

"The polar regions are vital arenas for science, foreign policy, trade, energy and security," said Professor Carlo-Alberto Ricci, Chairman of the European Polar Board, at the launch event, which is funded by the European Science Foundation (ESF). "International Polar Year is a once-in-alifetime opportunity for Europe to deepen and broaden international partnerships and create trust and mutual understanding through political and scientific dialogue."

Europe is playing a leading role in IPY, which involves around 50,000 people from more than 60 nations. The continent has invested more than 200 M€ in most of IPY's 228 projects, and is contributing in research fields ranging from marine, space, and environmental sciences to medicine, humanities and social sciences. During IPY, European researchers will seek answers to some of the most important scientific questions facing our planet and set the agenda for future polar science.

At a time when climate change is being debated at the highest political levels, and its social and economic effects are being felt in many European countries, polar research has never been more important – or more relevant – to Europe and its citizens.

As well as heralding a new era of polar research, IPY will – through dozens of education and outreach projects – inspire a new generation of young scientists and engage the public in genuine dialogue about polar science, climate change and the future of the planet.

Other speakers at the European launch event included: Dr. David Carlson, Director of the IPY International Programme Office: Dr. Artur Chilingarov, Deputy Chairman, State Duma of the Russian Federation; Dr. Einar-Arne Herland, Head of Science Strategy, Coordination and Planning Office, European Space Agency and a representative of the Climate Unit of the European Commission.

IPY is a programme of the World Meteorological Organization (WMO) and the International Council for Science (ICSU) and is sponsored by several international organisations, including the European Polar Board.

Systems Biology to boost the understanding of cell function and disease

Systems Biology is transforming the way scientists think about biology and disease. This novel approach to research could prompt a shake up in medical science and it might ultimately allow clinicians to predict and treat complex diseases such as diabetes, heart failure, cancer, and metabolic syndrome for which better therapies are still needed.

In 2007 the European Science Foundation (ESF) published a Forward Look (FL) report System Biology: a grand challenge for Europe; an attempt to identify how research in Systems Biology could

be accelerated and developed further in Europe. The report concludes with a set of specific recommendations that aims at consolidating Systems Biology efforts in Europe. The idea of this ESF initiated Foreward Look first came to light with a proposal by the Netherlands Organization for Health Research and

Development (ZonMw) and the NWO Council for Earth and Life Sciences in the Netherlands. The proposal was later materialised into concrete effort based on extensive discussions during a number of focused workshops and meetings between scientists and policy makers from academia and industry.

The report, which includes 12 essays from the scientific experts in academia and industry, illustrates "Europe's potential to be at the forefront of pinpointing the system causes of diseases, aiming at the rational design of targeted therapies and drugs" according to Dr. John Marks, the Chief Executive of the ESF.

The report tells us "it is necessary to develop a well coordinated effort, bringing together the many different research activities in Europe, and complement this with joint development of basic technologies, reference laboratories and training a new generation of researchers," adds Marks.

> The report was the outcome of the ESF Forward Look on Systems Biology that has been conducted in 2004 and 2005. The recommendations were first published in the ESF Science Policy No. 25 in October 2005.

To further value the importance and potential of Systems Biology, ESF has invited renowned scien-

tific leaders to share their expertise on how to best implement the Forward Look report's recommendations. The Corresponding task force, comprising of nine experts in the field, published a series of precise recommendations on necessary steps to accelerate research on System Biology in Europe based on the Forward Look report.

More information: www.esf.org/publications.html



Highlights from 2007

Watching what we eat: ESF - COST conference on Food Systems

Food has never been more of a global commodity than it is today. But there is an urgent need to understand the problems that face future European food supplies within this global market. And so scientists and policy makers gathered in Budapest in November 2007 to push for a more holistic approach to the study of what Europeans eat.

The conference, supported by the European Science Foundation (ESF) and the European Cooperation in Science and Technology (COST), looked at where food comes from, the ways in which it is processed, packaged and distributed, and how it is sold and eventually eaten.

Scientists at the conference showed that Europeans sitting down at their dinner tables are eating a broader range of meats and vegetables than ten years ago. Europeans demand that their food tastes better, makes them healthier and can be prepared in less time, and yet they want this food available year round at a low price. To meet these needs, food travels many more miles; along much more complicated distribution routes than ever before on its journey from the farm to our forks.

One reason to better understand the European food system is the growth in global markets—the Chinese are eating more meat, and a large market for dairy

products is opening up on the Indian subcontinent. And with Europe's share of global exports predicted to drop from 24 percent to 20 percent over the next 10 years, Europe needs to become more efficient to compete in a global market. Scientists hope that by encouraging different industries within the food chain to think about the food system as a whole, they can increase overall efficiency.

Changes to Europe's own food market is another reason to better understand the European food system. An aging European population brings different health demands that could be met-in part-by altering the food they eat. Migration of people into the EU has changed European food tastes, customs and traditions, and increased wealth gives Europeans the means to buy more meat. Furthermore, longer workdays and the entry of women into the workplace has left many Europeans with little time to prepare food, resulting in a reliance on 'ready-meals'. One consequence of this is an average meal contains more ingredients that have travelled further and require more packaging.

Finally, changing energy consumption and the threat of climate change will force Europeans to think about how efficiently they produce and consume food. By studying food systems, scientists hope to understand the socioeconomic, political, and cultural influences on what Europeans eat. And policy makers can use this knowledge to steer how Europe manages the food chain—starting in the field and ending in the stomach—to ensure that all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs.

The conference, on November 5-6, was attended by 75 scientists and policy makers from 22 countries and was one of the series of research conferences organised by the ESF-COST Forward Look initiative.

This Forward Look is a multidisciplinary joint ESF-COST initiative, which involves the ESF Standing Committee for Life, Earth and Environmental Sciences (LESC), the ESF European Medical Research Councils (EMRC), the ESF Standing Committee for the Humanities (SCH), the ESF Standing Committee for the Social Sciences (SCSS) and the COST Domain Committee for Food and Agriculture (FA).



Highlights from 2007

Space scientists, humanities scholars explore outer space from new perspective

Space agencies and scientists are tirelessly working to make manned missions back to the Moon and then onwards to Mars a reality. The technologies involved are awe-inspiring, but what challenges do historians, philosophers or sociologists expect us to face in an era of interplanetary exploration and, perhaps, colonisation?

To find out, the European Science Foundation (ESF), European Space Agency (ESA) and the European Space Policy Institute (ESPI) co-hosted a conference in Vienna, on 11-12 October 2007, at which humanities scholars and space scientists came together, for the first time in Europe, to discuss humankind's presence in space from non-traditional perspectives. The conference Humans in Outer Space – Interdisciplinary Odysseys gave guiding insight into how once we find a way to survive in outer space we will also face issues that can be best addressed in the light of modern understanding of historical events.



Issues that conference delegates explored include the philosophical and theological consequences of contacting alien intelligences, the marketing of space exploration, and the legal frameworks that will be needed if space-faring nations are to co-operate peacefully.

The event was being organised in part by an ESF Steering Committee chaired by Professor Luca Codignola, a historian at the University of Genoa, told the conference: "We have two different visions of the same story - the more hard vision of the scientist and the more soft vision of the humanist - but we are dealing with the same idea, with human thought and with human beings either here on Earth or wherever we're going to be."

The conclusions from these sessions have been documented in a position paper entitled Vienna Vision on Humans in Outer Space.

Astronomers get their hands dirty as they lift the veil on galactic dust

There is more to a grain of dust than meets the eye, at least for astronomers as they attempt to probe deeper into distant galaxies. Until now dust has been a nuisance because it has obscured galaxies, and the stars within them, by absorbing the radiation they emit. But more recently dust has started to present opportunities because it emits radiation itself as a consequence of being heated up by nearby stars. Aided by new observing instruments and sophisticated computer software, this radiation enables astronomers to reconstruct what lies behind the dust. Furthermore the dust itself plays a vital role in star formation within galaxies.

The stage was set for dramatic advances in the study of galactic dust in a recent workshop funded by the European Science Foundation (ESF)'s Exploratory Workshop. The big breakthrough is the ability to detect the dust at much higher resolution from its infrared radiation, according to Simone Bianchi from the INAF-IRA in Italy and a co-convenor of the ESF workshop. "It has been possible to do this since the eighties, but the new instruments have a higher sensitivity," said Bianchi.

At the same time new computer models are making it possible to work out the structure of the galaxy lying behind the dust, even though it cannot be observed directly at any wavelength. The key here is that the dust is acting as a relay for radiation emitted by the stars behind it. The dust absorbs high energy radiation from the stars and then heats up as a result. It then re-emits in the infra red waveband, which can now be detected with sensitive new instruments.

Plans were made at the workshop to use the European Space Agency's new infrared space telescope called Herschel, which will be launched in 2008 and be capable of detecting infrared radiation emitted by distant galactic dust. "The new instruments will allow us to detect dust associated with less dense regions of the interstellar medium," said Bianchi.

Astronomers also hope to learn more about the role played by dust in star formation. As Bianchi pointed out, there is a well established connection between the dust and the gas from which stars are formed. But the detailed relationship is unknown, and will require knowledge about the dust itself, in particular its molecular structure and lifecycle.

The ESF workshop focused mainly on spiral galaxies, because these are heavily obscured by dust. Galaxies are split into three categories by their structure, spiral, elliptical, and irregular. There is less dust in elliptical galaxies, while irregular galaxies

Highlights from 2007

are more difficult to model because they lack any orderly structure. "Spiral galaxies can be modelled in a more direct way because of their relatively simple geometry," said Bianchi. "However, recent comparison with observations of dust emission has shown that models may need a higher degree of complexity. This can be achieved now with the advances in computational facilities." Europe exploit the full potential of the data that will be obtained from the new instruments. It has already brought together the relevant European groups specialising in spiral galaxies and modelling dust, providing the platform for major advances in the field. The workshop, held in Ghent, Belgium in May 2007, brought together 29 researchers from 10 different countries.

Further information about the workshop please go to www.arcetri.astro.it/radtran



Investigating Life in Extreme Environments report gives hints on life

From the deepest seafloor to the highest mountain, from the hottest region to the cold Antarctic plateau, environments labelled as extreme are numerous on Earth and they present a wide variety of features and characteristics.

Investigating life processes in extreme environments not only can provide hints on how life first appeared and survived on Earth (as early earth was an extreme environment) but it can also give indication for the search for life on other planets.

To examine these issues and other matters the European Science Foundation (ESF) has published a 58-page report Investigating Life in Extreme Environments – A European Perspective. Among other issues, the report has stated how global changes in the recent decades have turned some environments setting into becoming "extreme" conditions for the normal ecosystems (e.g. acidification of the oceans). Therefore the understanding of tolerance/ adaptation/non-adaptation to extreme conditions and ecosystem functioning are able to help predicting the impact of global change on biodiversity.

This report is resulted from an ESF inter-committee initiative involving the Marine Board (MB-ESF), the European Polar Board (EPB), the European Space Sciences Committee (ESSC), the Life Earth and Environmental Sciences Standing Committee (LESC), the Standing Committee for Humanities (SCH) and the European Medical Research Councils (EMRC). This interdisciplinary initiative considered all types of life forms (from microbes to humans) evolving in a wide range of extreme environments (from deep sea to acidic rivers, polar regions or planetary bodies).

A series of recommendations were made from a large-scale interdisciplinary workshop (128 participants) organised in November 2005 with an additional workshop organised in March 2006. They have identified interdisciplinary (listed below) and disciplinary research priorities.

Recommendations:

Cross-cutting Scientific Recommendations

- Identify and agree on i) model organisms in different phyla (a group that has genetic relationship) and for different extreme environments; and ii) model extreme environments
- Favour an ecosystem-based multidisciplinary approach when considering scientific activities in extreme environments.
- Foster the use of Molecular Structural Biology and Genomics when considering life processes in extreme environments

Highlights from 2007

Cross-cutting Technology Recommendations

- Laboratory simulation techniques and facilities (e.g. microcosms) should be wider developed and made available to the scientific community.
- Develop of in-situ sampling, measurement and monitoring technologies. The assessment and use of existing techniques is also recommended.
- Adopt a common approach (specific to research activities in extreme environments) on technology requirements, availability and development.

Structuring and Networking the Science community

- Favour interdisciplinary and multidisciplinary approaches between scientific domains and between the technological and scientific spheres.
- Create as soon as possible an overarching interdisciplinary group of experts to define the necessary actions to build a critical European mass in the field of "Investigating Life in Extreme Environments"
- Improve the information exchange, coordination and networking of the European community involved in scientific activities in extreme environments (see also CAREX FP7 project page 116).





Forward Looks

ESF Forward Looks are a foresight instruments enabling policy makers from ESF Member Organisations, in interaction with Europe's scientific community and other organisations, to develop medium to longterm views and analyses of future research developments in Europe in a global context. The purpose of a Forward Look is to assist organisations with developing common science agendas and priority setting for research and research infrastructure funding at the national and the European levels.

The new process of selecting Forward Look topics introduced in 2007 offers the leading role to ESF Member Organisations and at the same time allows Standing Committees, and via them the European scientific community, to play an active role in their initiation.

This new concept for the Forward Look instrument was discussed in a report by Barend van der Meulen "Looking Beyond Endless Frontier. ESF Forward Looks Scheme: Analysis and Recommendations" which positions the ESF Forward. Look instrument in the wider foresight landscape and sets up a framework for its future development. The following pages highlight new Forward Looks which got under way in 2007. For detailed information please visit the relevant noted location on the ESF Website.

More information: www.esf.org/flooks

Standing Committee for the European Medical Research Councils (EMRC)

Investigator-Driven Clinical Trials • (2007-2008)

The need for coordination of clinical research in Europe is a mandatory step to speed up the movement of scientific discoveries from bench to bedside and expand outreach efforts to minority and medically underserved communities.

An integrated, EU-wide patient oriented research approach is necessary to reduce fragmentation and allow high-quality, multinational clinical studies. In order to recommend adequate far-reaching initiatives, a state of the art analysis was undertaken under the format of the Forward Look "Investigator-Driven Clinical Trials" and will develop in 2008.

Towards this goal, five strategic workshops are being organized in 2008 to address the following issues:

- 1. Categories and Design of Clinical Trials
- 2. Regulatory and Legal Issues, IPR and Data Sharing

- 3. Management of Investigator-Driven Clinical Trials
- 4. Education, Training, Career and Authorship
- 5. Funding and Models of Partnerships

This Forward Look will lead to a consensus conference which will be held on 29-30 September 2008 followed by the publishing of a report highlighting the key recommendations on how to better coordinate the various national and European initiatives in this domain and overall strengthen investigator-driven clinical trials in Europe in an international perspective.

More information: www.esf.org/idct

RNA World: a new frontier in biomedical research • (2007-2009)

Joint Activity with LESC

The main objective of this study is to explore the full potential of RNA-technology for medical application by foreseeing developments that are likely to take place during the next decade, by stimulating cooperation between the medical community and molecular biologists. Research on RNA molecules has produced amazing results in recent years. Much progress has been made in basic science and its translation into clinical application. Not without reason was RNA voted "Molecule of the Year" or runner-up several times by Science magazine over the past few years. The 2006 Nobel Prize in Medicine was awarded for the discovery of RNA interference - gene silencing by double-stranded RNA.



Gene silencing by RNA interference represents just one area of potential for RNA in medicine. Even though technical problems have to be overcome the first clinical applications are being developed. The Forward Look RNA World which was launched on 25 May 2007 uniquely integrates projects and networks of ongoing EC and ESF projects with the aim of taking a comprehensive look at the future of this fascinating research area.

The first workshop entitled "Methodologies for RNA discovery" addresses questions as to how to identify new RNAs and how to localize RNAs and their expression and what the primary sequence of a RNA would tell us. Another workshop addressing the issue of molecular interactions of RNAs with their partners is planned for April 2008 while RNA therapeutics will be discussed in a workshop scheduled for November 2008. The final Consensus Conference is planned to take place in Granada, Spain in February 2009.

More information: www.esf.org/rnaworld

Standing Committee for the Humanities (SCH)

Security – Advancing a Framework for Inquiry (SAFE) • (2007-2008)

Joint Activity with SCSS

Security research has proceeded far too long without adequate input from human and social sciences, focusing on crisis management and threat countering. This Forward Look will develop new perspectives for integrated research, to inform long-term understandings of models of security, of contingent cognitive, cultural, ideological and legal frameworks, and of relevant management issues.

The objective is to address scientifically complex issues such as critical thresholds and systemic scientifically imbalances.

Through comparative studies, the Forward Look will reflect the different approaches to the topic in the ESF constituencies.

A global science advisory board and partnerships in Europe and beyond will ensure a high level of knowledge transfer and a sustained science-and-policy dialogue (e.g. through EU, UN, NATO, CIS, etc.).

More information: www.esf.org/safe

Religion and Belief Systems • (2007-2009)

Joint Activity with SCSS

Against the background of existing national and international research programmes on religion – borne mainly out of societal requests to tackle the rise of religion as a social force in contemporary Europe – this Forward Look aims at exploring the specificities of religions as opposed to other belief systems.

Very basic questions such as what people believe in and how beliefs are structured. be they religious (e.g., God's will, sin, redemption) or secular (e.g., democracy, equality, racial superiority) are still far from being answered. Given the strong motivational forces that religions can liberate, policy makers and academics are still illequipped to understand religion as subject and object of social and cultural change. Little is known about how beliefs change and how religions are instilled, chosen, abandoned and transformed. This Forward Look will look not only at contemporary Europe (which would preclude the possibility to examine Europe's specificity), it will also make efforts at seeking comparative dimensions and historical depth.

Appropriate research strategies for the inclusion of important areas of intersections of religions and other sectors of society – law, education – will be explored.

More information: www.esf.org/belief

Science Policy Briefings

ESF Science Policy Briefings (SPB) originated as a means for the ESF to issue position statements on various science policy issues, such as the ethical use of animals in research or the issue of human stem cells. Since its launch in 1997 more than two dozen policy briefings have been published which deal with various issues within the European Research Area. ESF Science Policy Briefings emerge generally from initiatives of one or more ESF Standing Committees and/or Expert Committees or from Forward Looks exercises.

SPB28: Medical Imaging for Improved Patient Care

Medical imaging plays a role of ever increasing importance at all levels of the healthcare system. This is why EMRC engaged in a Science Policy Briefing to strengthen Europe's position in this truly interdisciplinary scientific field. The recommendations emphasize the need for increased collaboration between different universities, between imaging specialists and clinicians, between academia and industry and between different imaging modalities. The establishment of interdisciplinary research groups of sufficient size provided with access to long-term funding is a pre-requisite to fostering further development of this research area in Europe.



The Science Policy Briefing edited by the EMRC Core Group member, Professor Arturo Brunetti from Naples (Italy) together with Professor Olaf Haraldseth from Trondheim (Norway) was published and publicised in October 2007 and was presented among others during the annual congress of the European Association of Nuclear Medicine that took place on 13-17 October 2007 in Copenhagen.

More details: www.esf.org/spb28

SPB29: EUROHORCs and ESF's comments on the EC's Green Paper: "The European Research Area: New Perspectives"

EUROHORCs-ESF Science Policy Briefing

The ESF worked with the EUROHORCs in preparing a joint response, which was submitted in September 2007, to the European Commission's "Green Paper" on the future of the European Research Area. The ESF and the EUROHORCs highlighted the crucial role that national level non-governmental stakeholders, such as research funders, research performers and academies, can play in structuring and advancing the ERA. The ESF and the EUROHORCs identified 11 points for actions and measures which they could take forward as their contribution to the ERA. A joint ESF-EUROHORCs Task Force will work in 2008 to prioritise and develop these points.

More information: www.esf.org/spb29

SPB30: Research Integrity: global responsibility to foster common standards

ORI-ESF Science Policy Briefing

Research Integrity is the cornerstone of all good research. The issues with research misconduct such as fabrication, falsification, and plagiarism have been with us for centuries but with greater public investment in research, these attract far more attention than hitherto. ESF has taken the lead in developing guidance on good research practice for some years and published an impactful Science Policy Briefing in 2000. ESF initiated and organised, with the US Office of Research Integrity, the First World Conference on Research Integrity in Lisbon in September 2007 under the Portuguese EU Presidency and with the substantial support of the European Commission. This SPB No 30 briefing has stated the conclusion of this conference. It also details the need for future action plans including the organisation of an ESF MO Forum and the creation of a global clearing house for research integrity policy and procedures. It also explains the need to hold a second World Conference which will probably be in Asia towards the end of 2009. In addition, the briefing identified the need to promote what is termed the responsible conduct of research.

More details: www.esf.org/spb30

Member Organisation Fora



Member Organisation Fora is an ESF activity that has been developed in response to a clear demand from the Member Organisations expressed during the Strategic Plan consultations. MO Fora are output-oriented, issue-related venues for the Member Organisations, involving others as appropriate, to develop joint actions. Such actions should benefit membership organisations' strategy development and/ or lead to the development of best practices, common procedures or cooperative activities. The Fora will be timelimited activities and will generally encompass one or more meetings of representatives of the Member Organisations as well as others.

The ESF encourages the development of Member Organisation Fora by inviting Member Organisations to propose promising topics.

Selected topics "Research Careers" and "Evaluation of Funding Schemes and Research Programmes" held their launch meetings in late 2007. Further proposals from Member Organisations were discussed by the Governing Council in April 2008. Issues being monitored by ESF for potential development include medium-sized research infrastructures; Open Access; Long-term Preservation of Research Data; Research Integrity.

As a follow up to the 1st World Conference on Research Integrity, held in Lisbon in September 2007, ESF, together with other international and national organisations, is currently planning the launching of a Forum to develop joint activities to promote Good Scientific Practice.

More information: www.esf.org/activities/mo-fora.html

Current MO Fora topics

Peer Review

10 Organisations

For ESF Member Organisations peer review and grant awarding procedures are key to the quality of their performance and to their reputation in the scientific community. However, with changes to the ways research is organised and funded, new challenges and requirements for peer review arise. The objectives of this MO Forum are to exchange experiences and to develop best practices across Europe. The ESF Member Organisation Forum on Peer Review started with the international conference "Peer review – its present and future state" in October 2006.

In March 2008 the Forum held a workshop open to all ESF Member Organisations with an aim to share innovative ideas and to agree on common actions. The Action Plan will be announced in summer 2008.

Evaluation of Funding Schemes and Research Programmes

41 Organisations

The focus of this Forum lies on the "postgrant" evaluation process, i.e. whether the funding schemes or the research programmes achieve their stated aims. The Forum provides a platform in which experiences with current practices in the different national organisations are exchanged and documented. The Forum aims to facilitate the networking of science officers engaged in evaluation in research funding agencies, research performing organisations and learned societies and will help them to share practical information in an informal way. Another objective of the Forum is to explore the needs and possibilities for collaboration in future evaluation exercises.

Research Careers

38 Organisations

This Forum aims to become an interface for the Member Organisations and supranational organisations including the European Research Council, the European Commission and the European University Association. It analyses existing studies, documents, strategies and funding instruments in order to identify and develop good practices and to draw recommendations on future strategies. In addition it discusses how to develop appropriate marketing campaigns to raise the international visibility of the European Research Area as an attractive labour market for researchers.



Research Infrastructures (RI)

ESF regards the provision of high-quality research infrastructures as a key factor in the development of the European Research Area (ERA), helping to sustain a robust, upto-date research environment that will attract the best brains from Europe and the rest of the world and achieve high quality results.

ESF's definition of Research Infrastructures includes:

- Large research facilities with a unique capability
- Medium or small-scale research infrastructures which have a European-wide or regional impact (single-site or distributed) for their disciplines
- Data bases or collections (single-site or distributed) of substantial research value and European impact
- Underpinning infrastructure, such as broadband connectivity or GRIDS, for European research

More details: www.esf.org/research-infrastructure

ESF Strategy in RI

The landscape within Europe for debating and planning current, upgraded and future new RI, has changed significantly in recent years with the emergence of ESFRI (Roadmaps for future RI) of RI development priorities in FP7, and of RI-centric ERA-NETS, as examples. ESF's Expert Committees and Boards have traditionally had a strong focus on RI and attention to RI issues is now also strengthening in the Standing Committees. In writing its Strategic Plan 2006-2010, ESF reflected on how best ESF could contribute to debates and strategies in RI and how best to organise itself internally to fit the new Strategic Plan direction. To increase the engagement in RI issues of the scientific committees and boards, which represent or have contact with the majority of RI-user as well as some RI-provider communities, ESF has strengthened their responsibilities for coordinating scientific debates, reviews and strategies in their specific research domains. Overarching RI issues are dealt with at the corporate level by the Chief Executive's Unit.

Particular activities during the last year have included a strong scientific quality assurance role in the EC-EUROHORCs survey of RI at the European level. This survey will form the basis for an online database for European RI to be launched early in 2008, which will be continuously upgraded and available to researchers and policy makers, hosted by the EC and with ESF acting as scientific quality gatekeeper. In the wider RI context fields, the ESF has taken initiatives in support of its MOs and the scientific community in the Open Access debate and in the long-term preservation of research data.

In addition to its traditional role in undertaking Reviews of planned or existing RI, ESF is now able to deploy instruments such as Member Organisation Fora and Forward Looks to address the range of RI strategic issues.

European Reference Index for the Humanities (ERIH)

The SCH project ERIH aims at improving access to and assessment of research output of European Humanities scholars. Developed under the Chairmanship of former SCH-member Alain Peyraube (now: ERC Scientific Council), ERIH publishes in 2007/08 the first 15 sets of "initial lists" of categorised research journals in the Humanities. ERIH is built on an original amalgamation of peer review, qualitative and quantitative analysis. ERIH will deliver an effective new tool with which to assess the multilingual products of Humanities research in Europe. It is a very timely project, as the "European Research Area" is beginning to help overcome national and disciplinary boundaries also in the Humanities. ERIH has attracted interest of subject associations and research funders across Europe, and as far afield as the Americas – both North and South – China, and Australia. ESF Member Organisations are invited to secure sustainability of and input to the project through the establishment of ERIH National Contact Points (ENCoP). Current subprojects consider the inclusion of nonjournal publications (books, conferences, online) and the links to the Open Access world.

More information: www.esf.org/erih



Exploratory Workshops

These small, interactive group sessions usually last 1-3 days and are aimed at opening up new directions in research and exploring emerging frontier research fields with potential impact on new developments in science. The workshops have a wide participation from across Europe and involve high-level scientists as well as young, independent researchers and scholars with leadership potential.

Successful proposals, selected following an open call for proposals and an international peer review process, demonstrate the potential for initiating follow-up research activities and/or developing future collaborative actions. Interdisciplinary topics are greatly encouraged.

More information: www.esf.org/workshops





February	
SCSS EW06-237	Transdisciplinary Review Of A Proposed Agenda For Social Science Research Related To Long-Term Energy Options. Dates and location: 1-2 February 2007, Zurich, Switzerland. Convened by: Thomas Flüeler (CH). ESF Representative(s): Frank Kuhn (FR)
EMRC EW06-007	Targeting Obesity-driven Inflammation (TOBI). Dates and location: 22- 23 February 2007, Vienna, Austria. Convened by: Thomas Stulnig (AT), Werner Waldhäusl (AT). ESF Representative(s): Katarína Poláková (SK)
March	
LESC PESC EW06-071	 Phenomics - Advancing High-Resolution Genome-Wide Phenotyping in Yeast. Dates and location: 2-4 March 2007, Göteborg, Sweden. Convened by: Anders Blomberg (SE). ESF Representative(s): Constantin Doukas (GR). Scientific Report: Genome-Wide Phenotyping in Yeast, 2 - 4 March 2007, Göteborg, Sweden
SCSS EW06-232	Historical Trajectories And Nested Identities: Content And Process In The Representation Of History And Its dynamic Relationships With National, Supranational, And Ethnic Identities. Dates and location: 15-18 March 2007, Goldegg (near Salzburg), Austria. Convened by: Janos Laszlo (HU). ESF Representative(s): Berry J. Bonenkamp (FR)
SCSS EW06-172	Changing housing And Leisure-Time Cultures: A Threat To Sustainable Development? Challenges For European Practices And Policies. Dates and location: 21-23 March 2007, Minorca, Spain.? Convened by: Montserrat. Pareja-Eastaway (ES), Erling Holden (NO), Sergi Marí (ES), Eli Stoa (NO)
April	
SCH EW06-162	Burial In 'other' Places In The European Past. Dates and location: 10-12 April 2007, Winchester, United Kingdom. Convened by: Nick Thorpe (UK), Andrew Chamberlain (UK). ESF Representative(s): Bohuslav Mánek (CZ)
LESC EW06-057	Model Organism Proteomics. Dates and location: 11-13 April 2007, Zurich, Switzerland. Convened by: Rudolf Aebersold (CH), Erich Brunner (CH), Sabine Schrimpf (CH). ESF Representative(s): Constantin Doukas (GR)

April	
LESC EW06-046	Earthtime: The European Contribution - Integration of High-Precision Geochronology and Astronomical Tuning for Calibration of the Cenozoic and Mesozoic Timescales. Dates and location: 22-24 April 2007, Amsterdam, Netherlands. Convened by: Klaudia Kuiper (NL), Dan Condon (UK), Frits Hilgen (NL), Lucas Lourens (NL), Urs Schaltegger (CH), Jan Wijbrans (NL). ESF Representative(s): Andreas Strasser (CH)
PESC EW06-046	Genesis And Applications Of Active Metal-Organic Frameworks. Dates and location: 25-28 April 2007, Dourdan, France.Convened by: Gérard Ferey (FR)
May	
PESC EW06-078	Random Matrix Theory: From Fundamental Physics To Application. Dates and location: 3-5 May 2007, Krakow, Poland. Convened by: Zdzislaw Burda (PL), Romuald Janik (PL), Jerzy Jurkiewicz (PL), Maciej A. Nowak (PL). ESF Representative(s): Thibaut Lery (FR)
SCSS EW06-179	Elite Formation, Modernization And Nation Building. Dates and location: 3-6 May 2007, Budapest, Hungary. Convened by: Victor Karady (HU)
SCSS EW06-241	Education and the Capability Approach – Towards an European Perspective for Welfare Service Research. Dates and location: 3-5 May 2007, Münster, Germany. Convened by: Hans-Uwe Otto (DE), Holger Ziegler (DE)
LESC EW06-216	Exploring New Methods for Prosopography in the Humanities and the Social Sciences. Dates and location: 10-11 May 2007, Uppsala, Sweden. Convened by: Donald Broady (SE), Harold Short (UK)
EMRC LESC SCSS EW06-011	Gene-Environment Developmental Models Of Emotional Disorders: Bridging Human And Animal Research. Dates and location: 11-13 May 2007, Rome, Italy. Convened by: Marco Battaglia (IT), Francesca D'Amato (IT). ESF Representative(s): Stella Canna-Michaelidou (CY), Eero Vasar (EE)
PESC LESC EW06-104	Biomineralization: From Biology To Materials. Dates and location: 11-14 May 2007, Århus, Denmark. Convened by: Henrik Birkedal (DK). ESF Representative(s): Venko N. Beschkov (BG)

PESC EW06-083	Tracing Dust In Spiral Galaxies: Radiative Transfer Studies In The Dawn Of A New Generation Of Observing Facilities. Dates and location: 13-17 May 2007, Ghent, Belgium. Convened by: Simone Bianchi (IT), Maarten Baes (BE), Emmanuel Xilouris (GR)
EMRC EW06-016	European Heart Modelling and Supporting Technology. Dates and location: 16-17 May 2007, Oxford, United Kingdom. Convened by: David Gavaghan (UK), Richard Clayton (UK), Alan Garny (UK), Peter Kohl (UK), Blanca Rodriguez (UK)
SCH SCSS EW06-150	Technology In Counselling And Psychotherapy: Mental Health Education And Service Delivery At University. Dates and location: 22-25 May 2007, Dublin, Ireland. Convened by: Derek Richards (IE), Brendan Tangney (IE). ESF Representative(s): Luisa Lima (PT)
LESC EMRC	Glycoscience Comes Of Age. Dates and location: 23-26 May 2007, Kolocen, Croatia, Convened by: Tony Merry (LIK), Gordan Lauc (HB), ESE
EW06-146	Representative(s): Josef Glössl (AT)
EW06-146 SCH SCSS EW06-113	 Gift-Giving And Reciprocity In Modern Societies. New Directions In Theoretical Reflection And Empirical Analysis. Dates and location: 24-26 May 2007, Bremen-Delmenhorst, Germany. Convened by: Christian Papilloud (DE), Frank Adloff (DE). ESF Representative(s): Dalina Dumitrescu (RO), Ulrike Landfester (CH)



June	
LESC EW06-218	Emerging Energies, Emerging Landscapes: Revisioning the Past, Constructing the Future. Dates and location: 5-8 June 2007, Paris, France. Convened by: Alain Nadaï (FR), Ana Isabel Afonso (PT), Dorle Dracklé (DE), Dan Van Der Horst (UK), Maarten Wolsink (NL), Rolf Wüstenhagen (CH). ESF Representative(s): T. Hefin Jones (UK)
SCH EW06-117	The Position Of Religious Minorities In The Ottoman Empire And Early Modern Iran. Dates and location: 14-16 June 2007, Istanbul, Turkey. Convened by: Sabine Schmidtke (DE), Camilla Adang (IL). ESF Representative(s): Bohuslav Mánek (CZ)
LESC EW06-117	Product Quality and Sustainability of Organic Sheep and Goat Production in Mediterranean Countries. Dates and location: 16-17 June 2007, Thessaloniki, Greece. Convened by: Georgios Arsenos (GR), Andrea Martini (IT). ESF Representative(s): Constantin Doukas (GR)
July	
SCH EW06-200	Shifting the Discourse: Climate Change as an Issue of Human Security. Dates and location: 21-23 June 2007, Oslo, Norway. Convened by: Karen O'Brien (NO), Asuncion St. Clair (NO). ESF Representative(s): Jacques Dubucs (FR)
SCSS EW06-193	Improving The Quality Of Qualitative Research. Dates and location: 25- 28 June 2007, Kristiansand, Norway. Convened by: David Silverman (UK), Anne Ryen (NO), Shalva Weil (IL). ESF Representative(s): Asbjørn Rødseth (NO)
SCSS EW06-231	Foggy Social Structures in European Welfare States: Irregular Migration and the Informal Economy. Dates and location: 13-15 July 2007, Osnabrück, Germany. Convened by: Michael Bommes (DE)
SCH EW06-121	Artists and Intellectuals and the Requests of Power. Dates and location: 27-28 July 2007, Merano, Italy. Convened by: Hans-Christian Guenther (DE)
August	
SCH EW06-161	Sextus Empiricus And Ancient Physics. Dates and location: 6-12 August 2007, Delphi, Greece. Convened by: Keimpe A. Algra (NL), Katherina lerodiakonou (GR)

Septembe	r
SCH EW06-139	Medieval Memories: Case Studies, Definitions, Contexts. Dates and location: 2-7 September 2007, Prague, Czech Republic. Convened by: Lucie Dolezalova (CZ)
LESC EW06-030	New Perspectives on Volcano Behaviour, Volcanic Hazards and Volcanism- Related Mineral Resources. Dates and location: 4-7 September 2007, Sovata, Romania. Convened by: Alexandru Szakacs (RO), Derek Rust (MA), Ioan Seghedi (RO). ESF Representative(s): Olgeir Sigmarsson (FR)
PESC LESC EW06-030	Biosupramolecular Chemistry. Dates and location: 4-8 September 2007, Bristol, United Kingdom. Convened by: Anthony Peter Davis (UK), Derek Neil Woolfson (UK)
LESC EW06-047	Econometric Time-Series Analysis Applied To Climate Research. Dates and location: 5-7 September 2007, Frascati, Italy. Convened by: Torben Schmith (DK), Søren Johansen (DK), Hans von Storch (DE). ESF Representative(s): Tiina Nöges (EE)
SCSS EW06-224	Exploring Symbolic Value Creation In Organizations. Dates and location: 6-9 September 2007, Milano, Italy. Convened by: Davide Ravasi (IT), Pablo Martin De Holan (ES), Phillips Nelson (UK), Violina Rindova (US). ESF Representative(s): Frank Kuhn (FR)
SCSS EW06-188	The Muslim World Through The Lens Of European Textbooks. Dates and location: 11-14 September 2007, Braunschweig, Germany. Convened by: Gerdien Jonker (DE)
SCH SCSS EW06-202	Feminisms and Activism: Transversal Politics in Contemporary Europe and across the Globe. Dates and location: 12-16 September 2007, Nicosia, Cyprus. Convened by: Susana Pavlou (CY), Nira Yuval-Davis (UK). ESF Representative(s): Anne Kovalainen (FI), Naomi Segal (UK)
LESC EW06-040	Understanding The Functional Consequences Of Natural Variation In Ecological Adaptation. Dates and location: 14-17 September 2007, Vienna, Austria. Convened by: Christian Schlötterer (AT), Jean-Michel Gibert (AT). ESF Representative(s): Marek Konarzewski (PL)
LESC EW06-037	Valuing Biofilm Services: The Beauty and the Beast. Dates and location: 19-22 September 2007, Lunz Am See, Austria. Convened by: Tom Battin (AT)

September	
SCH EW06-135	Global Theory, Local Practices, and the Research into Visual Matters. Dates and location: 19-23 September 2007, Vilnius, Lithuania. Convened by: Giedre Mickunaite (LT), Agne Narusyte (LT). ESF Representative(s): Jacques Dubucs (FR)
SCSS EW06-205	Sustainable Development and Transboundary Co-Operation in Mountain Regions. Dates and location: 20-22 September 2007, Budapest, Hungary. Convened by: Gianfranco Tamburelli (IT), Vanda Lamm (HU), Balázs Majtényi (HU), Ewa Poplawska (PL), Lenka Vostra (CZ)
SCH EW06-159	European Perspectives On The Black Atlantic. Dates and location: 26-29 September 2007, Huelva, Spain. Convened by: Pilar Cuder-Dominguez (ES), Benedicte Ledent (BE)
SCSS EW06-170	How To Measure Access: Definition, Measurement And Consequences Of A Changed Set Of Objectives In Transportation Designed To Meet The Needs Of People. Dates and location: 26-28 September 2007, Dresden, Germany. Convened by: Udo J. Becker (DE), Juliane Friedrich (DE), Regine Gerike (DE)
PESC EW06-095	Microfluidic: Experiments and Numerics. Dates and location: 27-30 September 2007, Castel Gandolfo (near Rome), Italy. Convened by: Sauro Succi (IT), Luca Biferale (IT), Federico Toschi (IT). ESF Representative(s): Venko N. Beschkov (BG), Elisabeth Guazzelli (FR)
EMRC EW06-032	Genetic Models of Disease Resistance in Livestock. Dates and location: 1-2 October 2007, Edinburgh, United Kingdom. Convened by: Bruce Whitelaw (UK), Helen Sang (UK). ESF Representative(s): Martin Röllinghoff (DE)

October	
EMRC EW06-032	Genetic Models of Disease Resistance in Livestock. Dates and location: 1-2 October 2007, Edinburgh, United Kingdom. Convened by: Bruce Whitelaw (UK), Helen Sang (UK). ESF Representative(s): Martin Röllinghoff (DE)
PESC EW06-076	Coherence, Decoherence & Entanglement Of Non-Degenerate Massive Quantum Systems. Dates and location: 4-7 October 2007, Vienna, Austria. Convened by: Markus Arndt (AT). ESF Representative(s): Farzam Ranjbaran (FR)
PESC EW06-081	Slow And Fast Light: Fundamental Issues And Applications. Dates and location: 7-10 October 2007, Venice, Italy. Convened by: Marco Santagiustina (IT), Carlo Someda (IT). ESF Representative(s): Antonella Di Trapani (FR)
SCSS EW06-187	Multilingualism from an Interdisciplinary Perspective. Dates and location: 7-10 October 2007, London, United Kingdom. Convened by: Gabriella Vigliocco (UK), Martin Pickering (UK)
PESC EW06-087	Glassy Liquids Under Pressure: Fundamentals And Applications Dates and location: 10-14 October 2007, Ustron, Poland. Convened by: Aleksandra Drozd-Rzoska (PL), Josep Tamarit (ES)
SCH EW06-142	Death in the Roman Empire among Religious Law, Social Performances and Ritual Practices. Dates and location: 11-13 October 2007, Paris, France. Convened by: Stéphane Verger (FR), Henri Duday (FR), John Scheid (FR)
PESC EW06-094	Multivariate Interpolation - Its Relation To Algebraic Statistics, Classical Algebraic Geometry And Computational Complexity Theory. Dates and location: 16-19 October 2007, Sestri Levante, Italy. Convened by: Kristian Ranestad (NO), Anthony Geramita (IT). ESF Representative(s): Manuel de León (ES)
PESC LESC EW06-069	Computational Approaches to the Role of Epigenetic Marks in Transcription Regulation. Dates and location: 17-20 October 2007, Basel, Switzerland. Convened by: Erik van Nimwegen (CH), Nikolaus Rajewsky (DE)
EMRC EW06-004	Clostridium Perfringens Induced Disease In Domestic Animals: Learning From Human Medical Science And Biotechnology For Understanding Animal Disease. Dates and location: 22-24 October 2007, Ghent, Belgium. Convened by: Filip Van Immerseel (BE), Magne Kaldhusdal (NO), Richard Titball (UK). ESF Representative(s): Martin Röllinghoff (DE)

October	
PESC EW06-082	Proton Conducting Materials For Next-Generation Solid Oxide Fuel Cells Dates and location: 22-24 October 2007, Genova, Italy. Convened by: Massimo Viviani (IT), Antonio Barbucci (IT), Paolo Piccardo (IT). ESF Representative(s): Antonella Di Trapani (FR)
EMRC EW06-014	Disentangling The Molecular Pathophysiology Of Schizophrenia: Developing A Research Road Map For A Multidisciplinary European Team Dates and location: 26-26 October 2007, London, United Kingdom. Convened by: Peter Falkai (DE), Sophia Frangou (UK)
November	
PESC LESC EW06-028	Laser Scanning For Alpine Natural Hazard Management - Development Of New Concepts. Dates and location: 15-17 November 2007, Obergurgl, Austria. Convened by: Johann Stötter (AT), Thomas Geist (AT), Norbert Pfeifer (AT)
SCH EW06-156	Hellenism: Alien Or Germane Wisdom? Dates and location: 22-26 November 2007, Budapest, Hungary. Convened by: Istvan Perczel (HU), Linos Benakis (GR), István Bodnar (HU)
SCH SCSS EW06-093	Models of Language Evolution, Acquisition and Processing. Dates and location: 25-28 November 2007, Nijmegen, Netherlands. Convened by: Lou Boves (NL), Roger Moore (UK), Louis Ten Bosch (NL). ESF Representative(s): Monique van Donzel (FR)
SCH EW06-126	Concepts Of Kingship In Antiquity. Dates and location: 28 November-1 December 2007, Padova, Italy. Convened by: Giovanni Lanfranchi (IT) ESF Representative(s): Peter Funke (DE)
December	
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EMRC EW06-128	From Standards To Concerted Programs Of Collective Action. The Standardization Process Of Medical Practices. Dates and location: 5-8 December 2007, Paris, France. Convened by: Virginie Tournay (FR) ESF Representative(s): Bob Pinedo (NL)
SCH EW06-163	Sign Language Vs. Gesture: Where Is The Boundary, And How Can We Know More? Dates and location: 5-7 December 2007, Rome, Italy Convened by: Gary Morgan (UK), Kearsy Cormier (UK)
SCSS EW06-225	Cross-National And Multi-Level Analysis Of Attitudes To Immigrants And Immigration In Contemporary Europe. Dates and location: 5-8 December 2007, Dublin, Ireland. Convened by: Richard Sinnott (IE), Michael O'Connell (IE), Kevin H. O'Rourke (IE)
SCH EW06-192	Reading and Censorship in Early Modern Europe. Dates and location: 10-13 December 2007, Barcelona, Spain. Convened by: María José Vega (ES), Emilio Blanco (ES). ESF Representative(s): Ulrike Landfester (CH)
LESC EW06-039	Mitigation Of Methane Emissions Through Microbial Oxidation On Landfills - Evaluation And Quantification Approaches. Dates and location: 12-14 December 2007, Vienna, Austria. Convened by: Marion Huber- Humer (AT), Peter Lechner (AT). ESF Representative(s): Sonja Lojen (SI)
SCSS EW06-177	The Future Of Representative Democracy. Dates and location: 13-15 December 2007, Berlin, Germany. Convened by: Wolfgang Merkel (DE), John Keane (UK)

Research Networking Programmes

These long-term Research Networking Programmes are the platform for nationally funded research groups to address major scientific and research infrastructure issues with the goal to advance the frontiers of science.

A successful programme proposal, selected following an open call for proposals 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 programmes are funded à la carte by ESF Member Organisations interested in funding such proposals recommended by ESF.

More information: www.esf.org/programmes

The following pages highlight new Research Networking Programmes which got underway in 2007. For detailed information please visit the relevant noted location on the ESF Website. For information on all current running programmes, please refer to the ABOUT ESF 2008 booklet or go to www.esf.org/programmes Standing Committee for the European Medical Research Councils (EMRC)

European Research Network for Investigating Human Sensorimotor Function in Health and Disease (ERNI-HSF) • (2007-2011)

11 contributing organisations

The primary aim of this Research Networking Programme (RNP) is to establish an interdisciplinary research forum that will drive forward our understanding of human sensorimotor function in health and disease (applied to the case of stroke). Stroke is by far the most common cause of human disability in the EU, and damage to cortical brain regions is a very common outcome of stroke.

The launch of the ESF RNP "European Research Network for Investigating Human Sensorimotor Function in Health and Disease" took place at its first Steering Committee Meeting in Strasbourg on 28 May 2007. The first Technical Workshop will focus on lesion reconstruction techniques and is scheduled to take place (in Budapest, Hungary) in April 2008. A second Technical Workshop focus on the investigation is planned for late 2008 will investigate diffusion tension imaging.



A first Scientific Meeting is planned for the second year of the Programme in 2008, and Budapest is considered a suitable location for the event. The budget for 5 years is 457 000€.

More information: www.esf.org/erni-hsf

Standing Committee for the Life, Earth and Environmental Sciences

Body-size and Ecosystem Dynamics: Integrating Pure and Applied Approaches from Aquatic and Terrestrial Ecology to Support an Ecosystem Approach (SIZEMIC) • (2007-2011)

11 contributing organisations

Body size and species identity both contribute to the complex webs of interaction that determine the structure and function of ecosystems. SIZEMIC will attempt a synthesis of size and species-based approaches for describing structure and energy flux in ecosystems and seek to understand how the properties of individuals lead to observed patterns of size structure and diversity. This synthesis, building on recent theoretical developments in aquatic and terrestrial ecology, is used to develop and test size-based models that might be used to assess and monitor the impacts of human activities on ecosystems. The programme provides a focus for collaboration between theoretical and applied ecologists working on terrestrial and aquatic ecosystems and provide opportunities for young European scientists to work across existing research boundaries.

More information: www.esf.org/sizemic



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European Networking Summer School (Plant Genomics and Bioinformatics) (ENSS)

10 contributing organisations

Plant genome research developed into one of the most dynamic discipline of molecular life sciences. Plants are recognized as the basis of a bio-based economy and play a fundamental rule to sustain our environment. European countries bundle their efforts in the field in national and regional research programmes. Some of those have already developed sustainable co-operations with joint research projects. But many of these activities are currently limited to Western Europe. The fundamental idea of this project is to support research networks all over Europe including third countries based by training young investigators and the exchange of knowledge and technological insides. Existing deficits in the access to technologies, resources, skills and know-how will be supported and overcome. The envisaged "European Networking Summer School" will organize a yearly summer course pursuing the training aspect, the exchange of ideas and the creation of an active and living network between European scientists, research organisations and research programmes. The support of the European Science Foundation for this activity would not only be necessary for its success but would also strengthen the political mark that the networking and training activity will set on a European integration and cooperation.

More information: www.esf.org/enss

Standing Committee for the Physical and Engineering Sciences

Harmonic and Complex Analysis and its Applications (HCAA) • (2007-2012)

11 contributing organisations

The main idea of this project is to establish a fruitful cooperation between two scientific communities: analysts with a broad background in Complex and Harmonic Analysis, and Mathematical Physics, and specialists in Physics and Applied Sciences. Harmonic and Complex Analysis is a well-established area in mathematics. Over the past few years, this area has not only developed in many different directions, but has also evolved in an exciting way at several levels: the exploration of new models in mechanics and mathematical physics and applications has at the same time stimulated a variety of deep mathematical theories.

It is a multidisciplinary programme at the crossroads of mathematics and mathematical physics, mechanics and applications, that proposes a set of co-ordinated actions for advancing in Harmonic and Complex Analysis and for increasing its application to challenging scientific problems. Particular topics which will be considered by this programme include Conformal and Quasiconformal Mappings, Potential Theory, Banach Spaces of Analytic Functions and their applications to the problems of Fluid Mechanics, Conformal Field Theory, Hamiltonian and Lagrangian Mechanics, and Signal Processing.

More information: www.esf.org/hcaa

Mapping the Detailed Composition of Surface-adsorbed Protein Layers on Biomaterials and Nanoparticles (EpitopeMap) • (2007-2012)

10 contributing organisations

Interactions between cells and biomaterials determine the level of success of medical implants. A new paradigm for thinking about cell-biomaterial interactions is emerging, where it is the effect that the biomaterial has on the proteins that adsorb to the material upon contact with physiological solution that is important, rather than the actual nature of the surface itself. The important parameter is thus the conformation and structure of the adsorbed protein layer, and in particular, the very outer protein layer, as this is what the cells actually see. In this program it is intended to bring together scientists working in the traditionally separate areas of biomaterials and nanoparticles, in order to develop and apply the most cutting-edge characterization techniques to understanding the nature of the surface-adsorbed protein layer on biomaterials and nanoparticles, and the effect of this on biocompatibility and nanoparticle toxicity. Envisaged highlights of the program include the exchange of ideas between the traditionally distinct research areas and the bringing together of a range of physical (characterisation and visualisation) techniques with biological and medical approaches to addressing the common goals, which will result in a great increase in the pace of understanding, a rational basis for risk assessment, and a reduction in the barriers to developing commercial applications of biomaterials and nanoparticles.

More information: www.esf.org/epitopemap

Multidisciplinary Frontiers of Magnetic Resonance (EMAR) • (2007-2012)

18 contributing organisations

Magnetic resonance techniques are among the most powerful and versatile spectroscopic tools with applications in many different fields. Their wide range of applications stimulates a great deal of cross-disciplinarity and the history of their continuous advances parallels that of their diverse fields of application. The agreement between different European Magnetic Resonance organizations to jointly run EUROMAR provides an opportunity to foster NMR and EPR in Europe to a leading international role and to transfer this strength along the complete scientific network that develop and uses these techniques. The proposal contains instruments to enhance interdisciplinarity and the discovery of new fields at the frontiers between different disciplines as well as training activities aiming at ensuring an optimal transfer of the knowledge down to the student level and across the national boundaries, through the participation of National Societies.

More information: www.esf.org/emar

Nanoscience and Engineering in Superconductivity (NES) • (2007-2012)

17 contributing organisations

Confined condensate and flux in superconductors will be investigated at nanoscale by using various confinement patterns introduced artificially in the form of individual nanoplaquettes, their clusters and huge arrays. The dependence of the quantization effects on the confinement length scale and the geometry will be studied. The boundary conditions, defining the confinement potential, will be tuned by using the hybrid superconductor/normal and superconductor/magnet interfaces in superconducting nanosystems. The evolution of superconductivity at nanoscale will be revealed by determining the size dependence of the superconducting critical temperature and the gap in mass selected clusters and nanograins and also by studying superfluidity in different restricted geometries. Flux confinement by magnetic dipoles and other periodic pinning arrays in superconductors will be investigated.

By tailoring the confinement, physical properties of the confined condensates and flux can be designed starting from the fundamental Ginzburg-Landau equations (including their generalization to two component order parameter) and applying them to the real samples with the boundary conditions imposed at the physical sample's boundary. This research will reveal the fundamental relations between quantized confined states and the physical properties of the superconducting quantum coherent systems, which will be also of importance for other scientific fields (superconducting elements for quantum computing, nanoelectronics, hydrodynamics, liquid crystals, plasmas).

More information: www.esf.org/nes

Standing Committee for the Social Sciences (SCSS)

European Neuroscience and Society Network (ENSN) • (2007 - 2012)

10 contributing organisations

Despite evidence that advances in the neurosciences are having a significant impact on the lives of individuals across Europe, there has been little formal engagement within the European social sciences with the ethical, social and legal implications of recent developments in the new brain sciences. The European Neuroscience and Society Network (ENSN) aims to establish a multidisciplinary forum for timely and necessary engagement with these issues, through the development of research strategies, conferences and workshops that will bring together leading European neuroscientists and social scientists for sustained discussions and cross-disciplinary exchanges about the present and future impact of advances in the neurosciences on our lives.

More information: www.esf.org/ensn



The ESF Research Conferences Scheme provides the opportunity for leading scientists and young researchers to meet for discussions on the most recent developments in their fields of research, and acts as a catalyst for creating new synergistic contacts throughout Europe and the rest of the world. It develops principally through the establishment of longterm partnerships between ESF and national and international organisations, including universities.

ESF Research Conferences currently cover the following scientific areas: Physics, Biophysics and Environmental Sciences; "Biology+:" Molecular Biology at the Interface with other Science Disciplines (Chemistry, Physics, Computing Science, Mathematics and Modelling, Space Science, Clinical Medicine, Engineering, Environmental Science, Humanities and Social Sciences); Social Sciences and Humanities; Biomedicine; Global Health Economy; Global Change Research;



Chemistry. Several initiatives in other scientific areas are also under discussion. ESF Research Conferences are open to scientists worldwide, whether from academia or industry. Conferences may be single events or series, usually with a biennial meeting focusing on specific aspects of the same general topic. They normally last for four or five days and up to 150 participants and invited speakers may attend. Chairs select participants from applications received as a result of publicising the Conferences.

The activities of the Conferences Unit also include World Conferences (eg ESF-JSPS Frontier Science Conferences for Young Researchers) as well as a series of Summer and Winter Schools that provide advanced scientific training in Physics.

The ESF Conferences Unit, which is located in Brussels with a liaison base in Strasbourg, also acts as service provider for conferences arising from other ESF instruments.

More information: www.esf.org/conferences

ESF Research Conferences in 2007

February

Trends in Optical Micromanipulation

ESF-FWF Conference in Partnership with LFUI, 4 - 9 February Universitätszentrum Obergurgl, Obergurgl, (Ötz Valley, near Innsbruck), Austria Chairs: M.A. Ritsch-Marte (Innsbruck) & Stephan Bernet (Innsbruck)

March

The Origin of Galaxies: Exploring Galaxy Evolution with the New Generation of Infrared-Millimetre Facilities ESF-FWF Conference in Partnership with LFUI, 24 - 29 March, Universitätszentrum Obergurgl, Obergurgl, (Ötz Valley, near Innsbruck), Austria Chairs: E. Van Kampen (Innsbruck) & J.S. Dunlop (Edinburgh)

April

The Impact of the Environment on Innate Immunity: At the Defence Frontier -The Biology of Innate Immunity

ESF-FWF Conference in Partnership with LFUI, 22 - 27 April

Universitätszentrum Obergurgl, Obergurgl, (Ötz Valley, near Innsbruck), Austria Chairs: P. Schmid-Hempel (Zurich), S. Armitage (Copenhagen) & J. Kurtz (Münich)



Participants at the ESF-EMBO Symposium on 'Biological Surfaces and Interfaces', Sant Feliu de Guixols, Spain 2007

May

Humanising Model Organisms to Understand the Pathogenesis of Human Disease ESF-Wellcome Trust Conference, 1 - 4 May, Wellcome Trust Genome Campus, Hinxton (near Cambridge), UK

Chairs: R. Wolf (Dundee), S. Brown (Harvell), R. Fodde (Rotterdam), R. Balling (Braunschweig), N. Hastie (Edinburgh) & N. Rosenthal (Monterotondo Scalo)

The International Regulation of New Medical Technology: Health Technology Adoption in the European Union, North

America, East Asia and in the Developing World

ESF-IFW Conference on The Global Health Economy, 7 - 10 May, Salzau Castle, Salzau (near Kiel), Germany

Chairs: F.B. Kristensen (Copenhagen) & L. Rochaix (Saint Denis la Plaine)

Literature for Europe: European Identities and European Literature in a Globalizing World ESF-LiU Conference, 12 - 16 May, Vadstena Klosterhotel, Vadstena, Sweden Chair: T. D'haen (Leuven)

Ocean Controls in Abrupt Climate Change ESF-FWF Conference in Partnership with LFUI, 19 - 24 May, Universitätszentrum Obergurgl, Obergurgl (Ötz Valley, near Innsbruck), Austria Chairs: R. Zahn (Bellaterra) & I.R. Hall (Cardiff)

June

Animal Biotechnology and its Applications to Animal and Human Health ESF-Wellcome Trust Conference, 14 - 16 June Wellcome Trust Genome Campus, Hinxton (near Cambridge), UK Chairs: H. Sang (Roslin), J. Kaufman (Compton) & M. Georges (Liège)

Pharmacogenetics and Pharmacogenomics ESF-UB Conference in Biomedicine, 15 - 20 June Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain Chairs: P. Beaune (Paris), M. Eichelbaum (Stuttgart) & M. Pastor Anglada (Barcelona)

July

Biological Surfaces and Interfaces

ESF-EMBO Symposium, 1 - 6 July, Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain

Chairs: M. Textor (Zurich), G. Marletta (Catania), J. Gold (Göteborg) & J.P. Spatz (Heidelberg)

September

Higher Education and Social Change at the Beginning of the Twenty-First Century ESF-LiU Conference, 15 - 19 September, Vadstena Klosterhotel, Vadstena, Sweden Chairs: J. Brennan (London) & M. Prenzel (Kiel)

Biomagnetism and Magnetic Biosystems Based on Molecular Recognition Processes ESF-EMBO Symposium, 22 - 27 September, Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain

Chairs: J. Bland (Cambridge), K.R.A. Ziebeck (Loughborough) & T. Mitrelias (Cambridge)

October

The Global Organisation of Biomedical Innovation: Funding, Intellectual Property Rights, Incentives, and the Diffusion of New Technology

ESF-IfW Conference on The Global Health Economy, 3 - 8 October, Salzau Castle, Salzau (near Kiel) Germany

Chair: to be announced

Three Dimensional Sensory and Motor Space: Perceptual Consequences of Motor Action ESF-EMBO Symposium, 6 - 11 October Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain Chairs: J. Smeets (Amsterdam) & F. Bremmer (Marburg)

Rare Diseases: Transporters and Channelopathies ESF-UB Conference in Biomedicine, 13 - 18 October Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain Chairs: M. Palacin (Barcelona) & S. Ayme (Paris)

Comparative Genomics of Eukaryotic Microorganisms:Eukaryotic Genome Evolution ESF-EMBO Symposium, 20 - 25 October, Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain Chairs: E.J. Louis (Nottingham) & T. Boekhout (Utrecht)

Pathways of Human Dignity: From Cultural Traditions to a New Paradigm ESF-LiU Conference, 31 October - 4 November, Vadstena Klosterhotel, Vadstena, Sweden Chairs: G. Stroumsa (Jerusalem) & M. Düwell (Utrecht)

Global Environmental Change: The Role of the Arctic Region ESF-VR-FORMAS Conferences on Global Change Research, October / November (exact dates to be announced), Utsikten Meetings, Nynäshamn, Sweden Chairs: J. Thiede (Bremerhavn), D. Dahl-Jensen (Copenhagen) & S. Sörlin (Stockholm)

November

Probing Interactions between Nanoparticles, Biomaterials and Biological Systems - Alternative Approaches to Bio- and Nano-Toxicity

ESF-EMBO Symposium, 3 - 8 November, Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain

Chairs: K.A. Dawson (Dublin) & Y. Lynch (Dublin)

Systems Biology ESF-UB Conference in Biomedicine, 17 - 22 November, Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava), Spain Chairs: L. Serrano (Heidelberg), R. van Driel (Amsterdam) & R. Aebersold (Zürich)

Electronic Democracy ESF-LiU Conference, 21 - 25 November, Vadstena Klosterhotel, Vadstena, Sweden Chair: H. Kubicek (Bremen)

Functional Genomics: Synthetic Biology ESF-UB Conference in Biomedicine, 24 - 29 November Hotel Eden Roc, Sant Feliu de Guixols, Spain Chairs: V. de Lorenzo (Madrid), S. Panke (Zürich), N. Packard (Venezia) & A. Valencia (Madrid)

December

Water Interfaces in Physics, Chemistry and Biology: A Multi-Disciplinary Approach ESF-FWF Conference in Partnership with LFUI, 8 - 13 December Universitätszentrum Obergurgl, Obergurgl (Ötz Valley, near Innsbruck), Austria Chairs: M. Bellisent-Funel (Gif/Yvette) & J. Dore (Canterbury)



Participants at the ESF-JSPS Workshop for Young Researchers on Functional Genomics, Japan

Summer & Winter Schools

The 24th Jerusalem Winter School in Theoretical Physics: The Lives of Low-Mass Stars and their Planetary Systems ESF-IAS Winter School in Physics, 27 December - 5 January Jerusalem, Israel Course Director: D. Gross (Jerusalem) Extra-Solar Planets: The Detection, Formation, Evolution and Dynamics of Planetary Systems ESF-PPARC-EPSRC Summer School in Physics & Astronomy (SUSSP), 28 May - 8 June, Sabhal Mor Ostaig, U.K.

Course Director: B.A. Steves (Glasgow)

Nanomedicine ESF-UB Summer School, 10-15 June, Cardiff, U.K. Course Director: R. Duncan (Cardiff)

String Theory and the Real World: From Particle Physics to Astrophysics ESF School of Theoretical Physics, 2 - 27 July, Les Houches, France Course Director: L. Beaulieu (Paris)



Participants at the ESF-MSHE-PAN Conference on Controls, Constrains and Quanta, Poland 2007

ESF World Conferences

Research Integrity: Fostering Responsible Research

16-19 September

Calouste Gulbenkian Foundation, Lisbon, Portugal

Chairs: A. Mayer (ESF) & N. Steneck (ORI)

In 2000 ESF published a review of good scientific practice in research and scholarship (ESF Science Policy Briefing N° 10. This followed an extensive study of policies dealing with research integrity in the ESF member organisations and worldwide).

Following an approach from the U.S. Office of Research Integrity (ORI - part of the US Department of Health and Human Services), ESF, together with the ORI, promoted a World Conference to develop research integrity by focusing on fostering responsibility in research at all levels. This responded to the recent well-publicised cases of misconduct, fraud and questionable research practices and seeks to retain public confidence and establish clear best practice frameworks at an international level. The primary goal was to assemble an international group of researchers, research administrators from funding agencies, research organisations performing research, academies, publishers, and policy makers to improve, harmonise, publicise, and make operationally effective international policies for the responsible conduct of research.

The Conference took place on 16-19 September in Lisbon as a European Commission event in the programme of the forthcoming Portuguese Presidency of the European Union through the Ministry for Science, Technology and Higher Education (MCTES) through Funadacio Cientifica y Tecnologica (FCT) and the Gabinete de Relações Internacionais da Ciência e do Ensino Superior (GRICES) and the Gulbenkian Foundation (Portugal). The event was also in partnership with the International Council for Science (ICSU) and NATO who agreed to make provision for travel grants to assist participants from developing countries and NATO partners and Mediterranean Dialogue countries. ESF and ORI also received help and support from EMBO, the Committee on Publication Ethics and the UK Research Integrity Office. In addition, representatives from the US National Science Foundation, US NIH, the Japan Society for the Promotion of Science, ALLEA, UK MRC, MPG, DFG, CNRS and the European Forum for Good Clinical Practice were involved in the conference planning.

ESF intends to follow up the Conference with a MO Forum on Research Integrity, allowing MOs to develop ideas and approaches to bring the conclusions of the Conference forward.



EUROCORES Programmes

The aim of the European Collaborative Research (EUROCORES) Scheme is to enable researchers in different European countries to develop collaboration and scientific synergy in areas where European scale and scope are required to reach the critical mass necessary for top class science in a global context.

The scheme provides a flexible framework which allows national basic research funding and performing organisations to join forces to support excellent European research in and across all scientific areas.

Until the end of 2008, scientific coordination and networking is funded through the EC FP6 Programme, under contract no. ERAS-CT-2003-980409. As of 2009, the National Funding Organisations will provide the funding for the scientific coordination and networking in addition to the research funding.

In 2007, the EUROCORES Scheme had 30 fully operating programmes involving more than 60 different funding agencies from 33 countries with 23 programmes in the research phase, bringing together more than 110 million Euros of national research funding. The programmes have so far generated more than 700 peer reviewed publications.

For national research funding or performing agencies the attraction of EUROCORES is the possibility of supporting trans-national research projects involving several partners by simply synchronising funding decisions, without the need to transfer money into a common pot. It also offers the possibility for them to develop collaborative research in areas of common strategic priority. The high-quality international peer review operated by ESF, which is the basis for the national funding decisions, creates a quality benchmark for national research projects.

More information: www.esf.org/eurocores



From the Open Call for Theme Proposals in 2007, the ESF Standing Committees and the ESF Science Advisory Board have recommended to publish the Calls for proposals for the following six EUROCORES Programmes proposals:

The themes selected in 2007 are

Standing Committee for the European Medical Research Councils (EMRC)

Gene-Lifestyle Interactions in Coronary Heart Disease (EuroHEART)

Cardiovavascular disease accounts for almost one in every two adult deaths worldwide and accounts for about €200 billion in economic costs per year in the EU alone. Coronary Heart Disease (CHD), its major manifestation, is the single leading cause of death in Europe and a major source of disability. Although there is evidence that the incidence of CHD is jointly determined by genetic and lifestyle factors, the quantitivative interplay of these factors remains poorly understood. Such knowledge is important for a full understanding of the causes of CHD. It is also necessary for the development of disease prevention strategies, such as optimum targeting of interventions and identification of targets for novel therapeutics. An important implication of the reliable demonstration of gene-lifestyle interactions is that they may suggest approaches for modifying the effects of deleterious genes by avoiding deleterious lifestyle exposures. EuroHEART proposes a competitive European framework to study the separate and combined effects of genetic and key lifestyle factors on the incidence of major clinical coronary outcomes. It will help to realize the potential of existing large-scale, pan-European prospective cohorts. Studies in which key lifestyle factors have already been recorded in a comprehensive and standardized fashion among initially healthy participants, and which have already accrued suffisant numbers of incident major coronary outcomes for reliable assessment of gene-lifestyle interactions, will be required for detailed genetic and biochemical measurements in stored samples.

The reliable demonstration of genelifestyle interactions will provide a fuller understanding of the aetiology of CHD and will enable development and refinement of CHD prevention strategies, such as optimum targeting of existing interventions and identification of targets for novel therapeutics.

A discussion on how to better take advantage of existing initiatives in this research domain in Europe is on-going.

More information: www.esf.org/euroheart

Standing Committee for the Humanities (SCH)

Better Analyses Based on Endangered Languages (EuroBABEL)

The main purpose of the EuroBABEL: programme is to promote empirical research on under-described endangered languages, both spoken and signed, that aims at changing and refining our ideas about linguistic structure in general and about language in relation to cognition, social and cultural organisation and related issues in a trans-/multidisciplinary perspective. The diversity of the world's languages is on the verge of becoming dramatically reduced in the decades to come. Partly due to the attention that has been drawn to this problem, the field of linguistics has been moving towards taking the diversity of languages more fully into account. The dramatic change in the amount and the nature of primary data that is being collected and analyzed has proven to have, and will continue to have, a profound influence on our insights into the human language faculty. EuroBABEL will solidify this development and strengthen the impact of European research on linguistics as a whole. By conducting the research in close cooperation with researchers in the countries where endangered languages are spoken, the process of linguistic description, documentation and analysis of under-described languages will be accelerated.

The EuroBABEL programme is crucially different from - and complements - existing documentation initiatives in that the emphasis lies on bringing the newly gathered data to bear on the development of linguistic theory and all areas concerned with the study of language.

More information: www.esf.org/eurobabel



Standing Committee for the Life, Earth and Environmental Sciences (LESC)

Membrane Architecture and Dynamics (EuroMEMBRANE)

It never ceases to amaze how a layer of oil 5 nm thin makes the difference between life and death. The physical laws that govern the behaviour of cellular membranes and their component lipids and proteins are often counterintuitive, especially when coupled with the often bewildering variety of lipids and proteins found in any particular membrane. Recent technical developments in lipidomics, proteomics and membrane protein structure determination have, however, sparked a new wave of interest in this field.

The aim of the EUROCORES programme EuroMEMBRANE is to answer long-standing questions in membrane biology using cutting-edge technologies. These will address functional problems in a quantitative manner bringing together experimental tools with theoretical approaches. There will be a special emphasis on lipid-lipid and (glyco)lipid-protein interactions in the plane of the membrane in health and disease. Using various model organisms would allow cross-species comparison and bring an evolutionary perspective to biomembrane studies. This type of research requires a strong interdisciplinary collaboration that covers biological, chemical, physical and computational aspects of membranology over a broad dynamic range of time and length.

More information: www.esf.org/euromembrane

Standing Committee for the Physical and Engineering Sciences (PESC)

Chemical Control at the Nanoscale (EuroNANOCHEM)

The ability to understand, manipulate and control chemical reactions is one of the great challenges of chemistry since it has a myriad of applications and is very likely to form the basis for future technologies. Recent research has shown that it is possible to control the excitation and dissociation of molecules using both light and electrons which, when coupled with the spatial resolution gained from the scanning tunnelling microscopes, may provide a route for developing such chemical control. Such "single molecule engineering" requires both selective bond cleavage in target molecules to allow subsequent management of the local site chemistry and the ability to develop techniques that allow the chemistry to be controlled on a spatial scale (nanoscale) and molecular architectures to be developed.

The aim of EuroNANOCHEM is therefore to develop a pan-European programme that utilises state-of-art research in femtosecond chemistry, electron-molecule physics and Scanning Tunnelling Microscopy (STM) to gain chemical control at the nanoscale by bringing together groups and expertise in atomic, molecular and optical physics, chemical physics, optics, nanotechnology and surface science.

More information: www.esf.org/euronanochem

Standing Committee for the Social Sciences (SCSS)

Higher Education and Social Change (EuroHESC)

The EUROCORES programme on Higher Education and Social Change is designed to develop and implement interdisciplinary comparative research into the relationship between higher education and society. This will include the development of theories and hypotheses about this relationship and the factors which influence it, as well as addressing methodological issues of comparative research in this field (e.g. data comparability, combination of quantitative and qualitative research, and different levels of analysis).

Moreover EuroHESC is going to explore ways of utilising other social science datasets – for example, the European Social Survey (ESS) and Eurostudent – in order to set higher education research more firmly within the different social and cultural settings in which it occurs. Finally EuroHESC is expected to make a significant contribution to the development of research capacity in the field of higher education research and to an improved integration between the field and related scientific fields.

More information: www.esf.org/eurohesc



Highlights from SONS 1, the first EUROCORES Programme to finish

The SONS I Programme (first call) ran from 2004 to 2007, bringing together over 70 research groups from 20 countries.

During the programme, the scientists involved in this exceptional EUROCORES Programme published more than 550 articles, 80 % of which in peer reviewed journals. More than 15 contributions to books have been made, either by providing dedicated chapters or acting as editors, and even monographs have been published. In addition, almost 200 presentations dedicated to research topics in SONS I were given at international conferences, several as invited talks or key-note lectures. More than 60 posters were produced, too. Next to these purely scientific findings, other results were also obtained in this important programme: SONS-supported research was for example featured in at least three TV appearances, underlining the importance of the outreach to the general public, and more than 20 websites containing research activities of the SONS I Programme were available. Two SONS researchers, Dr. Massimo Cavallini from the CRP Fun-SMARTs and Dr. Jeroen Cornelissen, from the CRP BIONICS were the recipients of the EURYI award in 2006 and in 2007 respectively. Moreover, the development of several patents resulted from the work supported by the SONS Programme.

At the EMRS Spring Meeting 2007, the SONS Programme was officially concluded with a joint workshop which brought together scientists from SONS 1 and SONS 2. At this occasion, members of the Review Panel present at the meeting had time to reflect on the output and the impact of the SONS Programme as a whole. The Review Panel members Professor Richard Bushby, Professor Joseph Gyulai, Professor Pavel Kratochvil and Professor Gareth Redmond, agreed on the fact that the SONS programme covered a very broad spectrum of activities from theoretical physics to molecular biology and that a critical mass of researchers was brought together within focussed collaborations. According to them, the synergies that emerged from these collaborations contributed to the fostering and sustainable development of a leading role for European nanoscience in some key-areas, e.g. selforganisations of molecules on surfaces, optical tweezing, single molecule measurements, etc. Some of the results will have potential value as Intellectual Property Rights.

Looking back at the past three years, the Review Panel felt that the programme achieved all goals outlined in the original call for proposals. However, the members pointed out that nanoscience is an area in which Europe is strong and that the efforts must continue. An important area for nanoscience would be the development of new materials and manufacturing processes minimising the environmental impact of new products and services. Further important areas would be the convergence of nanoscience and information technology, i.e. the convergence of atoms and bits to achieve embedded intelligence, and subsequently the convergence between nanoscience, information technology and life science. The Review Panel stated that in order to move forward in these areas, it would be necessary to identify the appropriate human and infrastructural resources at the European level.



Other current EUROCORES programmes

- EMRC ESF Standing Committee for the European Medical Research Councils
- SCH ESF Standing Committee for the Humanities
- LESC ESF Standing Committee for the Life, Earth and Environmental Sciences

- PESC ESF Standing Committee for the Physical and Engineering Sciences
- SCSS ESF Standing Committee for the Social Sciences

Standing Committee for the European Medical Research Councils (EMRC)

Development of a Stem Cell Tool Box (EuroSTELLS)

Stem cell-based approaches are currently being developed to repair or regenerate damaged tissues and to treat severe diseases such as diabetes, chronic heart failure, stroke, spinal cord injuries and other degenerative disorders. However, much remains to be learned and many technical obstacles must be overcome before the therapeutic potential of stem cells can be fully realised. Recognising the importance of promoting and investing in stem cell research in Europe, the ESF launched the EUROCORES programme "Development of a Stem Cell Tool Box" (EuroSTELLS) in 2005. With 21 research groups from 11 European countries, this programme aims at generating fundamental knowledge on stem cell biology, setting up the bases for comparative analyses of stem cells of different origins, and exploring their future clinical application. The ability to isolate, culture and manipulate stem cells ex vivo is a critical step towards elucidating their biological properties and developing their biotechnological and therapeutic potential. EuroSTELLS promotes and supports networking activities, contributing to create a critical mass of expertise in the stem cell field in Europe. The conference on "General Biology of Stem Cell Systems" held in Venice on 19-21 March 2006 fostered innovative and multidisciplinary collaborations as well as synergy with other European and international stem cell initiatives. Training activities, including workshops and summer schools, allow

harmonisation of research tools, definitions and protocols in stem cell biology and increase quality assurance. The most recent workshop, "Challenges in Stem Cell Differentiation and Transplantation" was held in Milan on 30 September – 3 October 2007. Attended by over 80 participants with world-renowned researchers in the field of stem cell research, this workshop also focused on the practical hurdles that need to be overcome for the therapeutic application of stem cells. Dissemination of EuroSTELLS activities, including a discussion of developments in the stem cell field and their impact on quality of life and public health, has generated wide media impact, including coverage on numerous international websites.

More information: www.esf.org/eurostells

Pan-European Clinical Trials (ECT)

Pan European Clinical Trials is a unique programme that coordinates funding for pan-European non-commercial, investigatordriven clinical trials addressing questions that have a strong impact on the quality of life, morbidity and mortality of the European population. The ECT programme provides a framework for the implementation of pan-European clinical trials in compliance with current national legislation and European regulations. Two pan-European clinical trials aimed at treating rare diseases in paediatric populations are funded under this programme.

The first is EURAMOS (European and American Osteosarcoma Study Group), a randomised trial of the European and American Osteosarcoma Group to opti-

mise treatment strategies for respectable osteosarcoma based on histological response to pre-operative chemotherapy that involves 150 clinical centres in 13 European countries, U.S. and Canada. EURAMOS is recruiting 1,400 patients over the next few years and has already recruited 1,000 patients that is more than any previous ostersarcoma trial performed.

The second trial is PROFIDYS, a randomized trial aimed at reducing bone morbidity using an oral biphosphonate in fibrous dysplasia that involves clinical centres in five European countries. As this disease is so rare, approximately 160 patients are being recruited for this trial.

By promoting and supporting networking, the ECT programme fosters synergy with other European and international initiatives. Training activities have contributed to the development of the necessary expertise for the implementation and management of multi-centre, pan-European academic clinical trials, in compliance with regulations for patient safety. Activities in 2008 will include a Clinical Trials Training Course in London on 24-25 January. Dissemination activities have brought together clinicians, ethicists, legal experts, policy makers, charities and funding bodies, representatives from regulatory agencies, professional associations and patient organisations to discuss current regulatory and ethical issues to ensure patient safety in the conduct of academic clinical trials. The impact of these activities is evidenced by the wide coverage in the media and specialised publications as well as by the high social expectation.

More information: www.esf.org/ect

Science of Protein Production for Functional and Structural Analysis (EuroSCOPE)

Joint Activity with LESC

A better understanding of the function of a protein requires a detailed analysis of its structure. Such studies (e.g. carried out on crystallised protein) require substantial amounts of high quality protein. The difficulties of producing sufficient amounts of protein for a structure-function analysis as well as for X-ray analysis (crystallisation)



constituted thus far a major bottleneck for proteomics. Although this was and is well recognised by the scientific community, funding for a programme addressing this topic systematically has not been available in the post-genomic phase that started proteomics.

The EuroSCOPE programme bridges this gap by bringing together resources within Europe to accelerate research on protein production through scientific innovation and collaboration. The programme addresses the major stumbling blocks in the production of proteins for functional and structural analysis. With the focus on the basic understanding of the mechanisms underlying protein production, targeting, folding and stability, which eventually may result in the improvement of existing and the design of new expression systems. The detailed subfields of research include bottlenecks in gene expression; targeting the synthesised protein to a specific cellular location; and folding and stability of expressed proteins.

EuroSCOPE organised a workshop on "Protein Production for Functional and Structural Analysis" at the 13th European Congress on Biotechnology (ECB13) wich took place on 18 September in Barcelona, and will join forces with the Microbial Physiology section of the European Federation of Biotechnology to organise the fifth meeting in the series Recombinant Protein Production (RPP) on 24-28 September 2008 in Sardinia, Italy.

More information: www.esf.org/euroscope

Stress and Mental Health (EuroSTRESS)

The EUROCORES programme Euro-STRESS will focus on two important questions through an interdisciplinary approach:

- How can early life experience and genetic background in concert evoke lasting changes in signalling pathways within the brain, resulting in altered behaviour and increased vulnerability to negative effects of stress in adulthood?
- How can periods of repetitive stress or traumatic events in adulthood (against a background of life history and genetic vulnerability) disrupt brain function such that the chances of precipitation of specific psychiatric disorders are increased?

In 2007 EuroSTRESS review panel went through the selection process of both outline and full proposals. Four proposals were prioritised and will intiate their collaboration in 2008.

More information: www.esf.org/ eurostress

Standing Committee for the Humanities (SCH)

BOREAS: Histories from the North -Environments, Movements, Narratives

The circumpolar North is now widely accepted as a unique early warning system for changing relations between society and the environment.

This region, which includes the Arctic and the sub-Arctic, has moved to the centre of global debates on environmental change, human adaptation, new post-cold-war

partnerships and issues of post-colonial governance and strategy. However, much Arctic research has been dominated by natural science agendas, looking at the region as a natural "laboratory".

Inhabitants of the Arctic are often seen as natural variables, while their understanding of the natural, cultural and spiritual processes that have shaped Arctic civilisations have not been adequately taken into account.

For political and other reasons, the circumpolar region has only recently re-emerged as "one" area, revealing past connections and current common problems and pointing to future challenges, such as the relationships between communities and the modern state (whether Soviet, post-Soviet or Welfare), NGOs and the global economy.

The involvement of local populations as research partners is very advanced in the North, and BOREAS offers a unique opportunity for scholars to explore the intersections of Southern (or "Western") ways of knowing the environment and their local counterparts. BOREAS can redefine the geography of knowledge in Northern Europe and relate it to circumpolar regions worldwide, by moving beyond South-North dichotomies and centre-periphery models, as well as by crossing disciplinary and national boundaries. BOREAS also invites the research community to reflect upon their own approaches to studying the North.

More information: www.esf.org/boreas

Consciousness in a Natural and Cultural Context (CNCC)

Until recently, many scientists considered consciousness to be an unsuitable topic for scientific research. Prompted by technological developments (including brain imaging techniques) as well as conceptual changes, this attitude has shifted, and scientific interest in consciousness has greatly increased during the past decade. Currently, the explanation of consciousness is considered by many to be one of the major unsolved problems of modern science.

The CNCC programme aims to meet this need by fostering top-quality consciousness research in Europe. Given the wide variety of phenomena which fall under the heading of consciousness – perception, emotion, attention, self-awareness, sensation, intentionality, dreaming, wakefulness and others – progress will depend on the integration of available scientific resources from a variety of theoretical and empirical disciplines and methods. Empirical data can serve to challenge and validate theoretical analyses, while conceptual analysis can provide directions and tools for the empirical scientists.

The CNCC programme aims to support the emergence of an integrated and truly interdisciplinary science of consciousness, within the humanities and between the humanities and the social, natural, and biomedical sciences. The programme encourages research that explicitly addresses the natural and cultural dimension of consciousness.

More information: www.esf.org/cncc



Inventing Europe: Technology and the Making of Europe, 1850 to the Present

This EUROCORES programme aims at establishing robust transnational research teams that develop novel perspectives on the mutual shaping of transnational technology developments and the process of European integration. Inventing Europe thus looks at the processes and perceptions of technological change as an important arena for constructing Europe on the material, institutional, and discursive levels. The programme places the history of European integration within a broader transnational history of Europe, and seeks to transcend the range of national histories of Europe. From this perspective, European integration began in the latter part of the 19th century and unfolded unevenly across the 20th century through a range of multilayered and contested transnational processes in which technology was deeply implicated, alongside as much as within the political arena.

More information: www.esf.org/inventingeurope

Modelling Intelligent Interaction -Logic in the Humanities, Social and Computational sciences (LogICCC)

Joint Activity with SCSS

One of the most crucial and striking features of humans and their societies is the phenomenon of intelligent interaction. Many disciplines from the humanities to the physical sciences hold separate pieces of the puzzle posed by this pervasive but also elusive phenomenon. The EUROCORES programme "LogICCC -Modelling Intelligent Interaction" aims at a deeper understanding of intelligent interaction by letting logic in its modern guise act as a catalyst and a "match maker" between these different disciplines. This will lead to a general framework for analyzing intelligent interaction - and the key notions which it naturally brings with it, namely, communication, cognition and computation.

To achieve this goal, researchers from a wide variety of disciplines have been invited to team up. Some of these researchers are logicians, others are not. But what all participants in LogICCC projects have in common is their interest in understanding interaction, pursued with the common language and models provided by logic in its modern, pluriform, and outward-looking guise. In this way, new ideas will flow symmetrically between many disciplines, enriching logic itself in the process.

In addition, the EUROCORES programme LogICCC is looking for a balance between fundamental theoretical advances and innovative applications of logical models in the thematic areas of interaction, communication, computation, and cognition.

More information: www.esf.org/logic

The Evolution of Cooperation and Trading (TECT)

Joint Activity with LESC and SCSS

A number of disciplines have adopted a common theoretical framework for explaining biological and cultural evolution that emphasises the properties of interacting, goal-directed agents, e.g. behavioural economics, evolutionary game theory in political science and economics, evolutionary approaches in cognitive, social psychology and neuroscience, replicator chemistry, population dynamic accounts of cultural evolution within anthropology, and the continued importance of evolution in our understanding of cooperative relationships between all kinds of organisms.

Methodological advances provide crucial new information about the properties of agents and their interactions. Examples include new tools from molecular genetics for inferring evolutionary relationships, new experimental work in economics, the development of neuroimaging methods, the continuing development of methods in cognitive science, and the renaissance of quantitative cross-cultural and comparative research.

The overall goal of TECT is to build a multidisciplinary research framework that encourages collaborative research into the evolution of cooperation and trading both within and between human, social, life and natural sciences.

More information: www.esf.org/tect

The Origin of Man, Language and Languages (OMLL)

Language may be considered as one of the defining characteristics of the human species. The development of linguistic and cognitive skills in the prehistoric past can be studied nowadays with reasonable expectations of success thanks to new perspectives which have been developed through the collaboration of several disciplines, including genetics, linguistics, evolutionary and palaeo-anthropology, archaeology, neurophysiology, cognitive sciences and artificial intelligence studies.

Comparative maps of genetic and linguistic human families suggest interesting correlations between the distribution of genetic diversities and of linguistic groups. How the development of linguistic skills can be linked to the evolution of the brain and of its cognitive strategies – both in phylogenetic and ontogenetic perspectives – can now be explored by empirical studies and modelling tools alike. The OMLL programme supports collaborative research in this area.

More information: www.esf.org/omll





Standing Committee for the Life, Earth and Environmental Sciences (LESC)

4-D Topography Evolution in Europe: Uplift, Subsidence and Sea Level Change (TOPO-EUROPE)

The topography of Europe is at the interface of processes taking place at depth in the Earth, at the surface and in the atmosphere. During the last 20 million years, plate tectonic and other geodynamic processes in the Earth's interior have caused many changes in the surface topography of Europe.

The TOPO-EUROPE programme is concerned with the geoscience of coupled deep Earth and surface processes and their effects on the evolution of the topography of continents and their margins. In addition to addressing world-class issues of Earth-System sciences, TOPO-EUROPE has considerable societal relevance. Indeed, topography affects society not only via landscape changes but also through its impact on geo-hazards and the environment. When sea-, lake- or ground water levels rise, or land subsides, flooding risks increase, directly affecting the sustainability of local ecosystems and human habitats. On the other hand, declining water levels and uplifting land may lead to higher risks of erosion and desertification. TOPO-EUROPE intends to investigate the4-D topography evolution of the European continent, its margins, and adjacent parts of North Africa, Asia and the Middle East.

This requires an interdisciplinary approach that integrates research in the subdisciplines of geomorphology, geochronology, geology, tectonics, geochemistry, petrology, geophysics, hydrology, geodesy, remote sensing and various branches of geotechnology.

This ESF EUROCORES initiative is a unique opportunity to establish a world-class programme based on Europe's strengths in integrated Solid-Earth sciences.

More information: www.esf.org/topoeurope

Challenges of Biodiversity Science (EuroDIVERSITY)

The aim of the EuroDIVERSITY programme is to support the emergence of an integrated biodiversity science based on an understanding of fundamental ecological and social processes that drive biodiversity changes and their impacts on ecosystem functioning and society. Ecological systems across the globe are being threatened or transformed at unprecedented rates from local to global scales due to the ever-increasing human domination of natural ecosystems. In particular, massive biodiversity changes are currently taking place, and this trend is expected to continue over the coming decades, driven by the increasing extension and globalisation of human affairs. The EuroDIVERSITY programme meets the research need triggered by the increasing human footprint worldwide with a focus on generalisations across particular systems and on the generation and validation of theory relevant to experimental and empirical data.

The programme was launched in April 2006 and includes ten international, multidisciplinary collaborative research projects, which contribute to this goal by initiating or strengthening major collabor-

ative research efforts. Some projects are dealing primarily with microbial diversity (COMIX, METHECO, MiCROSYSTEMS), others try to investigate the biogeochemistry in ecosystems (BEGIN, BioCycle), the landscape and community ecology of biodiversity changes (ASSEMBLE, AGRI-POPES, EcoTRADE), and others focus on the diversity in freshwater (BIOPOOL, MOLARCH).

In 2008, the EuroDIVERSITY programme integrates the different European research teams involved with various thematic workshops, a summer school, EuroDIVERSITY sessions in international conferences, as well as joint peer-review publications.

More information: www.esf.org/eurodiversity

European Collaboration for Implementation of Marine Research on Cores (EuroMARC)

Scientific marine drilling and coring from the sub-seafloor is crucial to progress in the Earth and environmental sciences because oceans regulate climate, cover the sites of fundamental geodynamic, geochemical and biological processes and preserve high-resolution records of the Earth history. Over the past 30 years, European researchers have played a leading role in international marine coring that has been central to most of the important advances in global dynamics science with far-reaching implications for the Earth and environmental sciences. They have contributed markedly to important scientific discoveries such as the operation of plate tectonics and the accretion of the oceanic lithosphere. Recent scientific advances in the field include the study of deep microbial communities, the discovery of frozen methane (gas hydrates) below the sea floor, the high-resolution evidence of past extreme and rapid climate variations, the establishment of new models for passive margin evolution, the understanding and quantification of oceanic biogeochemical cycling, and the discovery of large igneous provinces associated with continental break-up at volcanic margins.

EuroMARC aims at supporting all coring activities in marine areas and at enhancing the benefit from already established funding groups and research communities like, for example, the International Marine Global Change Study (IMAGES) and the European Consortium for Ocean Research Drilling (ECORD), which is a contributing member of the Integrated Ocean Drilling Programme (IODP). EuroMARC is an essential enabling tool to boost European leadership in the planning of international marine coring expeditions and the preparation of European proposals, hence ensuring the effective exploitation of research opportunities. Support of a properly resourced pre- and post-cruise science enabling programme will ensure that the nine participating countries will obtain the maximum benefit from marine coring investment, meet their mission requirements to maintain world-class environmental science communities, conduct excellent, innovative and societal-relevant science and maintain international science leadership.

More information: www.esf.org/euromarc

Climate Variability and the Carbon Cycle - Past, Present and Future (EuroCLIMATE)

The climate for the next century, and thereafter, is expected to be largely different from the present and the recent past. CO concentration is expected to reach levels unequalled over the past millions of years. Temperature is also rising rapidly. The last 150 years of meteorological observations and the reconstruction over the last millennium display a quite uniform climate. Only the reconstruction of paleoclimates extending much further back in time can help build a database with a broader climatic diversity. Such a database will, in addition, offer the possibility to test the reliability and robustness of the models used for future climate scenarios and thus to better understand how the climate system works. EuroCLIMATE focuses both on reconstructing past climates using different well-dated and calibrated proxy records and on modelling climate and climate variations for a better understanding of the underlying physical, chemical and biological processes involved.

More information: www.esf.org/euroclimate

Dynamic Nuclear Architecture and Chromatin Function (EuroDYNA)

One of the major challenges in biology is to understand how the genome orchestrates gene expression of the many thousand genes it encodes. To tackle this issue, the ESF together with national funding agencies from eight European countries have set the stage for 40 research groups to coordinate their efforts across Europe within the framework of the European Collaborative Research (EUROCORES) programme EuroDYNA.

EuroDYNA aims at advancing our knowledge of the control of gene expression in nuclear organisation. To do this the programme gathers and combines expertise in different fields such as dynamic chromatin structure and nuclear architecture, regulation of gene expression, RNA processing and transport as well as genome surveillance. Latest technologies in molecular biology and biochemistry are employed together with advanced microscopy, structural analysis and computational approaches in order to gain a deeper insight into how the nucleus operates. Detailed knowledge on the principles and mechanisms underlying the control of gene expression is vital for understanding the cause of many diseases and for developing rational procedures for genomic engineering, including gene therapy and stem cell engineering, and for many biotechnology applications.

There are nine Collaborative Research Projects (CRPs) under the umbrella of EuroDYNA which started their research in 2005. In addition to its multidisciplinary character, the programme offers a wide range of networking opportunities to the entire EuroDYNA community; providing training possibilities and establishing a platform to stimulate new research initiatives between scientists with related yet slightly different scientific interests, and to promote collaboration with other national and European initiatives.

More information: www.esf.org/eurodyna

Ecosystem Functioning and Biodiversity in the Deep Sea (EuroDEEP)

The deep sea is the largest environment on the planet, the least well known and one of the least studied. It contains extremely large, continuous habitats such as the millions of km² of abyssal plains and the 65,000 km long mid-oceanic ridge system. At the same time, it encloses relatively small (hundreds of km² to only a few m²), localised geological features such as canyons, seamounts, deep-water coral reefs, hydrothermal vents and fluid seepages on mud volcanoes,



pockmarks or faults, which support unique microbial and faunal communities. What little we know about deep-sea ecosystems supports the hypothesis that more species occur in the deep sea than anywhere else on Earth. As much as 90 per cent of species collected in a typical abyssal sediment sample are new to science.

The Programme was launched in June 2007 and includes four international, multidisciplinary collaborative research projects. It aims at the exploration and identification of the different deep-sea habitats, assessing both the abiotic and biotic processes that sustain and maintain deep-sea communities in order to interpret variations of biodiversity within and between deep-sea habitats and the interactions of the biota with the ecosystems in which they live. The resulting scientific data are a prerequisite for the sustainable use and the development of management and conservation options aiming at the sustainable use of marine resources that will benefit society as a whole.

EuroDEEP is a programme for deep-sea biology and ecology that strongly depends and requires collaboration between taxonomists, microbiologists, ecologists, physical and chemical oceanographers and geologists. In 2008, the Programme level activities includes Thematic Workshops, participation in international conferences, short-term visit grants for scientists, cross-EUROCORES activities, and further linkage to other major marine and biodiversity programmes at a European and international level.

More information: www.esf.org/eurodeep

European Mineral Sciences Initiative (EuroMinScI)

Joint Activity with PESC

The chemistry of the Earth's crust/mantle/ core depends on elements partitioning between minerals, and phenomena, such as super-plasticity or super-elasticity in minerals, could have a direct impact on large-scale geophysical and geochemical processes. Major advances in the use of physics-based experimental techniques and atomistic computer simulations now make it possible to better understand the relations between the structure of minerals and their physical properties. At the same time, in situ measurements of many minerals properties at extreme conditions of temperature and pressure corresponding to those existing in the Earth's interior are now feasible.

The EuroMinScI programme draws together different experimental techniques and computational activities into integrated collaborative research projects. Sometimes it calls for separate "computer experiments" while at other times computer simulation is needed even to interpret the experimental data uniquely. It also addresses the need for young researchers with an academic background in Earth sciences to be trained more in the physics-based techniques, where the methods are very different from traditional geosciences.

More information: www.esf.org/eurominsci

Processes in the Passive Continental Margins (EUROMARGINS)

The nations of Europe share one of the world's longest passive margin systems and one of the most distinctive morphological features of the world's ocean basins. A remaining frontier for natural resources, passive margins mark the complex transition between continental and oceanic crust, with large sedimentary accumulations. In addition, passive continental margins, associated with unstable slopes, represent a major source of natural hazards, especially to the coastal communities of Europe.

The EUROMARGINS programme provides the international framework for promoting innovative, interdisciplinary work for the imaging, monitoring, reconstruction and modelling of the physical, chemical, and biological processes in the European passive continental margins. It encourages the development of new technologies and conceptual models aiming at the advancement of integrated research into the mechanisms responsible for continental break-up and the world ocean margin formation. The pooling of human resources, training of a new generation of interdisciplinary geoscientists, and optimal sharing of observational platforms or analytical and modelling facilities are considered important value-added ingredients of the EUROMARGINS programme.

More information: www.esf.org/euromargins

Quality Control of Gene Expression – RNA Surveillance (RNAQuality)

Cells have developed multiple systems of quality control to ensure that they operate accurately. This also applies to the biogenesis and metabolism of various classes of RNAs, which only recently have been shown to be subjected to stringent surveillance mechanisms. Such systems target erroneous RNA molecules for degradation before irreversible cellular damage can occur. In particular, the presence of abnormally matured mRNA molecules might be detrimental to cells given their central role in protein synthesis. Surveillance mechanisms not only monitor RNA biogenesis in order to safeguard cells but are also implicated in the post-transcriptional regulation of wild-type transcripts and the elimination of accidentally damaged molecules. Posttranscriptional processes such as mRNA processing, export, localisation, silencing and turnover are interlinked by the use of common factors, which provide opportunities for quality control checkpoints. RNA quality control systems also modulate the clinical manifestations of many genetic disorders and hence represent promising targets for future therapeutic intervention.

Unravelling the molecular mechanisms underlying the growing number of discovered RNA quality control pathways and understanding how these systems are interconnected will be a major challenge. To address this, the ESF has launched the EUROCORES programme RNAQuality. The programme will focus on basic mech-

anisms of RNA quality control that operate at different levels of RNA biogenesis. Multidisciplinary approaches, ranging from molecular and cellular biology to structural analysis and high-throughput and computational approaches will be employed in diverse model systems.

In addition to its research component, the programme offers a wide range of networking possibilities, providing training opportunities and establishing a platform for European researchers.

More information: www.esf.org/rnaquality

Science of Protein Production for Functional and Structural Analysis (EuroSCOPE)

Joint Activity with EMRC

see p.96

The Evolution of Cooperation and Trading (TECT)

Joint Activity with SCH and SCSS

see p.100


Standing Committee for the Physical and Engineering Sciences (PESC)

Cold Quantum Matter (EuroQUAM)

Quantum Matter is a matter in which all the constituent atoms and molecules are in a single quantum state and behave coherently as a single quantum object. It typically exists at temperatures less than one millionth of a degree above absolute zero. In the long term, quantum matter is expected to have applications in diverse areas ranging from high-precision measurement to quantum information. The field of quantum matter is a complex one that draws on atomic and optical physics, chemical physics and physical chemistry, plasma physics, statistical physics, solidstate physics and quantum chemistry.

Although the field is driven by fast advances in experimental capabilities, theoretical work is essential to guide experiments and explain their results. The EuroQUAM programme will provide vital opportunities for scientists from different disciplines and countries to collaborate, and in particular will stimulate collaborations between experiment and theory. Such collaboration is essential if Europe is to further strengthen its present status as a major contributor to the field. Major advances are expected as a result of the research being conducted within EuroQUAM. The focus of the programme spans four themes of research: atomic quantum gases with controllable interactions; formation of molecules in ultracold atomic gases; cooling molecules; and ultracold plasmas and Rydberg gases. The call for proposals was launched at the end of March 2006 attracting 24 Outline Proposals. After the two stages of Outline

and Full Proposal selection and ranking followed by the funding decisions of the participating organisations 6 projects received funding. The first scientific committee meeting for the programme was held on 9 July 2007. This event brought together not only the members of the Scientific Committee but also many of the principal investigators from various consortia. The network has established a dynamic and strong arena in Europe for researchers in the area of ultra cold guantum matter. Links have been made with a similar network in Canada and other opportunities for international collaborations are emerging.

A major programme-wide conference was held in Barcelona in April 2008. It brought together the EuroQUAM community and internationally leading scientists from the US, Canada and Australia. EuroQUAM also had a very successful invited session at ESOF 2008 in Barcelona. A summer school at Oxford University and several other smaller networking and dissemination activities are planned for 2008.

More information: www.esf.org/euroquam



ESF's principal activities

European Mineral Sciences Initiative (EuroMinScI)

Joint Activity with LESC

see page 106

Friction and Adhesion in Nanomechanical Systems (FANAS)

Everyday operations on a broad range of scales, from nanometer and up, depend upon the smooth and satisfactory functioning of countless tribological systems. Friction is intimately related to both adhesion and wear, and all three require an understanding of highly non-equilibrium processes occurring at the molecular level to determine what happens at the macroscopic level.

The fast development, over last decades, of micro- and nano-mechanics brought up the need for a more basic understanding of the origins and behavior of friction. Standard lubrication techniques used for large objects are expected to be less effective or even not applicable in the nano-world. Novel methods for control of friction and manipulation of nanoscale objects are therefore needed. A better understanding of triboprocesses has also a major impact for the protection of the environment (reduction of lubricant and energy consumption).

The aim of EUROCORES programme FANAS is to get a better insight on the origins of friction and adhesion and to learn how to control them. In particular: understanding the relationship between adhesion and friction at the nano- and microscales and the mechanisms of energy dissipation in tribological systems, bridging the gap between the nano, micro and macro scales in friction, lubrication and adhesion, control and modification of frictional properties, nanomanipulations at interfaces, studies of biomimetic tribological systems and tribochemistry.

The Call for Proposals was launched in March 2007 and the launch of this programme is expected in 2008.

More information: www.esf.org/fanas

Fundamentals of Nanoelectronics (FoNE)

The scientific goal of the Fundamentals of NanoElectronics (FoNE) Programme is the development of new concepts necessary to master the operation of nano-scale devices. To realise the potential of nano-scale electronics it is necessary to understand guantum phenomena in semiconductors wires and dots, and control size, interface and proximity effects in a wide variety of hybrid nanostructures. FoNE is a four year programme which recognises that understanding the above phenomena is crucial to the development of nanoscale electronics and, thus, advances European research by concentrating and networking the activities of world-leading research groups.

The research in FoNE addresses many areas of nanoelectronics and will create the necessary knowledge for a society in which microelectronics is gradually replaced by nanoelectronics.

FoNE focuses on: nano-spintronics and hybrid devices with integrated superconduction, semiconducting and magnetic functionalities; electron-dependent transport in single-molecules and carbon nanotubes (CNTs); quantum transport, noise and related phenomena in quantum dots, wires and other novel structures.

More information: www.esf.org/fone

Quantum Standards and Metrology (EuroQUASAR)

Precision measurements are at the heart of testing our physical models, they provide a strong motivation in physics and applied sciences for developing new methods and have an important place in our modern technology based society, where techniques such as GPS guide many of our day-to-day activities. The foundation for a new area of precision was laid by the latest Nobel-prize awarded achievements such as laser cooling, Bose-Einstein Condensation and precision metrology (optical comb generators). European scientists have had a significant share of contributions in realising these achievements.

EuroQUASAR will build on European expertise to develop a new generation of quantum standards with unprecedented performance. The programme will form a cohesive platform for utilising the latest developments such as quantum metrology and novel techniques of quantum engineering. EuroQUASAR will help paving the way for the achievement of future optical clocks and inertial sensors of record precision as well as novel fundamental tests based on atomic and molecular quantum systems with well defined, unique and perpetual features.

The call for outline proposals was launched in March 2007. The ranking meeting was held in December 2007 in which 4 proposal were recommended for funding. The programme's first scientific committee meeting was held on 25 July 2008 where the members of the three funded collaborative research projects came together to discuss their projects and plan their future networking activities.

More information: www.esf.org/euroquasar

Self-Organised NanoStructures (SONS) II (2005 Call)

Self-organisation, or self-assembly, is a process in which a supramolecular organisation is established in a complex system of interlocking components. The mechanism that produces the organisation is determined by the competing interactions between the components. The hierarchy of interactions determines the hierarchy of levels in the final nanostructured material.

Thus self-organising compounds allow a defined and well-controlled construction of ordered architectures on a nanometer-scale.

The SONS programme concerns the utilisation of supramolecular interactions for the synthesis and positioning of functional assemblies, macromolecules, dendrimers, liquid crystals, tailor-made polymers and inorganic nanoparticles.

Molecular self-assembled architectures may find applications in advanced technologies such as new chip technologies (DNA probes, lab-on-the-chip), sensors transistors, data storage, light-emitting diodes, communication technologies, magnetic information storage, photovoltaic cells, and molecular motors and machines. The second call for Proposals of SONS was launched in May 2005, and seven Collaborative Research Projects (CRPs) were selected for funding bringing together 51 research groups from 15 countries.

More information: www.esf.org/sons2

ESF's principal activities

Smart Structural Systems Technologies (S3T)

Major incidents due to failures in engineering infrastructure, modern transportation or other spheres of human activity are becoming less acceptable; zero-risk protection of citizens is now a long-term aspiration of governments. Whether it is civil infrastructure, an industrial plant, or a fleet of trains or aircraft, operators and engineers are under pressure to make every possible effort to assure public safety, including the procurement of new technology, while at the same achieving substantial increases of operational efficiency and cost reduction. Consequently, there is less focus on the design of new structures and more on the long-term goal of extending



indefinitely, through minimum intervention, the safe and economical operational lifetime of individual structural components and entire systems. A "smart structure" is a system that has the ability to learn about its environment, process the information in real time, reduce uncertainty, and generate and execute control actions in a safe and reliable manner to accomplish the desired objective. The EUROCORES S3T programme seeks to lay down theoretical and experimental bases for the integration of state-of-the-art sensors into systems to monitor and control major structures. Seven projects were launched within the S3T programme with the programme's first scientific committee meeting held in September 2006; these collaborative projects bring together 45 teams from nine countries. The topics deal with diverse areas of smart structures such as: material algorithms, finite element methods and experiments; smart sensing in structural health monitoring; aircraft morphing; shape memory alloys in civil engineering; measurement and monitoring of ageing underground infrastructures using micro electro mechanical systems; vibration control in civil engineering; and, shape control of membrane reflectors.

Several networking, dissemination and training activities have been organised by the S3T community. From the start, S3T has maintained a close collaborative link with the NSF through which joint activities have been organised. These collaborations have continuously grown and paved the way for the achievement of scientific synergies as well as the emergence of new opportunities. The latter has facilitated in-depth analysis and discussions among the NSF, the ESF and its Member Organisations for the creation of a new collaborative research programme on Biologically Inspired Engineering with focus on Sensors and Actuators. S3T is also extending its reach to make accessible to its community the relevant engineering challenges being dealt with within the area of renewable/sustainable sources of energy. To this end, a joint workshop is being organised by the ESF and the NSF to be held in November 2008. Both the big picture and the state-of-the-art in research and engineering will be discussed by a sample of the active players from both Europe and the US. An advanced course on Morphing Aircraft is being organised for

November 2008 at the Instituto Superior Técnico Centro de Congressos, in Lisbon, Portugal. This training opportunity has valuable contributions from prominent researchers and research institutes in Europe and the US.

More information: www.esf.org/s3t

Standing Committee for the Social Sciences (SCSS)

Cross-national and Multi-level Analysis of Human Values, Institutions and Behaviour (HumVIB)

The EUROCORES programme HumVIB seeks to systematically analyse data available from the European Social Survey (ESS) and other cross-national survey data in an innovative and comparative way on a European scale. It is the overarching objective to realise the concept of Europe as a natural laboratory for the social sciences in which the diversity of institutions, practices, histories, and resources enable researchers to analyse how human values, attitudes and behaviour are affected by the characteristics of the multi-level systems or contexts in which they occur.

The HumVIB EUROCORES programme is designed to combine the unprecedented individual-level data resources now available in Europe and typified by ESS, the comprehensive system-level and contextual data, appropriate new methods of multi-level analysis as well as the testing of carefully elaborated theories of the effects of institutions and structures or, more generally, contextual factors on individual attitudes and behaviour.

The project selection phase of the HumVIB Programme came to an end in late 2007. Collaborative Research Projects are expected to be launched in 2008.

More information: www.esf.org/humvib

European Collaborative Research Projects - ECRP I – III:

The ECRP Programme is designed to advance high-quality responsive mode, researcher-led, collaborative international research within and across all fields of the social sciences, offering opportunities to test innovative ideas, pool multidisciplinary expertise and strengthen European research capacity.

In 2008, funding organisations of 18 countries are participating in the scheme. Proposals are being evaluated at the European level within a common peer review process, with common criteria and procedures, after which funding decisions will be taken at the national level by the organisations concerned. The process is coordinated by ESF. The ESF web pages include a set of Frequently Asked Questions and related documentation on this EUROCORES Programme. In addition, lists of the Collaborative Research Projects awarded in the 2005, 2006 and 2007 (ECRP I, II, III) competitions are available on the web.

More information: www.esf.org/ecrp

Modelling Intelligent Interaction -Logic in the Humanities, Social and Computational Sciences (LogICCC)

Joint Activity with SCH (p.99)

The Evolution of Cooperation and Trading (TECT)

Joint activity with SCH and LESC (p.100)



EU Framework Programme Projects

In this section, ESF's involvment in ERA-NET and other coordination actions will be highlighted. ERA-NET is a scheme of the European Commission to promote the coordination and cooperation of national and regional programmes in order to overcome the traditional fragmentation of research efforts in the European Union (EU).

It was introduced in the Sixth Framework programme for Research and Technological Development (FP6). The scheme is also open to consortia for coordinating national programmes in researcher-led science. The ERA-NET Scheme operates via an Open Call, welcoming proposals for coordination actions in any field of science and technology IN a bottom-up approach.

The Commission pays the additional costs for funding agencies related to the coordination. Many of the ESF's Member Organisations are active in ERA-NETs covering different topics and specific domains. In FP7, the ERA-NET instrument is proposed to be expanded to include funding contributions to cooperative research.

BiodivERsA

BiodivERsA is an ERA-NET (European Research Area) involving 19 major research funding agencies from 15 countries in Europe with research funding in the field of terrestrial, freshwater and marine biodiversity.

Most ERA-NET members are represented in other fora which discuss and recommend requirements for European biodiversity research: including the Convention for Biological Diversity (CBD-SBSTTA), Diversitas, the European Platform for Biodiversity Research Strategy (EPBRS) and the European Science Foundation (ESF). Recommendations from these fora are often made without a formal mechanism to ensure connection with the strategies, priorities and budgets of national research funding agencies.

The aim of BiodivERsA is to contribute to setting up such a mechanism, and its objective for the period 2004-2009 is to achieve an efficient trans-national research co-operation in the field of biodiversity research funding. With the aim of contributing to the implementation of the EU Biodiversity Strategy, BiodivERsA will allow the funding agencies to collate existing activities, compare future strategies and recommendations of consultative bodies,



ESF's principal activities

and systematically explore opportunities for future collaboration. BiodivERsA seeks best practice as a basis for cooperation in order to strengthen European biodiversity research and will also contribute to better coherence and increased synergies between the national programmes of cooperation with developing countries in the field of biodiversity research funding.

More information: www.eurobiodiversa.org

Coordination Action for innovation in Life-Cycle Analysis for Sustainability (CALCAS)

CALCAS (2006-2009) aims to advance the development of Life-Cycle Analysis (LCA) approaches in order to increase the efficiency of sustainability decision making. LCA is the standardized method for compilation and evaluation of inputs, outputs and the potential environmental impact of a product system through its life cycle.

The ultimate aim is to develop standard methodologies for the sustainability assessment of a large variety of products and activities. The current CALCAS goals are to define the main strategies to deepen and broaden the LCA domain, and to define the main gaps of knowledge and to identify the critical points.

ESF contributes to the development of the CALCAS-related strategy, especially by liaising with the national research organisations, and possible with other national or international agencies, in order to develop a common framework of cooperation in the domain of life-cycle analysis and sustainability assessment.

More information: www.calcasproject.net

Coordination Action for Research Activities on life in Extreme Environments (CAREX)

The CAREX project (Coordination Action for Research Activities on life in Extreme Environments) is a Coordination Action funded by the European Commission under the seventh Framework Programme. CAREX builds up on the European Science Foundation Investigating Life in Extreme Environments initiative (2004-2006) see page 51 and adopts an interdisciplinary approach to the subject, covering microbial life, life strategies of plants and life strategies of animal on various extreme environments ranging from deep sea to polar regions and even outer space bodies.

The two main objectives of the proposed CAREX project are i) to strengthen the structure of the community involved in life in extreme environments research in Europe by catalysing networking, interactions and exchange of best practices among it and, ii) to further the knowledge of life in extreme environment by developing a strategic research agenda for Europe in this field. This project lasts three years (2008-2010) and encompasses, among other things, three large scale interdisciplinary workshops and the implementation of a webbased communication platform.

More information: www.carex-eu.org

European Fleet for Airborne Research (EUFAR)

EUFAR is an Integrated Infrastructure Initiative of the 6th Framework Programme of the European Commission. EUFAR brings together 24 leading European institutions and companies involved in airborne research, operating 24 instrumented aircrafts.

ESF is involved in EUFAR through the ESF-Scientific Advisory Committee (N1ESF-SAC), which is constituted of independent eminent scientists. N1ESF-SAC supervises the activities of EUFAR I3. A scientific survey has been carried out concerning the European researchers' visions of future airborne research and future facility needs, by inviting high-profile scientists in the research community of Environmental and Geo-sciences to express their opinion in an online poll. Over 200 scientists voted and the results indicate that most of them are in favour of a European medium-altitude/ heavy-payload/long-endurance research aircraft, for atmosphere/low-troposphere campaigns (in multi-disciplinary/multinational settings): a turboprop aircraft (Lockheed C130, Airbus A400M). Based on the poll results, an ESF Forum will be organised with the Member Organisations in order to agree on a system for transnational access to the existing aircraft fleet in Europe.

EUFAR aims at:

- Coordinating the network for exchanging knowledge, sharing developments, and building the unified structure that is required for improving access to the infrastructures
- Providing users with Transnational Access (TA) to the infrastructures
- Extending TA to national funding sources
- Promoting airborne research in the academic community
- Developing research activities in airborne instrumentation

More information: www.eufar.net/



ESF's principal activities

European Polar Consortium (EUROPOLAR ERA-NET)

EUROPOLAR ERA-NET (The European Polar Consortium) is composed of 25 ministries, funding agencies and national Polar RTD authorities from 19 European countries (including the Russian Federation and Greenland Home Rule Government) with the overall aim of strengthening and deepening European nations' strategic cooperation in the Polar Regions and ensuring a strong driver for developing joint Europe programmes and contributions to environmental policy development in the European Union.

EUROPOLAR ERA-NET has been directly encouraging and supporting the closer relationship of national polar RTD programme managers between Europe and the Russian Federation, fostering cooperation and leading to joint programme activities.

It is the first time that Russian and European Union countries have cooperated so closely on the strategic aspects of Polar Research programmes leading to the development of a European Polar Consortium liaison office in St Petersburg within the Arctic and Antarctic Institute of the Roshydromet Agency. The strategic vision and long-term goal of the European Polar Consortium is the development of a "European Polar Entity" which will be established through a dialogue at a political level.

During the next 12-18 months the European Polar Consortium will seek agreement to put forward strategic recommendations from the funding agencies and ministries of EUROPOLAR on the development of cooperative research programmes areas of Frontier Polar Science including the fields of astronomy and astrophysics, polar genomics and life in extreme environments.

ESF-EPB Unit is responsible for the strategic direction/management of the project.

More information: www.europolar.org

European Polar Research Icebreaker Consortium (ERICONAB)

The ERICON-AB project, involving 10 countries, will generate the strategic, legal, financial and organisational frameworks required from National Governments and the European Commission to commit financial resources to the construction and running of the European Polar Research Icebreaker AURORA BOREALIS. Scientific management frameworks will be assessed including mechanisms to handle dedicated large-scale multi-year or special mission specific research programmes. The strategic integration of the facility into the fabric of the European Research Area shall be achieved by connecting the national research priorities and the demand of ship time of the stakeholder countries with a European level facility. The relevance of the facility in promoting science and technology cooperation with EU strategic partner countries such as the Russian Federation will be specifically analyzed.

Deliverables will focus on moving the project from the preparatory phase to the construction phase by addressing key barriers especially in relation to engineering initial financial models that allow the participation of both EU member states and non-EU partner countries. Consortium beneficiaries and legal experts will develop the environment for frameworks for joint ownership and operation of a multi-country research facility. A dedicated legal implementation structure for managing and operating the AURORA BOREALIS will be proposed and its connection with other existing research assets such as Polar Stations, air support and supporting satellite assets will be analyzed. The final deliverables of this project will be concerned with reaching a decision point and agreement with nations ready to move forward with the construction phase. It is anticipated that a series of natural decision points for agencies/governments to pass on their individual degree of integration into the project will be programmed in to the ERICON - AB Stakeholder councils meetings.

Humanities in the European Research Area (HERA)

HERA is an ERA-NET project involving 16 national funding agencies for the Humanities and the ESF. The overall objectives of HERA are to stimulate trans-national research cooperation in the Humanities and to overcome fragmentation of research in the Humanities in Europe. Through advancing new and innovative collaborative research agendas HERA will enable the Humanities to play an appropriate and dynamic role in the ERA and within EU Framework programmes.

It also aims at improving cooperation between a large number of research funding agencies in Europe as well as establishing best practices in science management in the Humanities and set up joint research programmes.

ESF will organise on 8-10 October 2008 the 4th HERA conference which will fea-

ture highlights for the first time from all five major public supra-national research funders in the Humanities: FP7, ERC, ESF, COST and HERA.

More information: www.esf.org/hera or www.heranet.info

European Concerted Action to Foster Prevention and Best Response to Accidental Marine Pollution (AMPERA)

AMPERA, an ERA-NET project which is coordinated by the Spanish Ministry of Education and Science, aims to provide a platform on accidental marine pollution research. Within the AMPERA consortium which consists of 10 organisations from 8 European countries, the Marine Board is responsible for establishing coordination with other European Research Area activities; in that frame, the Marine Board has launched a series of fora adressing marine and environmental ERA-NETs (3rd forum in 2007 -see also p 146). Marine pollution, in general, and accidental marine pollution, in particular, are issues of major concern for health of the marine environment and their socio-economic uses. Driven by economic, ecological and security considerations, there is an increasing pressure upon the need for new or improved prevention mechanisms and emergency response systems to better protect the world's marine ecosystems. Therefore decisions based on sound scientific principles are indispensable for the effective prevention of accidents and efficient formulation of contingency plans.

More information: www.ampera-net.info

ESF's principal activities

MarinERA

MarinERA is an ERA-NET project jointly coordinated by Ifremer (Institut Français de Recherche pour l'Exploitation de la Mer) and the Marine Board (the Marine Board Executive Secretary being Deputy Co-ordinator). It aims to facilitate the coordination of national and regional marine RTD programmes in Europe.

MarinERA is a partnership of the leading marine RTD funding organisations from 13 European States. A range of Observers, including international research organisations and FP6 consortia are associated with MarinERA. The MarinERA process provides an operational and strategic platform, enabling marine sciences to move towards practical research management approaches (including reciprocal opening of national marine RTD programmes, joint calls and trans-national marine programmes).

Through this cohesive and active network, MarinERA partners work to progress towards developing and securing the marine component within the European Research Area (ERA). A common call for research proposals to address "Regional Drivers of Ecosystem Change: Description, Modeling and Prediction", involving funding from six European marine research organisations, is to be launched in February 2008 with a provisional funding envelop of approximately € 5M.

More information: www.marinera.net

Towards a European Strategy for Synthetic Biology (TESSY)

Towards a European Strategy for Synthetic Biology (TESSY) is a Specific Support Action (SSA) supported by the EC (contract number: 043449). Synthetic biology is an emerging field that aims to (re)design and manufacture biologically based devices and systems employing engineering principles. Synthetic Biology has a high potential for research and development, and future applications beneficial for economy and society.

TESSY aims at setting up an expert based, investigative and participative process for the further development of Synthetic Biology in Europe.

More information: www.tessy-europe.eu







ESF's Science Structure

The motor of ESF's science activities are its five Scientific Standing Committees: European Medical Research Councils (EMRC); Humanities (SCH); Life, Earth and Environmental Sciences (LESC); Physical and Engineering Sciences (PESC); Social Sciences (SCSS) and five Expert Boards and Committees (Marine Board–ESF), European Polar Board (EPB), European Space Sciences Committee (ESSC), Committee on Radio Astronomy Frequencies (CRAF), Nuclear Physics European Collaboration Committee (NuPECC) and the overarching Science Advisory Board. These bodies, composed of high-ranking scientists nominated by the ESF's Member Organisations, deal with strategic science questions for their domains and are responsible for the selections of proposals.

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. Overall quality assurance of ESF's operation, advice on new strategic scientific direction and interdisciplinarity is provided by the Science Advisory Board.



ESF's Science Structure

Standing Committees

Standing Committee for the European Medical Research Councils (EMRC)

Globalisation has brought rapid changes to our society – changes such as emerging and rapidly spreading infectious diseases, changed disease patterns with treatmentresistant tuberculosis, rapid and dramatic climate changes and, in Europe, a changed demography with an ageing population. Medical research is essential to cope with these challenges. Furthermore, new knowledge in the field of medical science is important to facilitate greater success for the European healthcare industry.

The European Medical Research Councils' 2007 White Paper 'Present Status and Future Strategy for Medical Research in Europe' aims to strengthen and improve European medical research, which in turn will result in better healthcare and improved human welfare. The White Paper was developed during two round-table meetings in Paris on 28 May and 20 July 2007 hosted by the EMRC and from a fruitful discussion with Dr. Elias Zerhouni and his staff at the US National Institutes of Health in September 2007. The White Paper was endorsed by all members of the EMRC at the EMRC Plenary Meeting in October 2007 and launched on 6 December 2007 by Professor Liselotte Højgaard, Chair of EMRC and Janez Potočnik, Commissioner for Science and Research.

The EMRC recommendations for strengthening medical research in Europe are the following:

- Implementation of "best practice" for funding and performing medical research.
- Collaboration via EMRC and its Membership Organisations and EC, ERC, COST, the scientific societies, the medical journals and the university and academic



medical centres should be enhanced as well as sharing of research and results.

- Revision of EC Directives related to medical research to facilitate research.
- Endorsement of the EMRC statement on equal opportunities for performing research: "The EMRC advocates equal opportunities in all aspects of medical research – regardless of age, gender, geography origin, profession, race, religion, or sexual orientation."
- A doubling of public funding of medical research in Europe within the next 10 years – to a minimum level of 0.25 % of GDP and the necessity for sustaining a steady growth above inflation in the years to come after the doubling.

The European Medical Research Councils (EMRC) is the membership organisation for all the Medical Research Councils in Europe under the ESF. The mission of the EMRC is to promote innovative medical research and its clinical application towards improved human health. The EMRC offers authoritative strategic advice for policy making, research management, ethics, and better health services. In its activities, the EMRC serves as a voice of its Member Organisations and the European scientific community through its science policy. The EMRC has an important role in the future development of medical research in Europe and it invites the European Commission, the European Research Council, learned societies, universities and academic medical centres for debate and action to bring its recommendations to fruition.

More information: www.esf.org/emrc



ESF's Science Structure (EMRC)

Chair:

 Professor Liselotte Højgaard Rigshospitalet, University of Copenhagen, Copenhagen, Denmark

Members:

- Professor Vladimir Bencko
 Institute of Hygiene & Epidemiology,
 Prague, Czech Republic
- Professor Håkan Billig*
 Swedish Research Council, Stockholm, Sweden
- Dr. Anne Bisagni*
 Institut National de la Santé et de la Recherche Médicale, Paris, France
- Professor Jacques Boniver
 Université de Liège,
 Liège, Belgium
- Professor Roger Bouillon*
 Lab. of Exp. Medicine Endocrinology, Leuven, Belgium
- Professor Arturo Brunetti* Universita deglie Studi di Napoli, Napoli Italy
- Professor Andis Nicolaides University of Cyprus
- Professor Anna Członkowska Institute of Psychiatry and Neurology, Warsaw, Poland
- Professor Wolfgang Fleischhacker Clinical University, Innsbruck, Austria
- Dr. Jona Freysdottir
 University Research Hospital, Reykjavik, Iceland

- Professor Albert Gjedde
 Aarhus Universitetshospital,
 Aarhus, Denmark
- Professor Agnès Gruart* Universidad Pablo de Olavide, Sevilla, Spain
- Professor Zita Ausrele Kučinskiené University of Vilnius, Lab. of Medicine, Vilnius, Lithuania
- Professor Hans Lassmann Brain Research Institute, Vienna, Austria
- Dr. Mark Palmer*
 Medical Research Council, London, United Kingdom
- Professor Kresimir Pavelic
 "Rudjer Boskovic" Institute, Zagreb, Croatia
- Professor Bogdan Petrunov
 National Center of Infectious and Parasitic Diseases,
 Bulgaria
- Professor Bob Pinedo
 VUMC Cancer Center,
 Amsterdam, Netherlands
- Dr. Katarina Poláková
 Cancer Research Institute,
 Bratislava, Slovakia
- Professor Laurentiu Mircea Popescu
 "Carol Davila" University of Medicine and Pharmacy,
 Bucharest, Romania
- Professor Charles Pull
 Centre Hospitalier du Luxembourg, Luxembourg

- Pending, Hungary
- Professor Joaquim Alexandre Ribeiro Institute of Pharmacology and Neurosciences, Lisbon, Portugal
- Professor Martin Röllinghoff* Nuremberg University, Nuremberg, Germany
- Professor Daniel Scheidegger
 Basel University,
 Basel, Switzerland
- Professor Janez Sketelj
 University Institute of Clinical
 Neurophysiology,
 Ljubljana, Slovenia
- Professor Gunnar Bovin
 Norwegian University of Science and Technology,
 Trondheim, Norway
- Dr. Sardan Nadire Yesim Cetinkaya TÜBITAK, Istanbul, Turkey
- Professor Kalervo Väänänen Institute of Biomedicine, Turku, Finland
- Professor Isabel Varela-Nieto
 Instituto Investigaciones Biomedicas
 "Alberto Sols", Madrid, Spain
- Professor Eero Vasar* Tartu University, Tartu, Estonia
- Professor Michel Van der Rest CNRS, Paris, France
- Professor Chysanthos Zamboulis
 Hippokration General Hospital,
 Thessaloniki, Athens, Greece

The representative from Ireland is in the process of being nominated.

* The delegate is also a Core Group member

Observers:

- ESF Standing Committee for Life, Earth and Environmental Sciences (LESC) pending
- Nederlandse organisatie voor wetenschappelijk onderzoek (NWO Dr. Edvard Beem
- Fogarty International Center, National Institutes of Health, Maryland, United States
 Dr. Roger Glass
- The Israel Academy of Sciences and Humanities, Israel
 Professor Arnon Nagler
- Health Research Council of New Zealand, New Zealand
 Dr. Robin Olds
- World Health Organisation pending

ESF's Science Structure (SCH)

Standing Committee for the Humanities (SCH)

As explained in the "SCH position paper", Humanities explore the origins and products of the human capacity for creativity and communication. SCH encompasses a broad spectrum of disciplines all pertaining to human consciousness, perception and interpretation of the world such as anthropology, archaeology, area studies, gender studies, history, linguistics, literature, media studies, philosophy, psychology, musicology, religion and theology. With its first young scholars' forum, "Humanities Spring", SCH made a determined effort to provide a space to young voices in Humanities research to articulate their vision for the future of the field in the resulting "Humanities Manifesto".

Besides utilising ESF's instruments categorised under the ESF's Strategic Plan to achieve its goals SCH is also involved in the European Commission-backed ERA-NET project "Humanities in the European Research Area" (HERA) (ERAC-CT-2005-016179). The SCH is responsible for Work Package 9, the development and launching of two Joint Research programmes (on "cultural dynamics" and on "creativity").

In an effort to provide a tool for researchers and institutions alike to easily access and assess Humanities research output, irrespective of disciplinary and linguistic boundaries, ESF has launched the European Reference Index for the Humanities (ERIH).

More information: www.esf.org/erih



Some other highlights:

- In 2007 an initiative aiming at increased ESF-COST synergy was launched in the field of landscape studies, archaeology, environmental history and related fields, bringing together scholars from ESF activities and COST Actions. The purpose of this initiative is the establishment of a multidisciplinary platform; the creation of such a platform responds to opportunities and needs, both at the policy level and at the scientific level. The initiative is structured through four thematic workshops (Landscapes: perceptions and perspectives, Exploring new territories in landscape studies, Patterns of landscape management, future perspectives Imagining for landscapes), which will each bring together ESF and COST networks, as well as other European and extra-European networks of researchers. The synergy initiative will culminate in a concluding synthesis workshop, which will discuss the transversal themes, and result in a joint ESF-COST science policy briefing, identifying coordination and collaboration potentials and needs in terms of existing national and international research activities, as well as areas for addressing new science needs for evidence-based decision-making in the implementation of the European Landscape Convention.
- SCH has also, in collaboration with the ESF European Space Sciences Committee (ESSC), organised the first European comprehensive transdisciplinary dialogue on humans in outer space on 11-12 October 2007 in Vienna, in cooperation with the European Space Agency and the European Space Policy Institute. This dialogue goes further than regarding humans only as tools

for exploration or the better robots. It investigates the human guest for odyssevs beyond the atmosphere and reflects on the possibilities to find extraterrestrial life. The conference resulted in the Vienna Vision on Humans in Outer Space, which is currently being finalised. This vision provides a unique European perspective in identifying the relevant needs and interests. It concerns three 'odysseys': i) humans in the orbit around the Earth, ii) humans returning to Moon and on to Mars, iii) humans migrating from the Earth. The Vienna Vision will be presented to various European and international fora, in order to become a useful element for the position finding and decision making process.

The first ESF Humanities Spring 2007 took place in Lisbon, from 24-26 May 2007. By launching this event, SCH wished to mobilise the creative potential of the next generation of leading Humanities scholars. A group of 21 young scholars had been selected through an open call for proposals, and were invited to debate possible and/or desired futures for Humanities research in Europe. Challenges and opportunities Humanities scholarship is facing in the globalised context of research were also addressed. The discussions were led by six senior scholars from different fields of the Humanities. The conference resulted in a manifesto for the Humanities in Europe, identifying, among others some major topics that illustrate the potential of humanities research. This list includes issues such as Europe's Islamic past and its future, the North/South divide, the consequences and development of new media and technologies, as well

ESF's Science Structure (SCH)

as constant change and complexity of cultures, politics, education and social structures. It further identifies the conditions for success, requiring, among others, an interdisciplinary dialogue between disciplines and cooperation with the natural, technological and social sciences as critical and equal partners. A follow-up is planned to take place in 2009, bringing the event to a next level, by extending it to participants from outside Europe.

Scientific publications

The SCH Research Networking Programme Cultural Exchange in Europe 1400 – 1700 ran from 1999 to 2004. This summer, Cambridge University Press published the results of the programme in a four volume series, examining the domains of religion, the city, communication and information, seeking to uncover the deep but hidden unities shaping a common European past. The series is edited by Professor Robert Muchembled (Université de Paris XIII) and associate editor William Monter (Northwestern University, Illinois). Cultural Exchange in Early Modern Europe, Cambridge University Press, 4 volumes.

SCH is also strengthening its working relationship with the Academies, with the European Institutes for Advanced Study, and with the associations of higher education and research institutions in Europe, such as EUA and LERU.

SCH consists of representatives from research councils, research performing organisations and academies, with subject specialists to complement ordinary membership. Observers attend from the COST Domain Committee Individuals, Societies, Cultures and Health (ISCH), the European Commission, the U.S. National Endowment for the Humanities, the Canadian Social Sciences and Humanities Research Council and the Israel Academy of Sciences and Humanities.

More information: www.esf.org/human



Chair:

 Professor Gretty Mirdal University of Copenhagen, Institute of Clinical Psychology, Copenhagen, Denmark

Members:

- Professor Luís Adão de Fonseca University Luisiada do Porto, Porto, Portugal
- Professor Maria Ågren
 Uppsala University, Dept. of History,
 Uppsala, Sweden
- Professor Arnout Balis
 Vrije Universiteit, Dept. of Art History, Brussels, Belgium
- Professor Rajko Bratoz
 University of Ljubljana, Faculty
 of Philosophy, Ljubljana, Slovenia
- Professor Maurice Bric University College Dublin, School of History, Dublin, Ireland
- Professor Raymond Brulet
 Université Catholique de Louvain,
 Faculty of Philosophy and Letters,
 Louvain-La-Neuve, Belgium
- Professor Luca Codignola*
 Università di Genova, Faculty of Letters and Philosophy, Genova, Italia
- Professor Péter Dávidházi*
 Hungarian Academy of Sciences, Institute of Literary Studies,
 Budapest, Hungary
- Professor Leonidas Donskis
 Vytautas Magnus University, Political Science and Diplomacy School, Kaunas, Lithuania

- Professor Kirsten Drotner
 University of Southern Denmark, Centre of Media Studies, Odense, Denmark
- Professor Jacques Dubucs*
 Université Paris I, Institut d'Histoire et de Philosophie des Sciences et des Techniques, Paris, France
- Professor Peter Funke* Westfälische Wilhelms-Universität, Institute für Epigraphik, Münster, Germany
- Professor Kostas Gouliamos
 European University, Cyprus School of Business, Nicosia, Cyprus
- Professor Eila Helander
 University of Helsinki, Dept.
 of Practical Theology, Helsinki, Finland
- Professor Gürol Irzik
 Bogaziçi Universitesi, Faculty of Philosophy, Istanbul, Turkey
- Professor Kristin Kuutma
 University of Tartu, Faculty of Philosophy, Tartu, Estonia
- Professor Ulrike Landfester
 Universität St. Gallen,
 Kulturwissenschaftliche Abteilung,
 St. Gallen, Switzerland
- Professor Louisa-Irene Loukopoulou National Hellenic Research Foundation, Institute for Greek and Roman Antiquity, Athens, Greece
- Professor Bohuslav Mánek
 University of Hradec Králové,
 Pedagogical Faculty, Hradec Králové,
 Czech Republic



ESF's Science Structure (SCH)

- Professor Kari Melby* Dept. of Interdisciplinary Studies of Culture, Norwegian University of Science and Technology, Oslo, Norway
- Professor Slavomir Michálek
 Slovak Academy of Sciences,
 Institute of History, Bratislava, Slovakia
- Professor Claudine Moulin
 Universität Trier, Germanistik
 Trier, Germany, (representative for Luxembourg)
- Professor Svetlina Nikolova Todorova
 Bulgarian Academy of Sciences, Cyrillo-Methodian Research Centre, Sofia,
 Bulgaria
- Professor Jón Ólafsson Bifrost University, Borgarnes, Iceland
- Professor Ilie Parvu
 University of Bucharest, Faculty of Philosophy, Bucharest, Romania
- Professor Carmen Picallo Soler
 Universidad Autónoma de Barcelona,
 Faculty of Letters, Barcelona, Spain
- Professor Walter Pohl Austrian Academy of Sciences, Institute for Medieval Research, Vienna, Austria
- Professor Naomi Segal*
 University of London, Institute of Germanic & Romance Studies, London, United Kingdom
- Professor Martin Stokhof
 Universiteit van Amsterdam, Faculty of
 Humanities, Amsterdam,
 The Netherlands
- Professor Przemyslaw Urbanczyk
 Polish Academy of Sciences, Institute of Archaeology and Ethnology, Warsaw, Poland

- Professor Milena Zic-Fuchs* University of Zagreb, Faculty of Philosophy Zagreb, Croatia
- * The delegate is also a Core Group member

Subject Representative:

 Professor Gisli Palsson
 Anthropology, Dept. of Anthropology and Folkloristic, University of Iceland, Reykjavik, Iceland

Advisory Expert ERIH:

Professor Alain Peyraube
 Advisory Expert for the European
 Reference Index (ERIH), CNRS, Paris,
 France

Observers:

- COST Domain Committee Individuals, Societies, Cultures and Health (ISCH)
 Dr. David Gronbaek (to June 2008)
 Dr. Julia Stamm (from June 2008)
- Social Sciences and Humanities Research Council of Canada, Ottawa, Canada
 Dr. Carmen Charette
- National Endowment for the Humanities, Washington, USA
 Professor Bruce Cole
- Directorate L "Science, Economy and Society"
 Unit L4 "Scientific Culture and Gender Issues" European Commission
 Dr. Pascal Dissard
- Israel Academy of Sciences and Humanities,
 Professor Benjamin Isaac

ESF's Science Structure (LESC)

Standing Committee for the Life, Earth and Environmental Sciences (LESC)

All the important issues relating to our surroundings are covered by the Life, Earth and Environmental Sciences. Biosciences will make a growing impact in the 21st century as they contribute greatly to the very much needed sustainable development of our world. In the meantime, geosciences will continue to play a crucial role in the understanding of critical environmental issues that are facing mankind. There is a continuity of informational transfer from genome up through cell, community and environment and defining characteristics of life thus depends strongly on flux from the environment.

The Standing Committee aims at a better understanding of biological, environmental and Earth systems across time and space. LESC covers activities from molecular and systems biology over regional ecosystems to global change of the environment.

Besides utilising ESF's activities categorised under the ESF Strategic Plan to achieve its goals, LESC is also involved in the European Commission-backed ERA-NET project BiodivERsA (ERAC-CT-2005-517836) which includes 19 major research funding agencies from 15 countries in



Europe with significant research funding in the field of terrestrial, freshwater and marine biodiversity (p. XX). In addition LESC is a partner in the Co-ordination Action for Innovation in Life-Cycle Analysis for Sustainability (CALCAS- 037075) involving 12 organisations. It is also involved in the Specific Support Actions (SSAs) such as the Towards a European Strategy for Synthetic Biology (TESSY - 043449) and Systems Biology for Medical Applications (SysBioMed - 037673).

The motto of LESC is "Action together – make it happen!". LESC-COST synergy exemplifies this motto. Joint activities with COST previously focused mainly on Earth and environmental sciences but life and social sciences have recently also become an integral part of the synergy actions, in particular on aquaculture.

A prime example of this synergy with COST is evident in the multidisciplinary initiative Forward Look on "European Food Systems in a Changing World". Its objective is to develop medium to long-term views of future research developments around the thematic focus of food security. Food security is a primary societal goal in which food systems play a pivotal role.

A workshop in Preddvor, Slovenia in May 2007, brought together 26 experts to discuss future food systems and to conduct scenario exercises. Scenario exercises are a means of developing a research agenda by looking at factors that influence food systems, such as degree of climate change, energy security, health, technology innovation etc. The final conference took place in Budapest on inNovember 2007 and the outcome of this conference will be resulted in a final report and a Science Policy Briefing in 2008. Also in 2007, LESC took the lead in a corporate effort to further raise ESF's profile in the geosciences community. On the first day of the European Geosciences Union (EGU) 2007 General Assembly, the Symposium "Prospective views for European Cooperation in Geosciences & Environmental Sciences: Contributions in a global context", with twelve prominent keynote speakers, was a great opportunity to provide an integrated showcase of ESF activities and an open forum for discussion on future collaborative research. It also served as an introduction to several ESFsupported, topical sessions on the most recent achievements in the EUROCORES EUROMARGINS. Programmes EuroCLIMATE, EuroMinScl and EuroDIVERSITY, and the Research Networking Programmes EPICA. MedCLIVAR and ArchEnviron. In addition, the ESF corporate presence was reinforced throughout the week through the ESF booth. This visible participation of LESC in the EGU Assembly fruitfully facilitated the "networking of the networks" - the ESF EUROCORES and Research Networking Programmes - in the field of geosciences.

LESC also works closely with other Standing and Expert Committees, such as the Marine Board, the European Polar Board and the European Space Science Committee.

LESC is composed of leading scientists mandated to represent the ESF Member Organisations. Observers from other ESF Committees/Expert Groups or external organisations are also invited to attend Committee meetings, as are guests from the COST Domain Committees.

More information: www.esf.org/lesc

ESF's Science Structure (LESC)

Chair:

Professor Alexandre Tiedtke
 Quintanilha
 Institute of Molecular Biology,
 Porto, Portugal

Members:

- Professor Isabel Ambar
 Instituto de Oceanografia,
 Universidade de Lisboa, Portugal
- Dr. Hans Brix
 Institute of Biological Sciences,
 University of Aarhus,
 Denmark
- Professor Reinhart Ceulemans*
 Department of Biology,
 University of Antwerpen, Belgium
- Professor Constantin Doukas
 Department of Historical Geology and Palaeontology, University of Athens, Greece
- Dr. Angelos Efstathiou
 Department of Chemistry,
 University of Cyprus, Cyprus
- Professor Olivier Francis*
 University of Luxembourg, Luxembourg
- Dr. Françoise Gaill*
 Université Pierre et Marie Curie, Paris, France
- Professor Josef Glössl*
 Institute of Applied Genetics and Cell Biology,
 University of Natural Resources and Applied Life Sciences, Vienna, Austria

- Dr. Jean-Henry Hecq
 Département des Sciences et Gestion de l'Environnement,
 Université de Liège, Belgium
- Dr. Philippe Jean-Baptiste
 Laboratoire des Sciences du Climat et de l'Environnement, CEA Saclay, Gif-sur-Yvette, France
- Dr. Kerstin Johannesson
 Tjärnö Marine Biological Laboratory, Department of Marine Ecology,
 Göteborg University, Sweden
- Professor Alan G. Jones
 Dublin Institute for Advanced Studies, School of Cosmic Physics, Dublin, Ireland
- Dr. Hefin Jones*
 Cardiff School of Biosciences,
 University of Cardiff, United Kingdom
- Dr. Aslihan Kerç
 Faculty of Engineering,
 Marmara University, Turkey
- Professor Marek Konarzewski* Institute of Biology, University of Bialystock, Poland
- Dr. Ján Kraic
 Research Institute of Plant Production, Piest'any, Slovak Republic
- Professor Zeljko Kucan
 Faculty of Science,
 University of Zagreb, Croatia

- Professor Juozas Kulys
 Institute of Chemistry and Bioengineering,
 Vilnius Gediminas Technical University, Lithuania
- Dr. Sonja Lojen
 Department of Environmental Sciences,
 J. Stefan Institute, Slovenia
- Professor Volker Mosbrugger
 Institute of Geoscience,
 Universität Tübingen, Germany
- Professor Jan Motlik
 Institute of Animal Physiology and Genetics, Academy of Sciences of the Czech Republic, Libechov, Czech Republic
- Dr. Tiina Nõges
 Võrtsjärv Limnological Station Rannu, Estonia
- Professor Paavo Pelkonen University of Joensuu, Finland
- Dr. Maria Pilar Perez
 Instituto de Microbiologia Bioquemica, Universidad de Salamanca, Spain
- Dr. Olgeir Sigmarsson*
 Science Institute, University of Iceland and Laboratoire Magmas et Volcans, CNRS, Clermont-Ferrand, France
- Professor Mark Stitt*
 Max Planck Institute for Molecular Plant Physiology, Golm, Germany
- Professor Andreas Strasser
 Department of Geosciences,
 University of Fribourg, Switzerland

- Professor Mette Svenning
 Department of Biology,
 University of Tromsø, Norway
- Professor Angheluta Vadineanu
 National University Research Council, Bucharest, Romania
- Professor Zoltán Varga
 Department of Zoology and Evolution,
 Debrecen University, Hungary

Representatives from Bulgaria, France, Italy, the Netherlands and the UK are in the process of being nominated.

* The delegate is also a Core Group member

Observers:

- ESF Standing Committee for Physical and Engineering Sciences (PESC)
 Professor Elisabeth Guazzelli
- Marine Board ESF (Chair) Mr. Lars Horn
- Marine Board ESF (Vice-Chair)
 Dr. Jan Mees
- European Polar Board (Chair)
 Professor Carlo Alberto Ricci
- European Space Sciences Committee (Chair)
 Professor Jean-Pierre Swings
- Israel Academy of Science, Israel
 Professor Giora Simchen

ESF's Science Structure (PESC)

Standing Committee for the Physical and Engineering Sciences (PESC)

The strategy of the ESF Standing Committee for Physical and Engineering Sciences (PESC) is to develop and disseminate a pan-European vision on how to network research and innovation and to address the related societal issues in a more effective and sustainable manner. The Committee is a unique cross-disciplinary group which focuses on fundamental research and innovative engineering. PESC covers a broad spectrum of fields ranging from mathematics, informatics and fundamental sciences to computer sciences, materials research, physics, chemistry, applied sciences, new technologies and engineering. Networking activities supported by the Committee cover a wide range of experimental and theoretical approaches.

Some 2007 highlights:

- At the 2007 PESC Round Table with Member Organisations issues discussed were to identify scientific trends and requirements in chemistry, and discuss how to improve networking actions and what PESC can do to improve ESF support for the discipline. PESC has decided to highlight one scientific field in its remit each year at the Member Organisation Round Table Meetings with the goal to identify action items and to promote new initiatives for research and networking. It is foreseen that the 2008 Meeting with Member Organisations will concentrate on engineering.
- In October 2006, the PESC Core Group entered discussions with the European Materials Research Society (EMRS) and the European Materials Forum (EMF) on how to cooperate closer in support of

materials research and initiatives to create Knowledge and Innovation Communities (KICs), which are also foreseen as cornerstones for a European Institute of Technology (EIT). - A first result of these discussions was the "First World Materials Summit on Materials Research: Key to meeting Energy Needs and Climate Change" initiated and co-sponsored by PESC, EMRS, and EMF together with the Portuguese EU-Presidency, the European Commission, ALSTOM and the IUMRS. This conference took place in Lisbon on 4-5 October 2007. It was extremely successful in that it attracted highly renowned scientists, policy makers and industrial representatives and was a high class showcase on how sustainable energy supply and climate change are true global issues that require more than just scientific understanding but clear solutions with ramifications in all fields of research and society. In a final plenary session, the scientists present unanimously agreed to set up a new global networking initiative in this area. The global network, CORME (Coordination of Research on Materials for Energy), will be organised by the International Union of Materials Research Societies (IUMRS), working in conjunction with regional and national Materials Research Societies and related bodies. For Europe, the European Materials Forum (EMF) will be in charge. In this context the EMRS and EMF have raised the question if it would be suitable to establish an expert committee on new materials and materials research. Tasks for such a committee would include foresight exercises for materials sciences and servicing as a science board to express materials scientists' views to European institutions such as ESERI and the EC.



ESF's Science Structure (PESC)

Over 30 distinguished scientists, nominated by the Member Organisations active in the PESC remit, serve on the committee. Observers from the European Commission, the European Mathematical Society, the European Research Consortium for Informatics and Mathematics, the Israel Academy of Sciences, the U.S. National Science Foundations and the ESF Standing Committee for the Life, Earth and Environmental Sciences (LESC) are invited to committee meetings as are liaison members from the COST Domain Committees for Chemistry and Molecular Sciences and Technologies (CMST), Information and Communication Technologies (ICT), Materials, Physical and Nanosciences (MPNS) and, since 2007, an observer from the European Materials Forum (EMF). PESC also maintains close working relationships with the ESF Expert Committees on radio astronomy frequencies (CRAF), space sciences (ESSC), and nuclear physics (NuPECC).

More information: www.esf.org/pesc

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Chair:

Professor Michel Mareschal Université Libre de Bruxelles, Belgium

Members:

- Professor Andreas Alexandrou Universityal Cyprus
- Professor Yvonne Brandt Andersson
 Department of Materials
 Chemistry,
 Uppsala University, Sweden
 (from May 2007)
- Professor Jean-Marie André Laboratoire de Chimie Théorique Appliquée, Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium
- Professor Venko N. Beschkov Institute of Chemical Engineering, Bulgarian Academy of Sciences, Sofia, Bulgaria
- Professor René de Borst
 Department of Mechanical Engineering, Eindhoven University of Technology, Netherlands
 (from June 2007)
- Professor Katarzyna Chalasinska-Macukow
 University of Warsaw, Poland
 (from June 2007)
- Professor Kenneth Dawson
 Department of Chemistry,
 University College,
 Dublin, Ireland
 (from June 2007)

- Professor Wolfgang Ertmer Institute of Quantum Optics, University of Hannover, Germany (from September 2007)
- Professor Stavros C. Farantos
 University of Crete and
 Institute of Electronic Structure and
 Laser, FORTH, Iraklion, Crete, Greece
- Professor Walter Gear
 School of Physics and Astronomy,
 University of Wales,
 Cardiff, United Kingdom
- Professor Elisabeth Guazzelli*
 Institut Universitaire des Systèmes
 Thermiques Industriels,
 Université de Provence,
 Marseille, France
- Professor Ivan Hubac
 Department of Chemical Physics, Comenius University,
 Bratislava, Slovak Republic
- Dr. Fjola Jonsdottir
 Department of Mechanical and Industrial Engineering, University of Iceland, Reykjavik, Iceland
- Professor Katarzyna
 Chalasinska-Macukow
 University of Warsaw, Poland
- Professor S. Engin Kilic
 Department of Mechanical Engineering,
 Middle East Technical University,
 Ankara, Turkey
- Professor János Kollár
 Research Institute for Solid State
 Physics and Optics, Budapest, Hungary

ESF's Science Structure (PESC)

- Professor Ulrich Langer
 Institute of Computational
 Mathematics, Johannes Kepler
 University Linz, Austria
- Professor Manuel de León* Instituto de Matemática Aplicada y Física Fundamental, CSIC, Madrid, Spain
- Professor Bozidar Liscic
 Faculty of Mech. Engineering and Naval Architecture,
 University of Zagreb, Croatia
- Dr. Pasquale Lubrano* INFN - Perugia, Italy
- Professor Elaine B. Martin
 Chemical Engineering and Advanced Materials,
 University of Newcastle upon Tyne,
 United Kingdom
- Professor Enn Mellikov
 Department of Materials Science, Tallinn
 University of Technology, Estonia
- Professor José Cardoso Menezes Instituto Superior Técnico, Lisboa, Portugal
- Dr. Henri-Noël Migeon
 Laboratoire des Analyses de Matériaux, CRP Gabriel Lippmann, Luxembourg
- Professor Radu Munteanu
 Faculty of Electrical Engineering,
 Technical University of Cluj-Napoca,
 Romania
- Professor Ole John Nielsen
 Department of Chemistry,
 University of Copenhagen, Denmark

- Professor Moira C. Norrie
 Institut f
 ür Informations-systeme, ETH, Zurich, Switzerland
- Professor Valdemaras Razumas Institute of Biochemistry, Vilnius, Lithuania
- Professor Kenneth Ruud
 Department of Chemistry,
 University of Tromso, Norway
 (October 2007)
- Professor Kaisa Sere*
 Department of Computer Sciences,
 Åbo Academi University, Finland
- Professor Milan Tichy
 Department of Surface and Plasma Science, Charles University Prague,
 Czech Republic
 (from April 2007)
- Mrs. Malgorzata Tkatchenko CEA, Saclay, Gif sur Yvette, France
- Dr. Peter Venturini* National Institute of Chemistry, Ljubljana, Slovenia
- Professor Dorothea Wagner
 Faculty of Informatics,
 University of Karlsruhe, Germany
- Professor Michel Waroquier University Gent, Belgium

Representatives from Cyprus and Italy are in the process of being nominated.

* The delegate is also a Core Group member

Observers:

- ESF Standing Committee for the Life, Earth and Environmental Sciences (LESC)
 Professor Alexandre Quintanilha
- COST BMBS Biomedicne and Molecular Biosciences
 Professor Mihail Pascu
- COST CMST Chemistry and Molecular Sciences and Technologies
 Professor Venceslav Kaučič
- COST ICT Information and Communication Technologies Liaison and European Research Consortium for Informatics and Mathematics ERCIM
 Professor Juan José Moreno Navarro
- European Materials Research Society (EMRS) / European Materials Forum (EMF)
 Professor Gabriel Crean
- European Mathematical Society
 Professor Ari Laptev
- European Commission, DG Research
 Dr. Lorenzo Valles-Brau
- Israel Academy of Sciences and Humanities
 Professor Joseph Klafter
- National Science Foundation
 Division of Materials Research, National
 Science Foundation, United States



ESF's Science Structure (scss)

Standing Committee for the Social Sciences (SCSS)

The social sciences study the possibilities and constraints that surround human activity, open spaces, and erect limits around human creativity. Therefore they examine and explain human beings on different levels, from neural foundations to individual behaviour, group processes and the functioning of entire societies. Consequently, the social sciences employ a wide variety of methods tailored to be scientifically rigorous, and to ensure that reliable knowledge is secured.

Against this background, the SCSS funds and develops initiatives in the fields of psychology and the cognitive sciences, pedagogic and education research, social anthropology, sociology and gender studies, economics, business and administrative sciences, geography, demography, environmental sciences, law, political sciences, communication sciences, international relations, social statistics and informatics.

A European Collaborative Research Project (ECRP) is addressing citizens of the future: the concerns and actions of young people around current European and global issues to see what opinions young Europeans have on issues such as democratic processes, poverty, unemployment, human rights, the environment and conflict. The project will also compare how these opinions vary depending on the country of residence; in this case Poland, Spain and Turkey. www.uwm.edu.pl/citizens

The Forward Look on Higher Education in Europe beyond 2010 (www.esf.org/helf), which had its final conference in October 2007, and produced a report with five theme papers examining relationships between higher education and society is now expected to continue as a EUROCORES; the project Higher Education and Social Change (EUROHESC) was launched in early 2008.

Another success story concerns the Research Networking Programme Quantitative Methods in the Social Sciences (QMSS) www.esf.org/gmss, which ran from 2003-2007 and was enthusiastically taken up by 22 ESF Member Organisations. Data collection is only a first step in a complex process and specific standards and human capacity are required to compare and analyse the data statistics in order to translate them into that can be communicated - and that can then influence how policies are created and changes brought about. A series of workshop and, especially, the training of junior researchers in a series of summer schools, carried out within this project have been a first step and the project leaders now will continue to advance with a continuation of the current Programme in 2008 to be known as QMSS2.

Naturally, the social sciences benefit from the insights gained through related disciplines such as the human, life and medical sciences. These areas of convergence allow for a fuller understanding of the diverse facets of the social science enterprise, and range from literary, philosophical and historical inputs on the one hand, to biological and medical ones, including human biology, on the other. At the same time, almost all (medical, life and human) scientific problems have aspects that require the participation of social sciences in their thorough examination.
The members of the Standing Committee for the Social Sciences represent their national Member Organisation(s), and are leading figures within research councils or institutions within their countries. A number of observers, from important European and transatlantic social science institutions, regularly attend the bi-annual plenary SCSS meetings.

More information: www.esf.org/scss



ESF's Science Structure (scss)

Chair:

 Professor Sir Roderick Floud
 Dean of the School of Advanced Study, University of London, United Kingdom (from May 2007)

Members:

- Professor Tommy Bengtsson
 Lund University, Sweden
 (from September 2007)
- Professor John Coakley University College Dublin, Ireland
- Professor Ian Diamond/ Mr. Glyndwr Davies*
 Economic and Social Research Council, United Kingdom
- Professor Dalina Dumitrescu*
 National University Research Council, Romania
- Dr. Javier Esparcia Pérez University of Valencia Spain
- Professor Emmanuël Gerard Catholic University Leuven, Belgium
- Professor Galin Gornev
 Bulgarian Academy of Sciences, Bulgaria
- Professor Pieter Hooimeijer
 Utrecht University,
 Netherlands
- Professor Thorlakur Karlsson Reykjavik University, Iceland (from March 2007)

- Professor Rainer Kattel Tallinn University of Technology, Estonia (from February 2007)
- Professor Anne Kovalainen Turku School of Economics, Finland
- Professor Peter Kurrild-Klitgaard University of Copenhagen, Denmark
- Professor Volkmar Lauber University of Salzburg, Austria
- Professor Luisa Lima
 ISCTE Instituto Superior de Ciências do Trabalho e da Empresa, Portugal
- Professor Bogdan Mach* Polish Academy of Sciences, Poland
- Dr. Zdenka Mansfeldová
 Academy of Sciences of the Czech Republic, Czech Republic
- Dr. Silvia Miháliková
 Comenius University, Slovak Republic
- Professor Patrick Navatte* CNRS, France
- Professor Ilona Pálné Kovács
 Hungarian Academy
 of Sciences, Hungary
- Professor Pasqualina Perrig-Chiello*
 Universität Bern, Switzerland
- Professor Manfred Prenzel*
 Leibniz-Institut f
 ür die
 Pädagogik der Naturwissenschaften (IPN), Germany

- Professor Asbjørn Rødseth* University of Oslo, Norway
- Professor Davorin Rudolf
 Croatian Academy
 of Sciences and Arts, Croatia
- Dr. Savvas Savvides* Cyprus College, Cyprus
- Professor Slavko Splichal University of Liubljana, Slovenia
- Professor Georges Steffgen University of Luxembourg, Luxembourg
- Professor Luc Wilkin
 Université Libre de Bruxelles,
 Brussels, Belgium
- Professor John Yfantopoulos
 National Centre for Social Research, Greece

Representatives from Belgium, Italy, Lithuania and Turkey are in the process of being nominated.

* The delegate is also a Core Group member

Observers:

- European Commission, DG Research
 Dr. Dimitri Corpakis
- International Social Science Council
 Dr. Heide Hackmann
 (from March 2007)

- Israel Academy of Sciences and Humanities
 Professor Asher Koriat
- National Science Foundation, United States
 Dr. David Lightfoot
- COST Domain Committee Individuals, Societies, Culture and Health
 Dr. Laura Maratou-Alipranti (from September 2007)
- Social Sciences and Humanities Research Council, Canada
 Mr. Christian Sylvain

Advisory Expert:

 Norwegian Social Science Data Services
 Mr. Bjørn Henrichsen





ESF's Science Structure

Expert Boards and Committees

Marine Board - ESF

The increasing interdependence of marine research policies and programmes at national and at European levels, as well as the rapidly changing environment of European marine sciences, call for a new approach to the development of European research strategies. To this end, the Marine Board, established in 1995 by its Member Organisations, to facilitates enhanced coordination between the directors of European marine science organisations (research institutes, funding agencies and research councils) and the development of strategies for marine science in Europe. The Marine Board operates within the European Science Foundation.

As an independent non-governmental advisory body, the Marine Board is motivated by, and dedicated to the unique opportunity of building collaboration in marine research. The Marine Board develops insight, recognizing opportunities and trends, presenting compelling and persuasive arguments that shape the future of marine research in Europe.

The Marine Board provides the essential components for transferring knowledge for leadership in marine research in Europe. Adopting a strategic role, the Marine Board serves its Member Organisations by providing a forum within which policy advice to national agencies and to the European Commission is developed, with the objective of providing comparable research strategies at the European level. As a major science policy think-tank, the Marine Board:

Unites the outputs of advanced marine research;

Provides insights necessary to transfer research to knowledge for leadership and decision making;

Develops foresight initiatives to secure future research capability and to support informed policy making;

Places marine research within the European sociopolitical and economic issues that profoundly affect Europe.

The Marine Board operates via four principal approaches:

- Voice: Expressing a collective vision of the future for European marine science in relation to developments in Europe and world-wide, and improving the public understanding of science in these fields;
- Forum: Bringing together 26 marine research from 18 European countries to share information, to identify common problems and, as appropriate, find solutions, to develop common positions, and to cooperate;
- Strategy: Identifying and prioritising emergent disciplinary and interdisciplinary marine scientific issues of strategic European importance, initiating analysis and studies (where relevant, in close association with the European Commission) in order to develop a European strategy for marine research;
- Synergy: Fostering European added value to component national programmes, facilitating access and shared use of national marine research facilities, and promoting synergy with international programmes and organisations.

The Marine Board meets on plenary twice a year, while its Executive Committee of Chairman, vice-Chairpersons and Executive Secretary meet four times per year.

ESF's Science Structure (Marine Board)

Marine Board Working Groups

One of the Marine Board's assets is its capacity to be proactive in identifying research priorities through establishing and supporting Working Groups (WGs). These WGs are composed of high-level European experts who elaborate on specific marine science and technology topics. The output from a WG is a peer reviewed Position Paper, subsequently used at national and European levels to identify priorities for future research funding programmes. Recent Marine Board publications on strategic matters (downloadable on the Marine Board homepage):

- Impacts on Climate Change on the European Marine and Coastal Environment - Ecosystems Approach. Marine Board Position Paper 9, March 2007
- European Ocean Research Fleets
 Towards a Common Strategy and Enhanced Use. Marine Board Position Paper 10, March 2007
- Marine Board Statements in response to the European Commission's Green Papers on: (i) Maritime Policy, and (ii) ERA. Position Paper 11, November 2007 (see also p.27)

Pending publications:

- Remote Sensing of Shelf Seas Ecosystems.
 Marine Board Position Paper 12;
- The effects of anthropogenic sound on marine mammals -A draft research strategy. Marine Board position Paper 13.

New Marine Board WGs have been created and will begin their activities in 2008:

- Risk assessment and monitoring of existing and emerging new chemicals in the European marine and coastal environment;
- Science Dimensions of Ecosystem Approach to Management of Biotic Ocean Resources (SEAMBOR).

Marine Board Panels

Marine Board Panels aim to operate as collaborative, long term operational networks whose members benefit from mutual interactions and from interactions with the Marine Board.

Marine Board Panels:

- Marine Board Communications Network (created in 1999; re-established in 2006)
- New joint Marine Board EuroGOOS Panel on EMODNET is to be launched in 2008.

Marine Board Policy related activities

EurOCEAN 2007 and Aberdeen Declaration

Upon request from the European Commission the Marine Board organised EurOCEAN 2007 science policy conference, which resulted in the Aberdeen Declaration, supporting the European Maritime Policy and highlighting significance of bringing marine and maritime groups together.

Building on existing momentum, the Marine Board brought together the EurOCEAN 2007 organising committee, the Aberdeen+ Interest Group, to organise a science conference The role of marine sciences in ocean sustainability and global change, as a Portuguese EU Presidency Event (8 October 2007, Lisbon).

Blue Paper on the Maritime Policy and related Action Plan

The EC Blue Paper on the Maritime Policy (adopted on 10 October 2007), which includes a plan of action to improve crosssectoral collaboration between maritime players, includes the recommendations as expressed in the Aberdeen Declaration and in the Marine Board Position Paper 11.

Marine Board FP6 activities

MarinERA

The Marine Board is the joint coordinator of MarinERA (an FP6 ERA-NET) (p.120) in association with Ifremer (French Institute for the Exploitation of the Sea). MarinERA aims to facilitate the coordination of national and regional marine RTD programmes in Europe. A common call for research proposals to address "Regional Drivers of Ecosystem Change: Description, Modeling and Prediction", involving funding from six European marine research organisations, is to be launched in February 2008 with a provisional funding envelop of approximately € 5M.

MarinERA publications 2007:

"Barriers to Cooperation in MarinERA Partner State Marine RTD Programmes" (MarinERA Technical Report 2, February 2007)

AMPERA

The Marine Board is in a task leader in AMPERA, another FP6 ERA-NET, whose aim is to foster prevention of, and best response to, accidental marine pollution. The Marine Board's responsibility is to ensure effective engagement with other Marine ERA-NETS. The Marine Board organised the 3rd Marine / Environmental ERA-NET Forum (February 2007, Brussels), to address key regional research policy concepts and perspectives.

FEUFAR

The Marine Board Secretariat represents the Marine Board in the FEUFAR Consortium of seven partners. FEUFAR (Future of European Fisheries and Aquaculture Research) is an FP6 funded Specific Support Action addressing the modernisation and sustainability of fisheries policies. The objective of the initiative is to undertake a foresight analysis to identify key challenges and options towards a more sustainable development of European fisheries and aquaculture industries.

Marine Board Secretariat relocation – Strengthening synergies

From November 2007 the Marine Board Secretariat operates from Ostend (Belgium). Responding to an offer from the Government of Flanders, this relocation was judged and approved by the Marine Board in May 2006 within the perspective of developing synergy with other colocated agencies (e.g. VLIZ, UNESCO's Project Office for IODE and EFARO) for the benefit of marine science in the European Research Area. The Government of Flanders established the facility as a centre of marine secretariats in support of global marine research launched as "InnovOcean".

More information: www.esf.org/marineboard

ESF's Science Structure (Marine Board)

Chair:

Mr. Lars Horn Norges Forskningsrådet, Norway

Vice Chairs:

- Dr. Antoine Dosdat
 Institut Français de Recherche pour
 l'Exploitation de la Mer (IFREMER),
 France
- Professor Edward Hill
 National Oceanography Centre,
 Southampton (NOCS), United Kingdom
- Dr. Jan Mees
 Fonds voor Wetenschappelijk
 Onderzoek Vlaanderen (FWO), Belgium
- Professor Jan Willem de Leeuw
 Koninklijke Nederlandse
 Akademie van Wetenschappen (KNAW),
 Netherlands
- Dr. Kostas Nittis
 Hellenic Centre for Marine Research (HCMR), Greece
- Dr. Kaisa Kononen The Academy of Finland

Delegates:

- Professor Jean-Marie Beckers
 Fonds National
 de la Recherche Scientifique (FNRS),
 Belgium
- Dr. Alessandro Crise
 Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Italy
- Professor Jerzy Dera Polska Akademia Nauk (PAN), Poland

- Dr. Annalisa Griffa
 Consiglio Nazionale delle Ricerche (CNR), Italy
- Dr. Kerstin Johannesson
 Vetenskapsrådet, Sweden
- Dr. Jaana Lehtimäki
 Suomen Akatemia /Finlands Akademi,
 Finland
- Dr. Karin Lochte
 Deutsche Forschungsgemeinschaft (DFG),
 Germany
- Dr. Nicole Papineau
 Centre National de la Recherche Scientifique (CNRS), France
- Dr. Beatriz Morales-Nin
 Consejo Superior de
 Investigaciones Científicas (CSIC), Spain
- Mr. Tore Nepstad Havforskningsinstituttet, Norway
- Mr. Geoffrey O'Sullivan Marine Institute, Ireland
- Dr. Gregorio Parrilla Instituto Espanol de Oceanografía (IEO), Spain
- Professor Sevcan Çolpan Polat-Beken Türkiye Bilimsel ve Teknolojik Arastirma Kurumu (TÜBITAK), Turkey
- Dr. Bo Riemann
 Forskningsrådet for Natur og Univers (FNU), Denmark

- Professor Mario Ruivo
 Fundação para a Ciência e a Tecnologia (FCT), Portugal
- Dr. Raymond Schorno
 Nederlandse Organisatie
 voor Wetenschappelijk
 Onderzoek (NWO), Netherlands
- Dr. Tarmo Soomere
 Eesti Teaduste Akadeemia, Estonia
- Professor Bodo von Bodungen Hermann-von-Helmholtz-Gemeinschaft deutscher Forschungszentren (HGF), Germany
- Dr. Mike Webb
 Natural Environment Research
 Council (NERC), United Kingdom

Observers:

- Dr. Jacques Fuchs
 European Commission
 DG Fisheries and Maritime Affairs
- Mr. Pierre Mathy European Commission DG Research



ESF's Science Structure (EPB)

European Polar Board (EPB)

EPB is Europe's strategic advisory body on science policy in the polar regions. It acts as a voice and high-level facilitator of cooperation between European national funding agencies, national polar institutes and research organisations.

The European Polar Board is concerned with major strategic priorities in the Arctic and Antarctic and has members from national operators and research institutes in 20 countries. The Board is taking a central role in the coordination of European agencies and infrastructure managers in the strategic issues of the International Polar year 2007-2009.

Established in 1995, the European Polar Board, the ESF's expert committee on science policy in the Polar Regions, is acting as a voice and facilitator of cooperation between European National Funding Agencies, National Polar Institutes and research organisations and the European Commission.

EPB is taking a central role in the coordination at European level of the International Polar Year 2007-2009, a global event focusing on the importance of the polar regions for humankind. Major focus areas are on education, outreach and communication; enhancing political visibility. The European Polar Board has active liaison with the director of United States Polar Agency at the National Science Foundation and has been involved in discussions with other international agencies on international cooperation in the Polar regions. The high profile European Launch of the International Polar Year at the European Parliament in Strasbourg, attended by the special representative of President Putin and other high level dignitaries, brought together all committees of the ESF. The ESF coordination for the event is an example of a successful interdisciplinary collaboration between the ESF Committees.

EPB is also a major managing partner in the European Polar Consortium (EUROPOLAR) composed of 25 ministries and funding agencies and national polar authorities from 19 countries including the Russian Federation and Greenland Home Rule Government, and supported under the European Commission Framework programme 6 ERA-NET priority (ERAC-CT-2005-517842).

The ESF through the European Polar Board unit is the Official coordinator of the ERICON AURORA BOREALIS (European Research Ice Breaker Consortium) a project supported under EC FP7 as part of the implementation of the ESFRI roadmap projects. This 4.5 Million Euro project will focuse on the strategic, management, legal and financial aspects of implmenting this large scale research facility and involves 15 partners from 10 countries over four years.

The Board's long term strategy with respect to facilitating the construction of the AURORA BOREALIS European Icebreaker has taken a major step forward with the first successes of an EPB-coordinated Consortium bid to the FP7 Research Infrastructures theme for the Preparatory Phase of the project.

More information: www.esf.org/epb

EPB Executive Committee Chair:

Professor Carlo Alberto Ricci, President of the Italian National Scientific Committee for Antarctic Research, Italy

Vice-chairs:

Professor Anders Karlqvist, Swedish Polar Research Secretariat Director, Sweden Professor Alexander Guterch, Poland Professor Jan Stel, The Netherlands Dr. Hanne K. Petersen, Danish Polar Center Director, Denmark Dr. Gérard Jugie, IPEV Director, France

European Space Sciences Committee (ESSC)

The European Space Sciences Committee, established in 1975, grew out of the need for a collaborative effort that would ensure European space scientists made their voices heard on the other side of the Atlantic, in an era when successive Apollo and space science missions had thrust the idea of space exploration into the collective conscious for the first time.

More than 30 years later the ESSC has become even more relevant today as it acts as an interface with the European Space Agency (ESA), the European Commission, national space agencies, and ESF Member Organisations on space-related aspects. The mission of the ESSC is to provide an independent European voice on European space research and policy.

The ESSC is non-governmental and provides an independent forum for scientists to debate space sciences issues. The ESSC is represented ex officio in ESA's scientific advisory bodies, in ESA's High-level Science Policy Advisory Committee advising its Director General, in the EC's FP7 Space Advisory Group, and it holds an observer status in ESA's Ministerial Councils. At the international level, ESSC maintains strong relationships with the NRC's Space Studies Board in the U.S., and corresponding bodies in Japan and China.

In line with the ESSC review in November 2003, a Strategic Plan for the Period 2007-2010 was published to enable the Committee to re-examine its position on the European space scene and the role it can play vis-à-vis the other space actors. Two main goals of this Strategic Plan are:

- To amplify and diversify the role of the Committee, with the goal of becoming the advisory body of the European Union on space sciences.
- To bring together in an informal setting European national programme managers and top-level scientists and engineers and provide them with the possibility to identify pan-European strategic challenges and interact on common problems.

At the request of ESA, and in preparation for their 2008 Ministerial Council, ESSC has conducted a strategic evaluation and consultation of the relevant scientific communities, in order to establish recommendations on a science-driven scenario for Europe's exploration programme. Dubbed "Emergence and evolution of life with its planetary environment", this scenario lays the ground for Europe's scientific human exploration of the solar system in the next decades. Furthermore ESSC and SCH have launched an interdisciplinary cooperation to reflect on the humanities-related aspects of space exploration (one workshop and one conference in 2007).

ESF's Science Structure (ESSC)

The ESSC has a new Chair since May 2007. Professor Jean-Pierre Swings is an astrophysicist from the University of Liège in Belgium. His main tasks over the next two years will be to materialise the Strategic Plan in a very concrete manner.

Among the activities that the ESSC will have in 2008 are:

 The evaluation of ESA's programme in life and physical sciences in space, including its exploration component;

- The assessment of potential European capacity for development of radioisotopic devices for space exploration;
- The finalisation and approval of its Financial Plan 2008-2012 with its Funding Organisations.

More information: www.esf.org/essc



Chair:

 Professor Jean-Pierre Swings Institut d'Astrophysique et de Géophysique, Liège, Belgium

Members:

- Professor Angioletta Coradini
 CNR-Istituto di Fisica dello Spazio
 Interplanetario, Roma, Italy
- Dr. Michel Deshayes
 Maison de la Télédétection,
 CEMAGREF-CIRAD-ENGREF,
 Montpellier, France
- Professor Hans Jörg Fecht
 Abteilung Werkstoffe der Elektrotechnik,
 Universität Ulm, Germany
- Professor Monica Grady
 Planetary & Space Sciences Research
 Institute, The Open University,
 Milton Keynes, United Kingdom
- Professor Matt Griffin
 School of Physics and Astronomy,
 University of Cardiff, United Kingdom
- Professor Per Barth Lilje
 Institute for Theroretical Astrophysics, University of Oslo, Norway
- Dr. José Miguel Mas-Hesse
 Centro de Astrobiologia, CSIC-INTA,
 Torrejon de Ardoz (Madrid), Spain
- Professor Göran Scharmer
 Institute for Solar Physics, Royal
 Swedish Academy of Sciences,
 Stockholm, Sweden

- Professor Christiane Schmullius
 Department of Geoinformatics,
 Friedrich Schiller Universität,
 Jena, Germany
- Dr. Catherine Turon
 Laboratoire Galaxies, Etoiles,
 Physique et Instrumentation,
 Observatoire de Paris-Meudon, France
- Professor Manuel G. Velarde Unidad de Fluidos, Instituto Pluridisciplinar, Universidad Complutense de Madrid, Spain
- Professor Karel Wakker Institute for Space Research, SRON, Utrecht, The Netherlands
- Dr. Frances Westall
 Centre de Biophysique Moléculaire,
 CNRS, Orléans, France



ESF's Science Structure (CRAF)

Committee on Radio Astronomy Frequencies (CRAF)

Established in 1988, CRAF represents all the major radio astronomical observatories in Europe. Its mission is to coordinate the protection of the frequency bands used by radio astronomers in Europe i.e. to keep them free from interference. This task will remain indispensable for astronomical science in the foreseeable future. The committee's pursuit of this task is becoming increasingly difficult, given the steady increase in global use of the electromagnetic spectrum for both terrestrial and space-borne communications e.g. mobile telephones.

At the European level, the committee plays a key role in defining, coordinating and articulating the frequency needs of the radio astronomy community. In the global framework CRAF is the European Sector Member of the International Telecommunication Union (ITU). Committee on Radio Astronomy Frequencies (CRAF) CRAF continues to defend the interests of the radio astronomy, passive remote sensing and related science communities in Europe, and indeed more widely, by seeking to protect the frequency bands allocated to these domains. This becomes ever more important as the pressure on the frequency spectrum increases due to new commercial applications demanding more bandwidth and new frequency bands, whilst major new Research Infrastructure investments are planned for radio-astronomy and other domains. The protection of frequency bands dedicated to fundamental science explorations could be misinterpreted as a non-scientific activity. The evidence is totally in the opposite direction. Arguments pro and against spectrum management choices are deeply related to what are the frontiers of science and technology today and to what are the objectives of the science projects that are expected to be undertaken in the future, issues where ESF itself can contribute a lot.

More information: www.esf.org/craf

Chair:

Professor Roberto Ambrosini Istituto di Radioastronomia I.N.A.F., Bologna, Italy

Members:

- Dr. Rafael Bachiller
 Observatorio Astronomico Nacional IGN, Madrid, Spain
- Dr. Valery Bezrukovs
 Ventspils International Radio Astronomy Center, Ventpils, Latvia
- G. Butin
 - Institut de Radio Astronomie Millimétrique, IRAM, Headquarters, Domaine Universitaire de Grenoble, France
- Dr. Frederic Clette

Observatoire Royal de Belgique, Département de Physique Solaire, Bruxelles, Belgium

- Professor Luis Manuel dos Santos
 Rocha Cupido
 Centro de Físicados Plasmas, Instituto
 Superior Técnico, Lisboa, Portugal
- Dr. André Deschamps
 Observatoire de Paris, LERMA, Paris, France

ESF's Science Structure (CRAF)

- Dr. Wim van Driel
 Observatoire de Paris, GEPI,
 Meudon, France
- Dr. Istvan Fejes
 FOMI SatelliteGeodetic Observatory, Budapest, Hungary
- Professor Ernst Fürst
 Max-Planck Institut für Radio
 Astronomie, Radio-observatorium
 Effelsberg, Bad Münstereifel, Germany
- Dr. Axel Jessner
 Max-Planck Institut f
 ür Radio Astronomie, Bonn, Germany
- Dr. K. Jiricka
 Astronomical Observatory, Ondrejov,
 Czech Republic
- Dr. A. A. Konovalenko National Academy of Sciences, Department of Decameter Radio Astronomy, Kharkov, Ukraine
- Dr. Ibrahim Küçük
 Erciyes University, Department of Astronomy and Space Sciences, Kayseri, Turkey
- Professor Michael Lindqvist
 Onsala Space Observatory,
 Onsala, Sweden
- Robert Millenaar
 Netherlands Foundation for Research in Astronomy, Dwingeloo, The Netherlands
- M. Mingaliev
 Special Astrophysical Observatory
 Nizhnij Arkhyz, Karachai-Cirkassian
 Republic, Russia
- Dr. Christian A. Monstein
 Radio Astronomy Group, Institute of Astronomy, ETH Zentrum, Zürich, Switzerland

- Dr. J. P. V. Poiares Baptista ESTEC / ESA, Noordwijk, The Netherlands
- Dr. Jouko Ritakari
 Metsähovi Radio Observatory,
 Kylmälä, Finland
- W. Schlueter
 Fundamentalstation Wettzell,
 Bad Kötzting, Germany
- Professor J.H. Seiradakis
 Aristoteleion University of Thessaloniki, Astrophysics, Astronomy & Mechanics, Greece
- H. Smith Mullard Radio Astronomy Observatory, Cavendish Laboratory, Cambridge England, UK
- P. Thomasson
 University of Manchester, Jodrell Bank
 Observatory, Macclesfield,
 United Kingdom
- Dr. Jerzy B. Usowicz
 Torun Centre for Astronomy,
 Dept. of Radio Astronomy, Poland
- Dr. Gudmund Wannberg
 EISCAT Scientific Association, Kiruna, Sweden
- Pietro Bolli

(CRAF Secretary) Osservatorio Astronomico di Cagliari, Istituto Nazionale di Astrofisica, Loc. Poggio dei Pini, Italy

- Laurentiu Alexe
 (Frequency Manager) CRAF, P.O. Box 2, The Netherlands
- Patrick Bressler (ESF liaison)



Nuclear Physics European Collaboration Committee (NuPECC)

This Expert Committee's tasks are to strengthen European collaboration in nuclear physics and science. NuPECC defines a network of complementary facilities within Europe and encourages optimisation of their use. The Committee provides a forum to discuss the exploitation of future facilities and instrumentation; and to issue recommendations on the development, organisation, and support of European nuclear physics, and of particular projects.

NuPECC regularly presentss reports on scientific issues of importance to the European nuclear physics community and publishes a Long-Range Plan (Forward Look) every 6 years delineating the perspectives for the field and giving recommendations and priorities for the advancement of nuclear science in Europe.

NuPECC continues to pursue its joint initiative with the European Physical Society, PANS (Public Awareness of Nuclear Science), and produces pamphlets, books and CDs. NuPECC also continues to work closely with nuclear physics research networks supported via the Framework programmes of the European Commission. NuPECC's guinguennial forward looking exercises have traditionally had a significant effect on the development of the domain within Europe. Its reputation in these activities resulted in the direct submission of NuPECC recommendations, in line with the "NuPECC Roadmap for Construction of Major Research Facilities in Europe" (see http://www.nupecc.org/pub) to the first ESRFI Roadmap and the emergence of NuPECC's top recommendations for new facilities relevant for the nuclear physics community (FAIR in Darmstadt, Germany, and SPIRAL2 in Caen, France) on the ESFRI List. These projects are thus eligible for funding by the European Commission under "Construction of New Infrastructure - Preparatory Phase". During 2008 NuPECC will begin preparations for its next "perspectives" exercise.

Through its quarterly magazine, Nuclear Physics News International, NuPECC provides accurate and timely updates on the status of nuclear science. NuPECC acts as the scientific advisory Committee to NuPNET, the recently established ERA-NET in Nuclear Physics funded by the EU in FP7.

More information: www.esf.org/nupecc and www.nupecc.org

ESF's Science Structure (NuPECC)

Chair:

Professor Brian Fulton
 University of York,
 Department of Physics, United Kingdom

Members:

- Professor Claude Amsler CERN, Genève, Switzerland
- Professor Jean-Paul Blaizot
 European Centre for Theoretical Studies in Nuclear Physics and Related Areas, Trento, Italy
- Dr. Angela Bracco Milano, Italy
- Professor Tullio Bressani
 Istituto Nazionale Fisica Nucleare,
 Dept. of Experimental Physics,
 Torino, Italy
- Dr. Roman Caplar Zagreb, Croatia
- Dr. Jan Dobes
 Academy of Sciences of the Czech
 Republic, Nuclear Physics Institute,
 Rez (Prague), Czech Republic
- Professor Ana Maria Eiró Centro de Física Nuclear da Universidade de Lisboa, Portugal
- Dr. Jens Jørgen Gaardhøje Copenhagen, Denmark
- Dr. Dominique Goutte, Ganil, Caen, France
- Dr. Dominique Guillemaud-Mueller Groupe Physique Nucléaire Ions Lourds, Institut de Physique Nucléaire d'Orsay, France

- Professor Hans-Ake Gustafsson
 Department of Physics,
 Lund University, Sweden
- Dr. Bernard Haas
 Centre d'Etudes Nucléaire de Bordeaux
 Gradignan, France
- Professor Muhsin Harakeh Kernfysisch Versneller Instituut, Rijksuniversiteit Groningen, The Netherlands
- Dr. Sotirios Harissopulos
 National Centre for Scientific Research
 "Demokritos", Athens, Greece
- Professor Paul-Henri Heenen Université Libre de Bruxelles, Belgium
- Dr. Rauno Julin
 Dept. of Physics,
 University of Jyväskylä, Finland
- Dr. Attila Krasznahorkay
 Hungarian Academy of Sciences,
 Institute of Nuclear Research,
 Debrecen, Hungary
- Dr. Thomas Peitzmann Utrecht, The Netherlands
- Professor Alfredo Poves
 Departamento de Física Teórica,
 Universidad Autónoma de Madrid,
 Spain
- Dr. Dieter Röhric
 Institutt for fysik og teknologi,
 University of Bergen, Norway
- Professor Günther Rosner
 Department of Physics and Astronomy, University of Glasgow, United Kingdom

- Professor Horst Stöcker
 Darmstadt, Germany
- Professor Hans Ströher
 Institut f
 ür Kernphysik,
 Forschungszentrum J
 ülich, Germany
- Professor Jan Styczen The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences, Cracow, Poland
- Professor Jochen Wambach Institute for Nuclear Physics, Technische Hochschule, Darmstadt, Germany
- Professor Eberhard Widmann Stefan Meyer Institute for Subatomic Physics, University of Vienna, Austria
- Dr. Nicolae-Victor Zamfir
 Bucharest, Heavy Ion Department,
 Bucharest, Romania
- Gabriele-Elisabeth Körner München, Germany (Scientific Secretary)
- Patrick Bessler (ESF Liaison)

ESF's Science Structure

Science Advisory Board

The Science Advisory Board (SAB) is composed of six high level researchers with a broad disciplinary balance with very strong scientific reputations as the first consideration, covering the whole research spectrum, plus the Chairs of ESF's five Standing Committees. Members are chosen from nominations by ESF Member Organisations and are appointed by the Governing Council for a maximum period of three years, renewable once.

The SAB advises the Chief Executive on strategic science issues, and scientific advice with regard to ESF's key instruments (including EUROCORES, Forward Looks, ESF Conference Scheme). It also provides overall science quality control of the ESF, such as overseeing the complete peer review system, the composition and operation of ESF Panels and Committees (including Review Panels, Forward Look Management and Scientific Committees, European Latsis Prize, Expert Committees), safeguarding of the interdisciplinarity of ESF instruments and keeping an oversight on ESF procedures.

Independant Members:

- Professor Raimo Väyrynen (Chair) (Political Sciences)
 Finnish Institute of International Affairs Finland
- Professor Edouard Brézin (Theoretical Physics)
 Département de Physique Laboratoire de Physique Théorique de l'Ecole Normale Supérieure France
- Professor Judith Howard (Structural Chemistry)
 Science Laboratories Department of Chemistry University of Durham United Kingdom

- Professor Amélie Mummendey (Social Psychology) Lehrstuhl Sozialpsychologie Institut für Psychologie Friedrich-Schiller-Universität Jena Germany
- Professor Kai Simons

 (Molecular Cell Biology)
 Max-Planck-Institute of Molecular Cell
 Biology and Genetics
 Germany
- Professor Louise Vet (Ecology) Netherlands Institute of Ecology (NIOO) The Netherlands

Standing Committee Chairs:

- Professor Sir Roderick Floud (Economic History)
 Social Sciences (SCSS)
 London Metropolitan University
 United Kingdom
- Professor Liselotte Højgaard (Clinical Physiology)
 European Medical Research Councils (EMRC)
 Director, Head of Department
 Clinical Physiology, Nuclear Medicine
 & PET Rigshospitalet
 University of Copenhagen
 Denmark
- Professor Michel Mareschal (Statistical Mechanics)
 Physical and Engineering Sciences (PESC) Universite Libre de Bruxelles Belgium

- Professor Gretty Mirdal (Clinical Psychology) Humanities (SCH) Department of Psychology Institute of Clinical Psychology University of Copenhagen Denmark
- Professor Alexandre Quintanilha (Biochemical Physiology)
 Life, Earth & Environmental Sciences (LESC)
 Director Instituto de Biologia
 Molecular e Celular
 Portugal



In order to provide the latest available information on ESF Finances, the 2007 accounts are published in this annual report.

The accounts were presented to and discussed by the ESF Finance and Audit Committee at its March 2008 meeting, and approved by the Governing Council at its April meeting.

Activities and Budget Structure

ESF and its activities are mainly funded by contributions from ESF Member Organisations and grants from the European Commission.

The General Budget is used to finance the running of the office and general infrastructure (employment and running expenses), and core scientific activities that are essential for the proper implementation of the ESF mission (meetings of the Standing committees, Forward Looks, Exploratory Workshops, support to Conferences, scientific networks, science policy and strategic activities, quality assurance, communication and governance).

All ESF Member Organisations contribute to the General Budget according to a scale of contributions set out according to the Statute and outlined in Table 7.

Other activities are funded à la carte, only by those Member Organisations interested in participating. These activities are the ESF Research Networking Programmes



and the ESF Expert Committees and Boards. The ESF also runs special budgets involving partnerships such as the ESF Research Conferences. A breakdown of the ESF budget structure is provided in Table 1.

In addition, the European Commission provides funding to ESF for the management of COST activities, which accounts for around 44 percent of the total expenditure in 2007, for the support of EUROCORES, the coordination of the EURYI scheme and the participation in several other EC programmes.

Overall comments on 2007 Income and Expenditure

After a significant increase in activities of 8,5% in 2006, 2007 resulted in a more moderate growth of 7% corresponding to an overall level of funding of 47.1M€, as shown in the Consolidated Income and Expenditure Statement (Table 2 and Chart 1).

Adjusted with the necessary provisions for contingencies and anticipated overhead on accruals attached to the EC contracts, ESF globally ends the year with a consolidated result amounting to 19k€ in the management accounts.

The statutory accounts, detailed in Tables 4 and 5, show a consolidated excess of income of 221k€ at year end, which is reconciled to the result in management accounts (Table 6).

The development of income mainly relates to activities within the COST contract, the EUROCORES support contract, ESF Research Networking Programmes and the ESF Research Conferences. The main decreases relate to the General Budget and the EURYI support contract. The evolution in expenditure is explained by the strategy followed by ESF during 2007 and also takes into account the management of new responsibilities attached to the EC contracts.

The General Budget carries all indirect and residual costs related to the EC contracts, together with the provisions for contingencies (582k€) that are necessary to protect MOs from the constraints and risks attached to such contracts. Although these provisions are not accounted for as such within the Statutory Accounts, our cautious approach has led us to continue building them transparently into the Management Accounts.

General budget expenditure in science activities is slightly lower than in 2006. This budget envelope covers ESF core strategic and science policy instruments such as Forward Looks, Workshops, Conferences and Quality Assurance.

At the same time, employment costs and running expenses of the General Budget were slightly below budget.

Overall comments on the 2007 Balance Sheet

The ESF Consolidated Balance Sheet (Table 3) gives an instant picture of the patrimonial situation of the organisation at the end of the year.

The positive cash situation, reflecting a pro active management of available cash, and the increase in funds received in advance are both mainly linked to the management of funds related to EC contracts.

The following tables provide a consolidated overview of all funds managed by ESF in 2007

Budget Structure

Table 1: Detailed structure

Key Figures

Chart 1: Consolidated Expenditure 2007 Chart 2: Detail of Science Activities Funded by the General Budget

Management Accounts

Table 2: Income and Expenditure StatementTable 3: Consolidated Balance Sheet

Statutory Accounts

Table 4: Income and Expenditure Statement

Table 5: Statutory Balance Sheet

Table 6: Reconciliation of the balance of the year between Management and Statutory Accounts

This table explains differences between the Management Accounts (which take into account some business situations not necessarily reflected in statutory terms) and the Statutory Accounts, which follow International Accounting Standards.

Other

Table 7: Scale of contributions

Budget Structure

Table 1: Detailed structure

Budget component	Related activities	Sources of funding
General Budget	 Basic activities that are essential for the proper implementation of the ESF mission such as Exploratory Workshops and Forward Looks Quality assurance Running of the Office and general infrastructure 	 Contributions from MOs Other internal income (Financial earnings) Overheads from external contracts
À la carte	 Specific activities such as Research Networking Programs and Expert Boards 	• Contributions from MOs on an à la carte basis
Partnerships	Partnership activities such as Conferences	 Partners' contributions Contribution from General Budget Participation fees
Contracts with external parties	 Support for the coordination of programmes such as EUROCORES, EURYI, EuroBioFund and ERA-NETS Management of scientific secretariats for activities such as COST 	Grants from the European Commission

Key Figures

Chart 1: Consolidated Expenditure 2007



Chart 2: Detail of Science activities funded by the General Budget in 2007



Management Accounts

Table 2: Income and Expenditure Statement (k€)

	EXPENDITURE	2006	2007
	General Budget	12 489	11 943
	Expenditure	10 514	10 532
	Science. Science Policy and Strategy	4 091	3 816
	Employment Costs	5 292	5 545
	Bunning Expenses Equipment & Works IS Project	1 131	1 171
	······································		
	ESE Management Provisions for Contingencies	1 095	582
	linked to external contracts		002
	linked to external contracts		
	Desidual costs from EC contracts	000	800
	Residual costs from EC contracts	000	029
		4 004	1.005
	Account for Closed Programmes	1 381	1 205
	Expenditure	410	149
	Allocation to dedicated funds	971	1 116
	ESF Research Networking Programmes	4 491	5 003
	Expenditure	4 491	5 003
	A La Carte Expert Committees	705	907
	Expenditure	705	907
	•		
	ESE Besearch Conferences	1 243	2 003
	Expanditura	1 2/3	2 003
	Experialitate	1 243	2 003
	COST Contract	19 577	20 929
	Direct incurred expenditure	17 544	20 854
	Depreciation of fixed assets	93	75
	Accrued expenses	1 940	
	EUROCORES Support Contract	2 957	3 937
	Direct Expenditure	2 957	3 937
	EURYI Support Contract	463	246
	Direct Expenditure	463	246
		100	2.10
	Other External Contracts	700	120
		702	001
		702	106
_			
	TOTAL Expenditure	44 008	47 094





2007 Balance	NET INCOME	2006	2007
16	General Budget	12 449	11 959
	Internal Income	7 809	7 894
	Contributions from Member Organisations	6 652	7 018
	Additional Contributions	2	1
	ESF Administrat ive Overhead	545	537
	Financial earnings of the year	235	338
	Use of Provisions and dedicated funds	375	
	External Funding	4 640	4 065
3	Account for Closed Programmes	1 385	1 268
	Transfer from Closed Programmes	392	293
	Other Income	3	5
	Reversal of dedicated funds	990	970
	ESF Research Networking Programmes	4 491	5 003
	Contributions	4 938	5 451
	ESF Administrative Overhead	-447	-448
	A La Carte Expert Committees	705	907
	Contributions	754	956
	ESF Administrative Overhead	-49	-49
	ESF Research Conferences	1 243	2 003
	Conference Fees	349	666
	European Union Grants	0	0
	Partnerships and Miscellaneous income	423	773
	Contributions from General Budget	520	604
	ESF Administrative Overhead	-49	-40
	COST Contract	19 577	20 929
	EC Contribution	23 252	23 822
	Bank interest	195	177
	Other contributions		
	Overhead on Direct expenditure	-3 870	-3 070
	EUROCORES Support Contract	2 957	3 937
	EC Contribution	3 376	4 490
	Bank interest	77	215
	Overhead on Direct expenditure	-496	-768
	EURYI Support Contract	463	246
	EC Contribution	556	207
	Bank interest	11	39
	Overhead on Direct expenditure	-104	0
	Other External Contracts	702	861
	FC Contribution	863	960
	Bank interest	003	300
	Overhead on Direct expenditure	-170	-129
		110	120
10	TOTAL Incomo	13 072	47 112

Table 3: Consolidated Balance Sheet (ke)

ASSETS	2006	2007
Fixed assets	1 672	1 635
Receivables	3 680	2 686
Cash Positions	24 229	31 844
Securities	23 895	31 759
Cash at banks	334	85
TOTAL ASSETS	29 581	36 165

LIABILITIES	2006	2007
Working Capital	713	673
Reserve on Account for Closed Prog.	617	621
Grants received for building works	807	723
Dedicated Funds	1 160	1 305
Provisions	4 725	5 353
Payables	7 250	7 817
Received in advance and committed	14 345	19 654
Final Balance	-36	19
TOTAL LIABILITIES	29 581	36 165

Statutory Accounts

Table 4: Income and Expenditure Statement (e)

	2006	2007
Operating revenues		
Contributions	41 201 180	43 983 114
Use of provisions	27 000	82 835
TOTAL OPERATING REVENUES	41 228 180	44 065 949
Operating expenses		
Purchases	373 645	357 981
External charges	29 328 335	31 821 365
Taxes	610 175	518 724
Employment costs	6 766 148	7 698 876
Social contributions	3 065 755	3 358 517
Depreciation of fixed assets	265 774	310 937
Provisions	237 733	311 622
Other charges	173 930	180 409
TOTAL OPERATING EXPENSES	40 821 496	44 558 430
Operating earnings	406 683	-492 481
Financial income	529 398	800 434
Financial expenses	7 045	1 016
Financial contribution	522 353	799 417
Exceptional income	42 505	86 738
Exceptional expenses	4 323	27 836
Exceptional contribution	38 182	58 902
Intermediate balance	967 218	365 838
Reversal of dedicated funds	1 275 283	1 159 724
Allocation to dedicated funds	1 159 724	1 305 269
Excess of inflow	1 082 777	220 293

Table 5: Statutory Balance Sheet (e)

	ASSETS	2006	2007		
		NET	GROSS	DEPR	NET
	Intangible assets				
6	Softwares	1 302	25 465	21 993	3 472
ĒŢ					
ASS	Tangible assets	1 662 303	2 879 030	1 255 120	1 623 910
Ä					
XI:	Financial assets				
-	Guarantee deposits	8 755	7 590		7 590
	TOTAL I	1 672 360	2 912 085	1 277 113	1 634 972
	Advance payments	510 521	632 327		632 327
	Receivables				
S	Customers and related	1 442 879	1 573 825	432 863	1 140 962
SET .					
AS	Other receivables	804 146	605 899		605 899
Ł					
RE	Securities	23 894 892	31 759 184		31 759 184
ЪС					
U	Cash at bank	333 958	85 455		85 455
	Prepayments	921 981	306 588		306 588
	TOTAL II	27 908 377	34 963 277	432 863	34 530 414
	GENERAL TOTAL(I+ II)	29 580 737	37 875 362	1 709 976	36 165 386

	LIABILITIES	2006	2007
S	Working capital		
2 Z	Capital endowment	223 910	223 910
L L	Balance brought forward	4 394 176	5 473 000
NO	Current year excess of inflow over use	1 082 777	220 293
ATI	Accumulated excess of use over inflow	0	0
SCI	Reserve on account for closed programmes	618 009	621 962
SS	Investment subsidies	807 595	722 585
A	TOTAL I	7 126 467	7 261 751
PROVISIONS	Provisions for contingencies and charges	459 481	505 802
DEDICATED FUNDS	Dedicated funds	1 159 724	1 305 269
	TOTAL II	1 619 205	1 811 071
្ល	Suppliers and related accounts	2 074 101	2 206 251
BLE	Social and tax liabilities	1 845 064	2 222 323
X	Other payables	3 330 832	3 389 742
PA	Received in advance and committed	13 585 067	19 274 248
	TOTAL III	20 835 065	27 092 565
	GENERAL TOTAL (I + II + III)	29 580 737	36 165 386

Table 6: Reconciliation of the balance of the year betweenManagement and Statutory Accounts

	k€
Result in Management IES (1)	19
Provisions for Contingencies built in Management Accounts	582
Variation of anticipated overheads accounted for in Statutory Accounts	-380
Surplus in Statutory IES	221
(1) IES : Income and Expenditure Statement	

This table explains differences between the Management Accounts (which take into account some business situations not necessarily reflected in statutory terms) and the Statutory Accounts, which follow International Accounting Standards.

Other

Table 7: Scale of contributions

Country	Proposed 2008 Scale	2007 Scale
Austria	2.13	2.16
Belgium	2.56	2.58
Bulgaria	0.31	0.31
Croatia	0.39	0.33
Cyprus	0.21	0.20
Czech Republic	0.90	0.87
Denmark	2.06	2.05
Estonia	0.23	0.22
Finland	1.42	1.42
France	14.21	14.33
Germany	18.71	19.36
Greece	1.52	1.48
Hungary	0.84	0.80
Iceland	0.19	0.18
Ireland	1.50	1.48
Italy	11.74	11.64
Lithuania	0.25	0.24
Luxembourg	0.33	0.31
Netherlands	4.26	4.16
Norway	1.97	1.90
Poland	1.89	1.80
Portugal	1.41	1.36
Romania	0.64	0.56
Slovakia	0.43	0.41
Slovenia	0.42	0.37
Spain	7.22	7.06
Sweden	2.69	2.70
Switzerland	2.58	2.68
Turkey	2.19	2.02
United Kingdom	14.79	15.02
TOTAL	100.00	100.00



Human Resources

In 2007 the ESF took further steps to implement the Strategic Plan 2006-2010 in order to secure its position in the European Research Area (ERA). This implementation process would not have succeeded without the full support and commitment of its staff. Thus, at the ESF the impact and value of its staff are constantly being evaluated and enhanced.

The initiation of the Strategic Plan since 2006 has no doubt brought various new and challenging objectives for the organisation and its staff. But through new action plans and the smooth facilitation of on-going projects initiated by the Human Resources Unit in 2007, the ESF can demonstrate continuous improvement in terms of professionalism, high-quality science and streamlined administrative processes. In 2007 the staff training and management sessions that began in 2006 were extended to all levels of staff. ESF employees have participated in training courses designed to focus on improvements in quality, effectiveness and accountability.

Also in 2007, a further series of measures in the management of Human Resources was implemented and continue, according to the priorities defined by the Human Resources Plan published at the beginning of 2006.

These included:

- the introduction of a job structure to enable career development
- the implementation of standardised job profiles defining the responsibilities of each position and focusing on the specific competences needed for the efficient implementation of the Strategic Plan



Human Resources

- the strengthening of the performancebased management ensuring the cascading down of ESF yearly priorities at the level of each staff member in the organisation as well as the identification of development and training needs to achieve the identified objectives
- the progressive implementation of an improved recruitment strategy and the development of an attractive "Jobs" web page with the Communications Unit
- the introduction of the Induction Plan to rapidly familiarise new staff members with the operation and structure of the ESF and its interaction with the Member Organisations
- A revision of the working time agreement for the Senior Management
- The negotiation of a new performancebased salary policy.

With these measures in place Human Resources will be able to ensure that ESF possesses a high-level of professionalism, the right scientific and administrative competencies, clear definition of responsibilities to deliver organisational effectiveness, a rewarding performance-based remuneration system with competitive hiring offers, and more flexibility in employment conditions. In addition the ESF can respond effectively to an increased number of externallyfunded activities which will translate into the success of the Strategic Plan.


	2006	2007	variation 2007 / 2006
Science & science management	43.9	47.5	3.6
General Budget	13.2	14.9	1.7
Other Sources	30.7	32.6	1.9
Administrative support for Science	54.4	54.9	0.5
General Budget	21.9	21.8	-0.1
Other Sources	32.5	33.1	0.6
General administration	28.7	35.9	7.2
General Budget	20.3	21.6	1.3
Other Sources	8.4	14.3	5.9
Total ESF Staff	127.0	138.3	11.3
General Budget	55.4	58.3	2.9
Other Sources	71.6	80	8.4

Analysis of the Full Time Equivalents (FTEs) evolution for the General Budget over the period 2006 to 2007 confirms that ESF is in line with the objectives of the strategic plan of reinforcing the proportion of science staff compared to science support staff. Staff increase in General Administration corresponds to the completion of necessary competences in Human Resources and Finance functions. The FTE evolution funded from other sources of funding grew in coherence with the increase in responsibilities ESF has developed in the management of external contracts.

Communications

Effective communication is crucial to the success of ESF fulfilling its missions – 1) to advance European research – and 2) to explore new directions for research at the European level.

As mentioned in the 2006-2010 Strategic Plan, the role of communication is the key to the implementation of the European Science Foundation's strategy. In order to ensure high-quality outreach, all communication adheres to the ESF Communication Plan and follows the rules of clarity, consistency, the appropriate tone and appeal, credibility as well as openness.

Since the beginning of 2007, the ESF's Communications Unit has embarked on a series of initiatives to facilitate the two-way communication channels that are essential to fulfilling these missions.

One of these channels is the establishment of a forum for the Member Organisations' communications departments to discuss their challenges and ideas, and to work together for their common goals. As a kick-off, the first communications network meeting took place in October 2007 in Strasbourg.

A range of communication tools and issues were discussed during the two-day meeting – from how we could take advantage of the current wave of social media tools such as blogs and online social networks, via the analysis of effective web communications, to ways of reaching out to our targeted audiences. The Member Organisations' representatives agreed to participate in a few pilot projects - a sign of commitment for cementing a long-term working relationship. In order to promote researcher-led scale and scope of European science, the ESF Member Organisations, the science community and the policy makers, which are the ESF's primary audience, have been receiving tailor-made information from the ESF Communications Unit this past year – a continued effort to keep them updated and informed on the organisation's activities and its development.

In a effort to raise the 34-year-old Foundation's public profile, the ESF Communications Unit has also been utilising a series of media tools such as a new web site with novel designs and functionality. Since the launch of the web site in March 2007, the number of unique visitors has increased from 50,000 to 80,000 during the period July 2006 to July 2007.

Also in 2007, the Communications Unit has significantly boosted the number of press outputs to inform and highlight the works of the Foundation and its Member Organisations. The number of press releases, which include mostly scientific stories resulting from the cooperation of the science community, has more than doubled in 2007 - with about 110 of them distributed in 2007 compared to 45 in 2006. As a result of this upsurge of press outputs, media coverage on the ESF and its related activities have risen tremendously - with 1,190 press citations recorded in 2007 compared to 450 in the previous year. Meanwhile in 2007, the number of publications including brochures, leaflets, scientific reports, position papers and briefings, newsletters, and annual report has almost doubled to 90.



In 2007, the Communications Unit was present at numerous scientific conferences, thus contributing to the visibility of the ESF and disseminating knowledge on the role and activities of the Foundation. Next to providing information at ESF booths, outcomes of many conferences were circulated via various channels. Among the major events visited and covered was the European Geosciences Union General Assembly. During 2007, the Communications Unit has also emphasized internal communication by engaging ESF staff in contributing and participating in the production of the internal newsletter. In addition, the unit has facilitated a series of media trainings for the heads of units from various science domains to learn how to effectively get their respective science programmes and policies communicated to the public.

As for 2008, the ESF Communications Unit has already started venturing its efforts into additional projects for the purpose of further strengthening the communication of ESF and its Member Organisations' works. These projects include a new Intranet (a one-stop shop for staff and members to seek background and updated information) and a photo gallery/image bank that will give access to a more comprehensive archive on various science-related pictures that are useful to explain different science topics.

All the activities undertaken mark significant and important steps towards effectively communicating and interacting with Member Organisations, the scientific community, policy makers, other stakeholders and ESF employees as well as the media.

COST

The European Cooperation in Science and Technology (COST), an intergovernmental initiative, exists to foster cooperation between nationally-funded research activities. The main objective of COST is to stimulate innovative and interdisciplinary scientific networks in Europe.

COST, with 35 member states in Europe, has a membership which extends beyond the European Union, including Israel. On the basis of mutual benefit, COST also allows participation from institutions in non-COST Countries and from Non-Governmental Organisations (NGOs). There are no geographical restrictions on ad-hoc participation in COST's activities. COST has one of the largest frameworks for research cooperation in Europe, supporting more than 30 000 scientists and complements the European Union's Framework Programme.

A continuous COST Open Call to attract the best proposals for new COST cooperation networks (COST Actions) is used. The continuous call is thematically open and proposals playing a precursor role for other European programmes and/or initiated by early-stage researchers are particularly welcome.

Maintaining the "bottom-up" principle, proposers are invited to locate their topic within one of the nine scientific COST Domains. Interdisciplinary proposals not fitting readily into a single Domain are also welcome. Although COST does not fund research projects themselves, it finances the networking of nationally funded activities in supporting meetings, conferences, short-term scientific exchanges and outreach activities. Proposals are assessed in two stages. Preliminary Proposals, consisting of a brief overview and an impact description, are checked for eligibility first and assessed. The top ranked Preliminary Proposals are then invited to submit a Full Proposal which is peer reviewed according to the published assessment criteria.

The European Science Foundation is the implementing agent for COST. It established the COST Office, based in Brussels, to execute the decisions of the Committee of Senior Officials (CSO), the decisionmaking body of COST. The CSO is constituted by representatives of all 35 COST countries and is presided by Professor Francesco Fedi, who was re-elected in March 2007 for a period of three years.

The COST Office also supports the COST Actions and the respective nine Domain Committees in the fulfilment of their objectives and carries out a number of strategic and outreach activities.

During 2007, COST:

- implemented a well-defined restructuring of the COST Office to accommodate the operational and administrative consequences of the expanded scope of activities and the subsequent increase in budget compared to the previous contract under FP6
- held two collection dates, in March and September respectively, which resulted in a total of 881 Preliminary Proposals. In addition, 155 Full Proposals were assessed to become 50 new COST Actions
- supported the networking of scientists involved in COST Actions by funding meetings with a total of some 29 000

participants and reimbursed scientists from the 200 running COST Actions

- supported Short-Term Scientific Missions (exchange visits) allowing COST Action members, in particular early stage researchers, to gain experiences in other participating institutions
- enhanced its cooperation with institutions from non-COST countries and launched two pilot schemes with Australia and New Zealand as an excellent example of how schemes based on mutual benefit and reciprocal funding are a simple means to facilitate networking of national research projects on the global scale
- provided a range of strategic activities through synergy activities conducted by the COST Actions as well as through the COST Office. Strategic activities are exploratory in nature and are either COSTspecific or established in cooperation with other ERA actors such as ESF or EUREKA

- continued to implement the new COST Grant System, a web-based project management tool for COST Actions
- launched communications activities to increase COST's visibility as a contribution towards the development of the COST Outreach strategy which was approved in March 2008.

For more information about COST, please visit www.cost.esf.org



ESF Structure



ESF Member Organisations in 2007

75 Member Organisations in 30 countries

Austria

Fonds zur Förderung der wissenschaftlichen Forschung in Österreich (FWF) Austrian Science Research Fund

Österreichische Akademie der Wissenschaften (ÖAW) Austrian Academy of Sciences

Belgium

Fonds National de la Recherche Scientifique (FNRS) National Fund for Scientific Research

Fonds voor Wetenschappelijk Onderzoek-Vlaanderen (FWO) Fund for Scientific Research - Flanders

Bulgaria

Българска академия на науките (BAS) Bulgarian Academy of Sciences

Научни изследвания National Science Fund of Bulgaria

Croatia

Hrvatska akademija znanosti i umjetnosti (HAZU) Croatian Academy of Sciences and Arts

Cyprus

Ίδουμα Ποοώθησης Έοευνας (RPF) Cyprus Research Promotion Foundation

Czech Republic

Akademie ved Ceské republiky (ASCR) Academy of Sciences of the Czech Republic

Grantová agentura Ceské republiky (GACR) Czech Science Foundation

Denmark

Danmarks Grundforskningsfonden (DG) Danish National Research Foundation Det Kongelige Danske Videnskabernes Selskab Royal Danish Academy of Sciences and Letters

Forskningsrådet for Kultur og Kommunikation (FKK) Humanities Research Council

Forskningsrådet for Sundhet og Sygdom (FSS) Medical Science Research Council

Forskningsrådet for Natur og Univers (FNU) Natural Science Research Council

Forskningsrådet for Samfund og Erhverv (FSE) Social Science Research Council

Forskningsrådet for Teknik og Produktion (FTP) Danish Research Council for Technolgy and Production

The secretarial functions for all five Danish research councils are assumed by: Forsknings- og Innovationsstyrelsen (FIST) Danish Agency for Science, Technology and Innovation

Estonia Eesti Teaduste Akadeemia Estonian Academy of Sciences

Eesti Teadusfond Estonian Science Foundation

Finland

Suomen Akatemia/Finlands Akademi Academy of Finland

Suomen Tiedeakatemiain Valtuuskunta/ Delegationen för Vetenskapsakademierna i Finland Delegation of the Finnish Academies of Science and Letters



France

Centre National de la Recherche Scientifique (CNRS) National Centre for Scientific Research

Commissariat à l'Énergie Atomique/Direction des Sciences de la Matière (CEA/DSM) Materials Sciences Division of the Atomic Energy Commission

Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER) French Research Institute for Exploitation of the Sea

Institut National de la Recherche Agronomique (INRA) National Institute for Agricultural Research

Institut de Recherche pour le Développement (IRD) National Institute for Development

Germany

Deutsche Forschungsgemeinschaft (DFG) German Research Foundation

Helmholtz-Gemeinschaft Deutscher Forschungszentren (HGF) Helmholtz Association of German Research Centres

Max-Planck-Gesellschaft (MPG)

Max Planck Society

Union der deutschen Akademien der Wissenschaften

Union of the German Academies of Sciences and Humanities

Greece

EONIKO ΙΔΡΥΜΑ ΕΡΕΥΝΩΝ (NHRF) National Hellenic Research Foundation

Ίδουμα Τεχνολογίας και Έρευνας (FORTH) Foundation for Research and Technology – Hellas

Hungary

Magyar Tudományos Akadémia (MTA) Hungarian Academy of Sciences

Országos Tudományos Kutatási Alapprogramok (OTKA) Hungarian Scientific Research Fund

Iceland

RANNIS Icelandic Centre for Research

Ireland

Am Chomhairle um Thaighde sna Dána agus sna hEolaíochtaí Sóisialta (IRCHSS) Irish Research Council for the Humanities and Social Sciences Enterprise Ireland

Health Research Board (HRB)

Irish Research Council for Sciences, Engineering and Technology (IRCSET)

Italy

Consiglio Nazionale delle Ricerche – Istituto Nazionale per la Fisica de la Materia (CNR-INFM) National Research Council

Istituto Nazionale di Fisica Nucleare (INFN) National Institute for Nuclear Physics

Lithuania

Lietuvos Valstybinis Mokslo Ir Studiju Fondas Lithuanian State Science and Studies Foundation

Luxembourg

Fonds National de la Recherche (FNR) National Research Fund

The Netherlands

Koninklijke Nederlandse Akademie van Wetenschappen (KNAW) Royal Netherlands Academy of Arts and Sciences

Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO) Netherlands Organisation for Scientific Research

Norway

Det Norske Videnskaps-Akademi Norwegian Academy of Science and Letters

Norges Forskningsråd Research Council of Norway

Poland

Polska Akademia Nauk (PAN) Polish Academy of Sciences

Portugal

Academia das Ciências de Lisboa Lisbon Academy of Sciences

Fundação para a Ciência e a Tecnologia (FCT) Foundation for Science and Technology Gabinete de Relações Internacionais da Ciência e do Ensino Superior (GRICES) Portuguese International Relations Cabinet for Science and Higher Education

Romania

Consiliul National al Cercetarii Stiintifice din Invatamantul Superior (CNCSIS) National University Research Council

Slovak republic

Slovenská Akadémia Vied (SAV) Slovak Academy of Sciences

Agentúra na podporu vyskumu a vyvoja (APVV) Slovak Research and Development Agency

Slovenia

Slovenska Akademija Znanosti in Umetnosti (SAZU) Slovenian Academy of Sciences and Arts

Slovenska Znanstvena Fundacija (SZF) Slovenian Science Foundation

Spain

Consejo Superior de Investigaciones Científicas (CSIC) Council for Scientific Research

Comisión Interministerial de Ciencia y Tecnología (CICYT) Interministerial Committee on Science and Technology

Sweden

Forskningsrådet för arbetsliv och socialvetenskap (FAS) Swedish Council for Working Life and Social Research

Forskningsrådet för miljö, areella näringar och samhällsbyggande (FORMAS) Swedish Council for Environment, Agricultural Sciences and Spatial Planning

Kungliga Vetenskapsakademien Royal Swedish Academy of Sciences

Kungliga Vitterhets Historie och Antikvitets Akademien Royal Academy of Letters, History and Antiquities

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Swedish Research Council

Vinnova Swedish Agency for Innovation Systems

Switzerland

Rat der schweizerischen wissenschaftlichen Akademien (CASS) Council of the Swiss Scientific Academies

Schweizerischer Nationalfonds (SNF) Swiss National Science Foundation

Turkey

Türkiye Bilimsel ve Teknolojik Arastırma Kurumu (TÜBITAK) The Scientific and Technological Research Council of Turkey

United Kingdom

Arts and Humanities Research Council (AHRC)

Biotechnology and Biological Sciences Research Council (BBSRC)

The British Academy

Economic and Social Research Council (ESRC)

Engineering and Physical Sciences Research Council (EPSRC)

Medical Research Council (MRC)

Natural Environment Research Council (NERC)

Science and Technology Facilities Council (STFC)

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as at 31 December 2006

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