# JROPEAN<br/>IENCEAnnual Report<br/>2006SCIENCE AGENDAS FOR EUROPE

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### This is the European Science Foundation

#### **Mission Statement**

The European Science Foundation provides a common platform for its Member Organisations in order to:

• Advance European research

• Explore new directions for research at the European level

Through its activities, the European Science Foundation serves the needs of the European research community in a global context.

#### **Values**

The European Science Foundation's mission is guided by shared values that characterise its specific organisational culture. These values are :

- **Excellence:** the gatekeeper criterion for all scientific activities; it will also drive the management philosophy and operating procedures;
- **Openness:** to all scientists and disciplines; no barriers between disciplines; open sharing of results; transparency to stakeholders and partners;
- Responsiveness: in its procedures and structure;
- Pan-European: rising above national interests to the benefits of science in the whole of Europe;
- Ethical awareness and human values: sensitive to societal and ethical considerations in all its activities; attention to gender aspects.

4 ESF Annual Report 2006

### Contents

2006 Highlights	7
Ian Halliday, ESF President	8
Bertil Andersson, ESF Chief Executive	10
Highlights from the 2006 General Assembly	12
European Latsis Prize	15
EURYI / ESF Fortifies its Foundation	16
EuroBioFund	17
Prague Peer Review Conference	18
Out of Europe	19
ESF's new logo / EMRC Chair	20
ESF in the news	21
EUROCORES Programmes	22
Exploratory Workshops	34
Forward Looks	39
ESF Policy Briefings	41
ESF Research Conferences	42
Research Networking Programmes	43
ESF Member Organisations in 2006	50
ESF Governing Bodies and Committees Membership	56
COST	71
Finance	72
Human Resources	76
Publications in 2006	80
Photo credits	86









### **2006 Highlights**

2006 marks another milestone for the ESF in its 32 year-history. It was a year for the actual implementation of the much talked about Strategic Plan 2006 - 2010. From Talking to Doing. See page 10 for ESF Chief Executive Bertil Andersson's message.

#### **Changes within the ESF**

It was also a year of major changes for the organisation with its General Assembly taking the decisions to discontinue the Executive Board, make the Governing Council the meeting place for the leadership of national research organisations and to establish an independent Science Advisory Board. For more information on the 2006 General Assembly's highlights see page 12.

#### Further ESF – COST Synergy

In 2006, ESF has further cemented its on-going working relationship with the European Cooperation in Science and Technology (COST). Both parties have agreed ESF to act as the implementing agent for the office of COST during the seventh Framework Programme. See page 71 for more COST highlights.

### 2006 European Latsis Prize – Social & Migration issues

The ESF awarded 2006's European Latsis Prize to Professor Rainer Bauböck from the Institute of European Integration Research in Austria for his contribution and in-depth research on migration issues. See page 15.

#### Life Science, Funders convergence -EuroBioFund's 1st annual EuroBioForum

The 1st annual EuroBioFund's EuroBioForum was held in Helsinki in December 2006, an annual event that aims to match cutting-edge pan-European research with life sciences funders. See page 17.

#### The Evaluation of Science – Prague Peerreview Conference

Some 150 experts from the European scientific community and institutions throughout the world (including China, Japan and Korea) convened in Prague in October 2006 to discuss the growing need for access to the best quality expert reviewers. See page 18.

#### Out of Europe – ESF's Japanese link

In another sign of how ESF's activities are breaking geographic barriers, the organisation signed an extended Memorandum of Understanding with the Japan Society for the Promotion of Science (JSPS) in May 2006 for the facilitation of interaction between young and experienced researchers from both continents. See page 19.

### New Research Conferences in a diverse range of disciplines

In 2006, ESF organised 17 research conferences and two summer schools with 11 partners. See page 42.

### **President's Message**



Ian Halliday • President

Although engaged with the ESF for many years as a member of PESC (Standing Committee for the Physical and Engineering Sciences) and the Governing Council this has been my first year as President. This has meant a steep learning curve of people, committees, organisations and far-flung sciences. I would like to start by thanking everyone for their patience, goodwill in explanation and occasional tough arguments about ESF; its aims and indeed, budget.

2006 was a year where the alignment of ESF structures with the Strategy document produced in 2005 took lead position. There was widespread consultation and discussion about the governance of the ESF. In broad-brush terms there were three real issues: the membership, the way in which Member Organisations could feel confident that they had influence on the programmes of ESF and finally the connections between the Governing Council and the Standing Committees needed improvement.

My first real surprise as President was that the membership issue turned out to be non controversial. Professor Reijo Vihko (the former president of EUROHORCs and the former head of the Academy of Finland) traversed Europe taking soundings and integrating the Member Organisation inputs and reported a general wish that the membership remained inclusive. This was verified at a member consultation meeting. I thank Reijo for his great efforts in this area.

The other two issues could be summarised under the heading of integrating ESF and making it a more coherent and transparent body. I think the main effect of the Governance reforms will be to improve the transparency and level of trust between the different parts of the ESF: Member Organisations, Office and Scientists. The major change will only come about if the three parts engage seriously with each others agendas.

Here I would like to thank all concerned for their inputs, arguments and, in the last resort, good humour as we attempted to square the circle of the individual desires of 78.

The European science funding scene is changing rapidly. The advent of the ERC will change many perspectives. The decision to fund early stage researchers has had the effect of terminating the EURYI scheme so carefully nurtured by EUROHORCs and the ESF. Here I would like to pick out the Chairs of the ESF peer review committees for special thanks. (Dr. Tim Hunt, Professor Jane Grimson, Professor Frank Gannon, Dr. Catherine Cesarsky, Dr. Wim Blockmans, Professor Bengt Norden and Dr. Kai Simons). They and their committees set a standard of peer review and general engagement that was a model to Europe. The growing prevalence of ERA-NET and ERA-NET+ schemes will pose a challenge to national structures. This too is an area where various ESF committees have played a strong role.

Thus, in a Europe of change, a major question for ESF has been to place itself in a distinctive position where both its strengths and weaknesses are taken into account. In the 2005 Strategic Plan great emphasis has been placed by our members on the policy role for ESF. One manifestation of this would be to produce effective and influential Forward Looks. In this context I was very impressed by the way that the Nanomedecine Forward Look influenced Commission policy and various national debates. This is an area where we particularly need engagement by Member Organisations. The best scientists will only engage and carry out the hard graft necessary for a good Forward Look if they believe that the effort will produce results in influencing policy and finance.

As well as committees and compromises ESF also brings moments of exhilaration and intellectual stimulation: hearing Professor Rainer Bauböck of explain his European Latsis Prize work on Immigration and Social Cohesion in Modern Societies (See page 15), seeing EMRC Chair Professor Liselotte Højgaard's amazing department of Clinical Physiology, Nuclear Medicine & PET at Copenhagen's Rigshospitalet with the tight alignment of nuclear physics, radiation treatment, PET scans and IT systems all integrated to deliver best treatment, discussing all the tensions of science funding at the Max Planck Society's Ringberg symposium, being provoked by Commissioner Janez Potočnik to think radical thoughts about European Science beyond Framework 7 and so on.

At the end of the year we heard that our CEO Bertil Andersson would be leaving us. We will celebrate Bertil's total ESF achievements in 2007 but I cannot leave this Annual Report without acknowledging the help Bertil has given me in my first year. His energy, enthusiasm and commitment have shone through. His astonishing achievements collecting support for the ESF conference scheme and the EuroBioFund are noteworthy.

#### **Professor Ian Halliday**

President

### 2006: From Talking to Doing



Bertil Andersson • Chief Executive

2006 was a year to put the *Strategic Plan 2006-2010* to action. In other words, we went from *Talking to Doing*. It was also a year to change the governing structure and a year to deal with the complicated membership issues that have been lurking in the back for guite some times. We have managed nevertheless.

The emphasis of the *Strategic Plan 2006-2010* is to be more aligned with the Member Organisations (MOs). That is already been done. While being more aligned with the MOs there is also the demand of the MOs to step out and to ask things from ESF – to be an active owner of the ESF. Otherwise this synergy between the two will not work. So ESF has to do its part and the MOs have to do theirs.

The changed governance is quite an impressive task considering the complexity of our memberships. ESF now has a governing structure that is simpler and more streamlined and as I see it, more operational. This change is extremely important for an organisation with the size and scope such as the ESF. I hope this would make ESF even more action oriented in order to take quicker decisions.

For this past year we have successfully settled the contract with COST (The European Cooperation in Science and Technology) – It has been possible to get everything paid for by the 7<sup>th</sup> Framework Programme for the new COST contract – with €210 million guarantee and the possibility to go up to €250 million. This is definitely a success story for the ESF as back in 2003 when we were taking on COST many were skeptical about whether we have the muscles to manage such vast undertaking – in both the administrative and the academic sides. Professor Francesco Fedi (President of the COST Committee of Senior Officials (CSO) and the CSOs), implemented reforms such as the new domain structure and the new procedures that would ensure higher quality of the COST actions. We have also managed to run COST office from an administrative point of view despite the extreme complexity of the contract.

ESF is now much bigger in size with the addition of COST. And we now have an office in Brussels with the relocation of our Conferences Unit there in 2006, situated besides the COST office. But rather than just being bigger I hope that ESF is actually better. ESF is strived to become more client-oriented. It is important that ESF actually is a service to the Member Organisations and to the European science community.

Also in 2006 we have raised the level of awareness on peer review quite considerably after our event in Prague with more than 150 experts from the European scientific community and institutions throughout the world (including China, Japan and Korea). A major concern addressed in the discussions was the growing need for access to the best quality expert reviewers. Now many MOs have turned to us to seek to do European peer review for them. In my mind, that could be a task for the ESF to take on in the future. (See page 18).

Although the European Commission has a lot of money within its Framework Programmes, which maybe being perceived as dominating the scene, independent organisations such as the ESF still have an instrumental role in taking initiatives for the ever-changing European research funding scene. ESF's Member Organisations from 30 European countries, be they research funding agencies, research performing organisations or learned societies, with a total annual budget for over €20 billion are responsible for a substantial part of research funding at national level.

On a more personal note for my decision to leave the organisation I am going to miss the wine and the food in France and I am going to miss Strasbourg and the region around it. As for ESF most of all I am going to miss the people of the organisations, the scientists, the science policy makers from Europe and the rest of the world.

#### **Professor Bertil Andersson**

Chief Executive

Bertil Andersson left the ESF to take up the post of Rector of the Nanyang Technological University, Singapore, on 1st April 2007.

### **Highlights from the 2006 General Assembly**

### A New Dawn for the ESF

Longevity is something that every organisation strives to have. To achieve this goal merely having the right talents is not enough. Changing with the time is also essential.

For an organisation such as the ESF, which covers all aspects of science, making changes requires deep thinking, as any decision that it makes could significantly impact the research funding of Europe. The ESF's Member Organisations, which comprise of most national research funding agencies and research performing organisations from 30 European countries, are responsible for the delegation of about €20 billion of European research funding.

The 32<sup>nd</sup> annual General Assembly of the ESF in December 2006 cast approving votes on a series of measures that will ensure ESF's status as a highlevel policy interaction platform for its Member Organisations. These measures also aim to safeguard and develop science instruments for the organisation that has devoted itself to promoting excellence in European science since 1974. More importantly, these amendments are purposefully allowing wider participation from the ESF's Member Organisations. In other words – enabling them to become "an active owner of the ESF."

A number of milestone decisions were made during the Assembly. They are related to a number of important changes regarding the governance of the ESF and its scientific committee structure. One of them is the restructuring of the Governing Council, allowing only the Heads of Organisations within the ESF Membership to participate. The Assembly also passed a vote to simplify the Governance by discontinuing the Executive Board.

"We are witnessing a time of great change in Europe with the advent of the European Research Council (ERC). What we need to be asking ourselves here at the ESF is how do we improve the interaction between scientists and governance mechanisms?" ESF President Ian Halliday commented. "External pressures are not declining. They are becoming more and more visible. We see this as both a setback and as a challenge."

The Council will now decide on which areas would benefit from a Forward Look; which topics for EUROCORES (European Collaborative Research Programmes) are of strategic importance to them and to the scientific community; in which areas Member Organisations should come together to develop joint actions or strategies, for example in peer review, research infrastructure or research integrity.

#### **Composition of the ESF Governing Council**

The Governing Council now consists of (i) the President of the Foundation, (ii) two Vice-Presidents, and (iii) a such a number of members to allow each National Group of Member Organisations to occupy one seat. Such members will be appointed by National Groups of Member Organisations and will be Heads of organisations within the ESF membership.

#### **Science Advisory Board**

Additionally, there was an agreement among the Member Organisations for the creation of a Science Advisory Board, composed of high-level scientists to cope with the demands of increasing interdisclipinarity within science, which will also play a key role in overseeing the quality of ESF's scientific procedures. It has been decided that the Board will not be involved in the governance issues.

The Science Advisory Board will advise the Chief Executive in the following areas:

- Overseeing overall science quality of ESF's activities, including peer review, and safeguarding interdisciplinarity of the instruments
- Scientific quality and relevance with regard to the key instruments such as Forward Looks, EUROCORES and ESF Research Conferences



The ESF General Assembly took place on 30 November - 1 December 2007 at the European Parliament building in Strasbourg

• High level scientific advice to the CEO: ideas for new science actions and instruments; analyses of the evolving European and global science and science policy context.

### Assembly 2007 Programme Committee and hosting of Assembly 2008

The decision was taken to change the format of the Assembly, extending the strategic element and focusing debate on European and global science and science policy issues. A small Programme Committee for the 2007 Assembly will be established.

It was also decided that the Assembly could be hosted on a rotational basis by Member Organisations. Therefore expressions of interest to host the 2008 Assembly were invited. The Assembly normally takes place in late November/early December.

### New membership policy of the European Science Foundation

In an effort to strengthen its links with the different groups of possible Member Organisations the ESF adopted an inclusive policy with membership from research funding organisations, research performing organisations and academies, both with research institutes and learned societies, operating nation wide or at the European level, with no differentiation in membership rights. This new policy will strengthen ESF's role as the European platform for policy debate and action by its members in investigator driven research. Also the possibility was opened for science organisations at a European level, such as the ERC, to join the ESF membership.

#### New leadership for 2007

During the Assembly Member Organisations have voiced their support for Dr. John Marks to take over the position of Chief Executive starting from 1 April 2007 after the departure of Professor Bertil Andersson on 31 March 2007. Professor Andersson took up the post of Rector of the Nanyang Technological University of Singapore. Marks will be in place as the Chief Executive until a replacement will take office.

### 2006 Highlights



European Latsis Prize winner, Professor Rainer Bauböck, addressing the ESF Assembly



Professor Rainer Bauböck receives the European Latsis Prize from ESF President Ian Halliday

### 2006 European Latsis Prize Immigration and Social Cohesion in Modern Societies

#### ESF awards 2006 European Latsis Prize to Professor Rainer Bauböck, Visionary in Migration Issues.

The European Science Foundation awarded 2006's European Latsis Prize to Professor Rainer Bauböck from the Institute of European Integration Research in Austria for his contribution and in-depth research on migration issues.

The European Latsis Prize, valued at 100,000 Swiss francs (€65,000) is financed by the Genevabased 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. The chosen field for the 2006 prize was Immigration and Social Cohesion in Modern Societies.

Professor Bauböck received the European Latsis Prize in a ceremony held at ESF's annual General Assembly in Strasbourg on 30 November 2006. "How I feel? On a scale from one to 10, I am at 11," he commented afterward.

Despite the public policy debate in which migration issues are constantly embroiled, the studying of the issue is often at the margin of scientific disciplines, according to Professor Bauböck. Devoting the European Latsis Prize to this theme contributes to strengthening its recognition as an academic field.

"Since 1999, the European Latsis Prize has rewarded researchers who have made outstanding progress in European research. Professor Bauböck is at the forefront of the migration field and his contribution to this area is unprecedented," said ESF President lan Halliday, who presented the prize. "Professor Bauböck's works have not only affected how European societies relate to each other they have also become a critical but constructive voice in many debates on immigrations polices. The European Latsis Prize ties very much into ESF's mission. It shows how committed we are to encouraging science in a very wide range of fields." Bauböck, who is a political scientist and senior researcher at the Austrian Academy of Sciences' Institute for European Integration Research, acknowledged the European Latsis Prize is by far the "strongest recognition" for his work. "I suspect that people who choose an academic career are generally driven by a strong desire for recognition by their peers. This is what the European Latsis Prize means to me personally," said Bauböck.

Bauböck is also the vice-chair of the Commission for Migration and Integration Research at the Academy of Sciences in Austria. His research interests are in normative political theory and comparative research on democratic citizenship, European integration, migration, nationalism and minority rights.

His works have been focusing on the question of how migration challenges and changes conceptions and boundaries of democratic citizenship. His effort has combined comparative research of migrants' legal status and rights with a political theory of citizenship and the boundaries of political community.

From 1986 to 1999 Bauböck was assistant professor at the Institute for Advanced Studies, Vienna. He has taught at the Universities of Vienna and Innsbruck and is a recurrent visiting professor at Central European University Budapest. He has also been a visiting academic at Yale University, the University Pompeu Fabra in Barcelona, the University of Bristol, University of Malmö, the Institute for Advanced Study, Princeton, and the University of Warwick. In 2003-2005, Rainer Bauböck was president of the Austrian Association of Political Science.

Bauböck started a new position at the European University Institute in Florence in January 2007 where he was offered a chair in social and political theory.

### 2006 Highlights



ESF's newly refurbished Marnésia building

### European Science Foundation fortifies its foundation

The European Science Foundation has further cemented its more than threedecade old foundation at the City of Strasbourg by refurbishing its main building in 2006.

Nobel Laureate Jean-Marie Lehn, the Mayor of Strasbourg Mme Fabienne Keller and the President of the Urban Community of Strasbourg, M. Robert Grossmann were all there to witness the official inauguration of the ESF's newly refurbished Marnésia building in a ceremony held on 22 September 2006. Thanks to the combined contributions of the City of Strasbourg, the Urban Community of Strasbourg, the Regional Council, and the Departmental Council, the ESF now boasts state-of-the-art meeting rooms, sleek and modern office facilities, full disability access and a recently re-laid garden. In addition, since 2004, a second building was made available to the ESF on Rue du Parchemin.

The European Science Foundation is proud to continue its collaboration and positive interaction with the City of Strasbourg which has supported us since our inception in 1974," commented ESF Chief

Executive Professor Bertil Andersson at the ceremony.

"With its deserved reputation as the Capital of Europe, Strasbourg is the ideal location for an organisation such as ours whose mission is to promote pan-European co-operation in all aspects of scientific endeavour".

The ESF's story began since 1974, the former head of Finance Jean-Pierre Roth – who also attended the ceremony, made the case for an organisation that would act as a catalyst for the advancement of European science by bringing together the continent's leading scientists and funding agencies.

Thanks to the largesse of former Strasbourg Mayor Pierre Pflimlin, the dream soon became a reality. Under his direction, the Municipality of Strasbourg donated part of the historic Marnésia building for the nascent scientific organisation to occupy rentfree, alongside offices for the City of Strasbourg.



2006 : EURYI awardees

### 2006 European Young Investigator Award (EURYI)

At the 3<sup>rd</sup> European Young Investigator Award (EURYI) Ceremony, 25 young researchers from

across Europe met in the Czech Republic to receive a diploma and a guarantee of project funding of as much as  $\notin$ 1.25 million for their ideas which have the potential to have a significant impact on our everyday lives.

The brightest and most creative young minds in science were gathering in Prague

on 13 October 2006 to receive recognition for their untapped potential in creating the European science's future and for their breakthrough research ranging from voice recognition applications to the world's smallest in vivo biofuel cell.

EURYI, which is coordinated by the ESF on behalf of the European Heads of Research Councils (EUROHORCs), awarded these young researchers €897,500 to €1,250,000, comparable in size to the Nobel Prize. The youngest researcher from the group is 30 years of age.

"Cultivating ground-breaking scientific discoveries in Europe has always been the goal for the ESF, and EURYI has fittingly become the perfect vehicle to realise it," commented Professor Bertil Andersson, Chief Executive of the ESF. "The Award also signifies what these young researchers could possibly accomplish with their scientific careers."

The First Call of the EURYI scheme was launched in September 2003, and resulted in 25 awards being made in July 2004. A further 25 awards were made in 2005 after the Second Call.

The list of this 2006's awardees includes researchers who will be based in 11 countries.

The EURYI Awards are offered by 20 European national research organisations 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 has been intense, with 457 applications received for 2006.

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 highest-level scientific panels managed by the ESF.

EURYI Awardees were being presented with their diploma by the Nobel Laureate Torsten Wiesel. *Pictures: www.scienceundmedia.de/EURYI2006/* 

### EuroBioFund -1<sup>st</sup> Annual EuroBioForum

To match cutting-edge pan-European research with life sciences funders, EuroBioFund, which is supported by the ESF and the European Commission, organised its first annual EuroBioForum in Helsinki in December 2006.

Professor Bertil Andersson, Chief Executive of the ESF, called the two-day event that took place on 14-15 December in the capital city of Finland "an experiment" to bring together researchers and various types of funders from across Europe. High-level representatives from public/private funding foundations, research funding organisations, national innovation agencies, academies, intergovernmental agencies and the bioscience

industry participated in the event which was kicked off by the Finnish Minister of Social Affairs and Health, Tuula Haatainen.

"We are now setting the ball rolling and there needs to be follow-up action," Professor Andersson told the audience. The next EuroBioForum is scheduled to take place in Lisbon, Portugal in December 2007.

In his remarks about life sciences in Europe to the some 160 participants, Professor Andersson recommended there should be a higher degree of coordination between national public funders and those who are working at the European level. He also mentioned joint efforts among various types of life sciences funders and the need for a coordinated/stronger strategy for research infrastructure in Europe.

He noted that Europe needs to be more competitive with the U.S. and Asia. Currently R & D investment is fragmented among numerous funding bodies across Europe. It continues to lag behind Asia and the US in research funding, a fact that many observers warn is crippling the region's economic competitiveness. Efforts to correct this imbalance are urgently needed. EuroBioForum is expected to increase Europe's scientific presence and stimulate research and technology development in the life sciences field.

During the conference, 10 research consortia presented their pioneering research programmes on topics ranging from the production of hydrogen via artificial photosynthesis (SOLAR-H) to learning how to survive without water (DryLife).

Besides match making between funders and researchers, EuroBioForum has also invited experts to discuss opportunities and challenges for the life science field. One of the topics of discussion was the promotion of Systems Biology in Europe.

Professor Rudolf Aebersold from the Institute for Molecular Systems Biology, ETH Zurich told participants that the field of System Biology is in need of new data collection technologies if it wants to deliver its promise to society. The field is expected to generate "great opportunities" for researchers, Aebersold added. On the other hand, Adriano Henney, the Director of Global Discovery Enabling Capabilities & Science at AstraZeneca, pointed out that there are still a lot of challenges ahead for the Systems Biology field such as the rising cost of R&D, the challenging of regulatory environment and the fierce competitive market for drugs development. Wouter Spek, EuroBioFund Director commented "Crosslinking of networks and bridging the gap between research and public/private funders is our main goal and there is still room for improvement in Europe. This first EuroBioForum has been an interesting and stimulating two days and follow-up actions to develop several of the research consortia presented have already been planned. We are definitely going to facilitate this in 2007."

EuroBioFund, which was launched in June 2006, is aimed "to promote and coordinate interaction among European life sciences researchers and funders."

### Prague Peer Review Conference -

The Quality of Science Evaluation

More than 150 experts from the European scientific community and institutions throughout the world (including China, Japan and Korea) convened in Prague on 12-13 October 2006 to analyse contemporary trends in the evaluation of research, to examine how the peer review process is understood and performed, and to consider its future modifications in response to the requirements of research in the 21st century.

This conference was also a launching event for the ESF Member Organisation Forum on Peer Review.



Some experts have raised the concern that peer review, the internationally accepted form of scientific critique, may no longer be receptive to the novel approaches that lead to valuable scientific advances.

Speaking at the two-day international conference organised by the ESF, the Czech Science Foundation (Grantová agentura České republiky, GAČR), and the European Heads of Research Councils (EUROHORCs), John O'Reilly, the Chief Executive of the U.K.'s Engineering and Physical Sciences Research Council (EPSRC) said: "The current system of peer review can at times be considered 'tyrannical' in its approach and it needs to evolve."

It was agreed that overall, peer review remains the best method of judging scientific quality both in research proposals and publications, but that its inherent subjectivity and variability can cause problems.

To remedy this, issues of harmonisation of procedures and practices; across Europe and globally; education of reviewers and research management were discussed.

To aid harmonisation, the creation of guidelines and methods of best practice to be shared throughout the research community was suggested. A document already produced by Quality Assurance Netherlands Universities setting standard evaluation protocol for public research organisations was held up as an example of such guidelines.

It was concluded that problems of the contemporary peer review need a strategic evaluation at a more conceptual level, not of a specific mechanism, but of the underlying principles and ideas.

Continuously monitoring the peer review system on which the quality of science so heavily depends will contribute to its improvement. The conference represented an effort in this direction. It helped to identify the issue faced by peer review systems today, to raise awareness of potential critical pitfalls and to exchange experiences on how these are tackled by different organisations. Concluding remarks put a great deal of focus on the opportunities that Europe has to work together. The president of the ESF, Ian Halliday, stressed that peer review could be strengthened by the provision of a platform for European countries to share scientific expertise.

"I can see a case now for all of the bids within one scientific field from across the whole of Europe being dealt with in one place at one time," he said. "This way we could share European expertise but the money would remain national. I think that this would be a suitable alternative to current European schemes which try to share common European funding."

When the conference concluded, Halliday spoke about the potential for the ESF to coordinate the new European panels that he proposed. "This is the kind of deal that we are in the position to set up to run," he said.

For the ESF, this conference plays a key role in direct engagement with their member organisations. This will continue in the form of a Member Organisation Forum on peer review, to other activities which members have already been invited to participate and contribute. Further workshops and exchange experience and develop best practices across Europe are scheduled to take place in 2007.

### Out of Europe: ESF, Japan Society for Promotion of Science sign agreement

In another sign of how ESF's activities are breaking geographic barriers, the organisation signed an extended Memorandum of Understanding with the Japan Society for the Promotion of Science (JSPS) in May 2006 for the facilitation of interaction between young

### and experienced researchers from both continents.

The memorandum has further sealed the close cooperation between the two organisations on the "Frontier Science Meeting Series for Young Researchers", which bring about 80 young researchers from both Europe and Japan together with senior scientists to debate and exchange views on key topics at the cutting edge of research.

These conferences, led by eminent researchers from Europe and Japan, normally take place each year, alternately in Europe and Japan. The document was formally signed by Professor Bertil Andersson, Chief Executive of the Foundation, and Professor Motoyuki Ono, President of JSPS.

The agreement provides for Follow-up Workshops to be held about 2 to 3 years after each conference to allow for the subject to be explored further in the light of new advances. Participation in the Followup Workshops is principally by young researchers who took part in the first conference and who can demonstrate significant progress in their research and who have, ideally, developed collaborative projects with their colleagues from the partner region/country.

The first conference, at which the first Memorandum was signed, was held at San Feliu de Guixols, Spain, in October 2003 on the topic of 'Functional Genomics: From the bench to Bioinformatics' and the Follow up Workshop was held in Kanagawa, Japan, in March 2006. The second conference in 2005, also held in Kanagawa, addressed the topic of 'Quantum Information and Quantum Physics'. In June 2006, the third meeting in the series held in Nynäshamn, Sweden, on the topic of 'Climate Change'.



### New Chair of the EMRC

#### The European Science Foundation has named Professor Liselotte Højgaard from University of Copenhagen as the Chair of the European Medical Research Councils (EMRC).

Liselotte Højgaard is Head of The Department of Clinical Physiology, Nuclear Medicine & PET Center at Rigshospitalet, and professor in Medical Technology at The University of Copenhagen. She has held various distinguished positions: she was Editor-in-Chief for the Danisk Medical Journal from 1996 to 2002, as the first woman to hold this position in the publication's long history dating back to 1837. She was the first female Editor-in-Chief being member of "The Vancouver Group" – The International Committee of Medical Journal Editors. She was until recently chair of The ESFRI Expert Group in Clinical and Translational Medical Research.

Her research interests are in pathophysiology, nuclear medicine and Positron Emission Tomography (PET). Professor Højgaard is a widely published author, and a well known international key-note speaker at congresses and scientific societies on PET and oncology. Her work has been covered in some 140 peer review publications.

The aim of the new EMRC Chair is to create the "best R&D set-ups" in Europe. This will stop the outflow of talented scientists from Europe. She is the advocacy of inter disciplinary collaborations; and will work with the newly established European Research Council (ERC) to promote and to achieve excellence in European medical research.

Professor Højgaard started her position in September 2006.



### European Science Foundation adopts new logo for increased visibility

The European Science Foundation (ESF) unveiled its new logo in July 2006, marking a new era for the more than three-decade old organisation that devotes itself in promoting and influencing European science agenda.

The new logo was poised to reflect the organisation's values and objective to enhance its visibility in a global context, and add a recognisable identity.

"It is part of our mission to be more visible and identifiable" said Bertil Andersson, ESF Chief Executive, who launched the new logo on 18 July 2006, during the ESOF (EuroScience Open Forum) in Münich, Germany. "We do work with a large number of scientists from all over Europe; we aim at acting as a unique interface with the European scientific community, and such a renewed and progressive symbol will improve our exposure."

The European Science Foundation's mission is guided by shared values that characterise its specific organisational culture. These values are excellence, openness, responsiveness; pan-European, and ethical awareness and human values.



### ESF in the news

# Here is the breakdown of the news coverage on ESF and its related programmes in 2006.

Activities such as EURYI, Nanotechnology, Food Industry Research, Solar Energy Task Force, Research Strategy on Rheumatic Diseases, The History of Shells, Peer Review, EuroBioFund all proved to be popular with the press as reflected in the months of March, June, July and in November (see figures below).



### **EUROCORES** Programmes



The European Collaborative Research (EUROCORES) scheme allows research funding organisations in Europe and beyond to support top-class research across all scientific areas, by matching the needs articulated by the scientific community with their strategic priorities. scheme provides a flexible The framework for researchers from Europe to address questions which are best addressed in larger-scale collaborative research programmes, it allows working "at the bench" in collaborative research projects by excellent researchers from different countries and when appropriate including colleagues from, for example, the U.S. The EUROCORES scheme is currently supported by the EC Sixth Framework Programme under Contract no. ERAS-CT-2003-980409.

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 2006, the ESF Standing Committees and the EUROCORES Committee have recommended to publishing the Calls for proposals for the following 6 EUROCORES Programmes:

The themes selected are

#### Standing Committee for European Medical Research Councils (EMRC)

#### Stress and Mental Health (EuroSTRESS)

Repetitive and uncontrollable stress is known to be

a powerful risk factor for mental disorders. Whether an individual will respond adaptively or maladaptively

to a stressor is defined by his/her genetics, developmental history and the environment in adulthood. In particular traumatic experiences in early life, notably neglect or abuse during childhood, could considerably add to the risk of subsequent psychiatric illnesses including major depression, psychosis and post traumatic stress disorder. The societal and economic burden of these stress-related illnesses is enormous. Hence it is of great importance to come to a better understanding of these influences of stress on mental health.

The EUROCORES Programme EuroSTRESS will focus on two theme priorities in an interdisciplinary fashion:

- 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 on precipitation of specific psychiatric disorders are increased?

A call for outline proposals has been published and will be open until 21 May 2007. (www.esf.org/activities/eurocores/programmes/ eurostress.html)

More information: www.esf.org/eurostress

### Standing Committee for the Humanities (SCH)

## Modelling intelligent interaction – Logic in the Humanities, Social and Computational sciences (LogICCC)

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 are invited to team up. Some of these researchers may be logicians, others may 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.

The Call for Outline Proposals was launched in mid-March 2007 and the deadline for submission of outline proposals is 11 May 2007.

More information: www.esf.org/logic

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

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

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 Earthsciences, TOPO-EUROPE System has considerable societal relevance, since topography directly affects humanity as a result of secular landscape changes that have a direct bearing on environmental change and geohazards. TOPO-EUROPE intends to investigate the 4-D topography evolution of the European continent, its margins, and adjacent parts of North Africa, Asia and the Middle East. This requires a 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. We would like to thank the funding organisations who agreed to provide their support for this initiative.

More information: www.esf.org/topoeurope

### Standing Committee for the Physical and Engineering Sciences (PESC)

### 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 microand 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 nanoworld. 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 this EUROCORES Programme on 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

#### 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 realizing 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 utilizing 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 mid-March and the deadline for submission of Outline Proposals is 11 May 2007.

More information: www.esf.org/euroquasar

#### 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 the now available 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 analyze 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 the European Social Survey (ESS), the comprehensive system-level and contextual data, appropriate new methods of multilevel 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 Call for Outline Proposals was launched in mid-March and the deadline for submission of outline proposals is 14 May 2007.

More information : www.esf.org/humvib

#### Other current EUROCORES programmes

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- SF 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

(Detailed programme's description for joint activity is stated under lead unit only. Lead unit is in **BOLD**)

#### Standing Committee for European Medical Research Councils (EMRC)

#### **Development of a Stem Cell Tool Box** (EuroSTELLS)

Twenty-one research groups from 11 European countries participate in the EUROCORES Programme on Development of a Stem Cell Tool Box (EuroSTELLS). The EuroSTELLS Programme aims at generating fundamental knowledge on stem cell biology, setting up the bases for comparative analyses of stem cells of different origins, and their clinical application in the future. 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, such as the workshop on "Exploring Chromatin in Stem Cells" held in Montpellier on 22-24 January 2007, allow harmonisation of research tools, definitions and protocols in stem cell biology and increase quality assurance.

Dissemination of EuroSTELLS activities, including a discussion of developments in the stem cell field and their impact on quality of life and public health, generated wide media impact and were covered by over twenty-eight international websites.

More information: www.esf.org/eurostells

#### Pan-European Clinical Trials (ECT)

ECT is a unique programme that coordinates funding for pan-European non-commercial, investigator-driven clinical trials addressing questions that have a strong impact in 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 rare diseases and the paediatric population are funded under this programme: EURAMOS (a randomised trial of the European and American Osteosarcoma Group to optimise treatment strategies for resectable osteosarcoma based on histological response to pre-operative chemotherapy that involves 150 clinical centres in 11 European countries, U.S. and Canada) and PROFIDYS (a trial aimed at reducing bone morbidity using an oral bi-phosphonate in fibrous dysplasia of bone that involves clinical centres in five European countries).

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, ensuring patient safety in compliance with Good Clinical Practice and current National and European legislation. 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 this conference is evidenced by the wide coverage in the media and specialised publications.

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 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 since the beginning of the post-genomic phase that started proteomics. The EUROCORES Programme EuroSCOPE bridges this gap by bundling 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.

More information: www.esf.org/euroscope

### 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 postcolonial 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 understandings 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

EUROCORES Programme This 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* 

### The Evolution of Cooperation and Trading (TECT)

Joint activity with LESC 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 palaeoanthropology, 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 OMLL Programme alike. The supports collaborative research in this area.

More information: www.esf.org/omll

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

### 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 10 international, multidisciplinary collaborative research projects, which are expected to contribute to this goal by initiating or strengthening major collaborative 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, AGRIPOPES, EcoTRADE), and others focus on the diversity in freshwater (BIOPOOL, MOLARCH). In 2007, the EuroDIVERSITY Programme will integrate the different European research teams involved with collaborative field work campaigns over Europe, international workshops and conferences, as well as joint peer-review publications.

More information: www.esf.org/eurodiversity

### Challenges of Marine Coring Research (EuroMARC)

The EuroMARC (Challenges of Marine Coring Research) Programme focuses on three major science themes: Earth's surface environmental change, processes and effects; the deep biosphere & sub-seafloor ocean; solid Earth cycles & geodynamics. Obtaining key cores from the subseafloor is crucial to progress in the Earth and environmental sciences because the 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 environmental sciences. They have and 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 is an essential enabling tool to boost European leadership in the planning of marine drilling and coring expeditions and the execution of European proposals, hence ensuring the effective exploitation of research opportunities. EuroMARC is also an important contribution to the European participation in both the International Marine Past Global Change Study (IMAGES/PAGES), and the Integrated Ocean Drilling Program (IODP), in liaison with the European Consortium for Ocean Research Drilling (ECORD).

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.  $CO_2$  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 km<sup>2</sup> of abyssal plains and the 65,000 km long mid-oceanic ridge system. At the same time, it encloses relatively small (hundreds of km<sup>2</sup> to only a few m<sup>2</sup>), 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 launch of this multidisciplinary EuroDEEP Programme is foreseen in June 2007 aiming at the exploration and identification of the different deepsea 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.

More information: www.esf.org/eurodeep

### European Mineral Sciences Initiative (EuroMinScI)

Joint activity with PESC

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

EuroMinScI draws together different experimental techniques and computational activities into integrated 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 Earth sciences.

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)

This EUROCORES Programme is intended to promote European collaborative research projects that aim to uncover processes that act as quality control checkpoints in gene expression and understand how these function at the molecular level.

The Programme will focus on basic mechanisms of RNA quality control that operate at different levels of RNA biogenesis. This will include studies on degradation of aberrant RNAs, the coupling between the mRNA synthesis and surveillance, and studies on quality control mechanisms in the biogenesis of rRNA, tRNA and other non-protein coding RNAs. These post-transcriptional processes appear to be conserved throughout evolution, and studies using important model organisms will therefore allow cross-species comparisons. These analyses will reveal the key, conserved components of these pathways, and will establish the basis for the reconstruction of posttranscriptional quality control networks in humans.

More information: www.esf.org/rnaquality

#### Science of Protein Production for Functional and Structural Analysis (EuroSCOPE) Joint activity with EMRC

The Evolution of Cooperation and Trading (TECT)

Joint activity with SCH and SCSS

### Standing Committee for the Physical and Engineering Sciences (PESC)

#### Cold Quantum Matter (EuroQUAM)

Quantum Matter is matter in which all 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 highprecision 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, solid-state 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. Major advances are expected as a result of the research being conducted within EuroQUAM. Currently the Programme is about to start its research and networking phase. The call for Outline Proposals launched in March 2006 resulted in 24 Outline Proposals from which 17 were invited to proceed to the Full Proposal stage. The focus of the Programme is covered under four themes of: tomic quantum gases with controllable interactions; Formation of molecules in ultracold atomic gases; Cooling molecules; and Ultracold plasmas and Rydberg gases.

More information: www.esf.org/euroquam

### European Mineral Sciences Initiative (EuroMinScI)

Joint activity with LESC

#### Fundamentals of Nanoelectronics (FoNE)

It is now widely accepted that the physics of hybrid nanostructures will underpin the microelectronics industry of the coming decades and that Europe must maintain a presence at the leading edge of this field. This EUROCORES Programme recognises that a comprehensive understanding of the above phenomena is crucial to the future development of nanoscale electronics and it aims to accelerate the pace of European research by concentrating and networking the activities of world-leading, European research groups.

The primary focus of FoNE is on fundamental nanoscale phenomena affecting electron transport. These include: quantum transport, noise and correlations in quantum dots, wires and other novel structures; molecular-scale electronics and atomic contacts; nanoscale spindependent transport and control; proximity effects and hybrid nanostructures.

More information: www.esf.org/fone

### Self-Organized NanoStructures (SONS) I (2002 Call)

Self-organization, or self-assembly, is a process in which a supramolecular organization is established in a complex system of interlocking components. The mechanism that produces the organization 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-organizing compounds allow a defined and well-controlled construction of ordered architectures on a nanometer-scale. The SONS Programme concerns the utilization of supramolecular interactions for the synthesis and positioning of functional assemblies, macromolecules, dendrimers, liquid crystals, tailormade 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.

More information at www.esf.org/sons

### Self-Organized NanoStructures (SONS) II (2005 Call)

For the scientific description see SONS I. 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

#### 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, 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 longterm 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 are being launched within the S3T Programme; they bring together 45 teams from 9 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.

Seven CRP's have started their research and networking activities. Several joint US-Europe activities as well as training and educational events are being organised.

More information: www.esf.org/s3t

### Standing Committee for the Social Sciences (SCSS)

### European Collaborative Research Projects 2007 Call – ECRP 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 2007, funding agencies of 19 countries are participating in the scheme, and the deadline for submitting proposals is 27 April. Proposals will be 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 agencies 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 and 2006 competitions are available on the web.

More information: www.esf.org/ecrp

### The Evolution of Cooperation and Trading (TECT)

Joint activity with SCSS



These small, interactive group sessions usually take 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 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.

The ESF funded 64 exploratory workshops in 2006:

- **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

#### EW05-224 - SCSS

Sharing and Building Knowledge through The Design and Development of a Collaboratory for Library and Information Science Research and Education

30 January-1 February 2006, Borås, Sweden

#### EW05-281 - SCSS

Health Consumer Groups and Policy Making in Europe: A Comparative and Pan-European Perspective

16-18 February 2006, Vienna, Austria

#### EW05-208 - SCH

Bridging The Gap Between Research on Second-Language Acquisition and Research on Language Testing

23-25 February 2006, Amsterdam, Netherlands

#### EW05-038 - LESC

Microbiological Meteorology: Working at The Intersection of Biology, Physics and Meteorology to Understand and Regulate the Microbial Component of Weather. 28 February-4 March 2006, Avignon, France

#### EW05-014 - EMRC

Attention, Action, and Time 7-9 March 2006, Amsterdam, Netherlands

#### EW05-273 - SCH

Stem Cell Cultures: Exploring The Social and Cultural Background to European Debates about Human Embryonic Stem Cells 10-12 March 2006, Nottingham, United Kingdom

#### EW05-059 - LESC

Chiral Xenobiotics in the Environment: Opportunities for Research Progress 26-28 March 2006, Birmingham, United Kingdom

#### EW05-293 - SCSS

Developing The EU Social Scientific Evidence Base on Integrated Approaches to Prevent and Address Homelessness 27-28 March 2006, York, United Kingdom

#### EW05-064 - LESC

Influence of Phytoplankton on Herbivore Reproductive Success – Impact of Infochemicals and Food Quality? 29-31 March 2006, Roscoff, France

#### EW05-176 - SCH

Migration and Transcultural Identities in The Viking Age 29 March-1 April 2006, Nottingham, United Kingdom

#### EW05-253 - SCSS

Evolutionary Economic Geography 3-5 April 2006, Cambridge, United Kingdom

#### EW05-153 - PESC

New Generation Large Aperture Solar Telescopes: Science Drivers, Observational Strategies and Perspectives 9-12 April 2006, Monte Porzio Catone, Italy

#### EW05-084 - LESC

Lepidoptera Evolution, Taxonomy and Systematics 26-29 April 2006, Stockholm, Sweden

#### EW05-193 - SCSS

Religion and Society. Cross-Disciplinary European Perspectives 18-20 May 2006, Aarhus, Denmark

#### EW05-162 - PESC

Crackling Noise 24-27 May 2006, Torino, Italy

#### EW05-210 - SCH

The Theologian Karl Barth: A European Event 25-27 May 2006, Jena, Germany

#### EW05-242 - SCH

The Bantu-Romance Connection 25-27 May 2006, Leeds, United Kingdom

#### EW05-320 - SCSS

Eastern European Women as Immigrants in Western European Transregions. Gender Perspectives on Everyday Life, Citizenship and Social Justice 31 May-3 June 2006, Helsinki, Finland

#### EW05-301 - SCSS

Local Food in Europe 13-17 June 2006, Bordeaux, France

#### EW05-030 - EMRC

Developments in European Radionuclide Therapy Dosimetry 15-17 June 2006, Würzburg, Germany

#### EW05-204 - SCH

Corpora in Phonological Research 15-17 June 2006, Amsterdam, Netherlands

#### EW05-052 - PESC, LESC

Experimental and Computational Aspects of Highthroughput Protein NMR 17-20 June 2006, Göteborg, Sweden

#### EW05-179 - SCH

Physics and Philosophy of Nature in Greek Neoplatonism 21-25 June 2006, Il Ciocco - Castelvecchio Pascoli, Italy

#### EW05-325 - SCSS

Designing Partnerships between Government and The Private Sector: Cross-Disciplinary Perspectives 23-24 June 2006, Bristol, United Kingdom

#### EW05-330 - SCSS

High Frequency Econometrics and The Analysis of Foreign Exchange Markets 25-28 June 2006, Coventry, United Kingdom Convened by: Mark Salmon (UK), Nikolaus Hautsch (DK), Lucio Sarno (UK)

#### EW05-071 - LESC

New Tools for Biodiversity Conservation through the Advancement of Phylogeographic Methodologies 3-6 July 2006, Norwich, United Kingdom

#### EW05-073 - LESC, SCSS

Effectiveness and Gaps in the European Legislation concerning Subterranean Fauna Protection and The Importance of Setting Up a European Network of Protected Caves 9-10 July 2006, Cluj-Napoca, Romania

### EW05-195 - SCH

Judgment and Decision Making as a Skill 9-12 July 2006, Cambridge, U.K.

#### EW05-097 - SCSS

Mathematical Models for Electricity Markets 12-14 July 2006, Ciudad Real, Spain

#### EW05-335 - SCH

The Esoteric Interpretation of The Qur'an 17-20 July 2006, Cambridge, United Kingdom

#### EW05-106 - PESC

Mott's Physics in Nanowires and Quantum Dots 31 July-2 August 2006, Loughborough, United Kingdom

#### EW05-096 - PESC

Carbon-Based Nanostructured Composite Films 29 August-2 September 2006, Gdansk, Poland

#### EW05-025 - EMRC

Links between Visceral Dysfunction and Affective disorders 31 August-3 September 2006, Graz, Austria

### **Exploratory Workshops**

#### EW05-286 - SCSS

Public Participation in Multi-Platform Media 1-3 September 2006, Oslo, Norway

#### EW05-066 - LESC

Positive Interactions, Biodiversity and Invasibility in A Changing World 3-7 September 2006, Arcachon, France

#### EW05-020 - EMRC

The Brain as A Target for Inflammatory Processes 7-9 September 2006, Berlin, Germany

#### EW05-333 - SCSS

Collaborative Case Studies for A European Cultural Psychology 7-10 September 2006, Veysonnaz, Switzerland

#### EW05-213 - SCH

Applied Logic in The Methodology of Science 8-10 September 2006, Bristol, United Kingdom

#### EW05-101 - PESC

Self-assembly of Guanosine Derivatives: from Quadruplex DNA to Biomolecular Devices 12-15 September 2006, Bled, Slovenia

#### EW05-123 - PESC

Silicon/oxide Hetero-Epitaxy: A New Road Towards A Si Cmos-Compatible Resonant Tunnel Diode Technology ? 12-13 September 2006, Como, Italy

#### EW05-199 - SCH

Regional Focus and Global Margin: Lake Tanganyika from C. 1700 Ad to The Present 13-16 September 2006, Bordeaux, France

#### EW05-160 - PESC

Chains: The Limits Of Neutrality 14-17 September 2006, Compiègne, France

**EW05-191 - SCH** Mapping (linguistic) Diversity in Multicultural Contexts 15-17 September 2006, Siena, Italy

#### EW05-238 - SCH, SCSS

Threat, Rights and Redress: Re-Imagining Terrorism and Security in Europe 15-17 September 2006, Nottingham, United Kingdom

#### EW05-303 - SCSS

Outsourcing, Migration, and The European Economy: Competing Perspectives and Policy Implications

15-17 September 2006, Rome, Italy

#### EW05-323 - SCH

Theoretical and Practical Implications for The Understanding of Sign Language Acquisition and Its Consequences for Sign Language Assessment 15-17 September 2006, Zurich, Switzerland

#### EW05-122 - PESC

Computational Aspects of Stochastic Partial Differential Equations 17-21 September 2006, Salzburg, Austria

#### EW05-036 - LESC

Phenology and Agroclimatology 20-23 September 2006, Volos, Greece

#### EW05-070 - LESC

Mechanisms of desiccation tolerance 21-22 September 2006, Cambridge, United Kingdom

#### EW05-085 - LESC

Very High Resolution Environmental Modelling (VHREM) 21-23 September 2006, Stuttgart, Germany

#### EW05-200 - SCH

Freemasonry and National Identities in Europe: Levels of Construction 27-30 September 2006, Brussels, Belgium

#### EW05-090 - LESC, SCSS

Towards "Real" Comparative Social Cognition: Integrating Theories, Terminology and Methods across A Wide Range of Human and Non-human Animal Species 4-8 October 2006, Alsóörs, Hungary

#### EW05-241 - EMRC

Network on Primary HIV Infection in Europe: When and How 5-6 October 2006, Milano, Italy Convened by: Giuseppe Tambussi (IT)
#### EW05-119 - PESC

Challenges in Java Program Verification 16-18 October 2006, Nijmegen, Netherlands

### EW05-013 - EMRC

Health and Environmental Disparities: The Case of Lung Disease (HED) 20-22 October 2006, Paris, France

### EW05-250 - SCSS

Identity Formation and Recognition Struggles of Europe's Racialised Minorities in The Light of Inequalities in Education 26-29 October 2006, Budapest, Hungary

#### EW05-309 - SCSS

Religious Ngos, Civil Society and The Aid System 8-10 November 2006, Oslo, Norway

### EW05-065 - LESC

Invasion of European Shores by Sargassum Muticum: Research Integration towards the Future 9-12 November 2006, Faro, Portugal

#### EW05-130 - PESC

Exotic Radionuclides from Accelerator Waste for Science and Technology 15-17 November 2006, Villigen, Switzerland

### EW05-107 - PESC

Advances and Opportunities in Freeform Ultra-Precision Micromanufacturing Technologies 22-23 November 2006, Nottingham, United Kingdom

#### EW05-135 - PESC

Physics of The Cell: From Single Molecules to Collective Behavior 29 November-1 December 2006, Barcelona, Spain

#### EW05-284 - SCSS

The Third Sector In A Changing Europe: Key Trends And Challenges 6-8 December 2006, Budapest, Hungary

### EW05-010 - EMRC, SCH

Metacognition and mental state monitoring 7-9 December 2006, Paris, France

### EW05-248 - SCSS

Making Sense in The City 17-20 December 2006, Ghent, Belgium



ESF Forward Looks is an instrument which enables 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 with the aim of defining research agendas and priorities. The purpose of a Forward Look is to bring together, in a global context, scientific foresight and priority setting for research funding at the national and the European levels.

More information: www.esf.org/flooks

The following pages highlight new Forward Looks which got underway in 2006. For detailed information please visit the relevant noted location on the ESF Website. For information on all other currently running Forward Looks.

- **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

(Lead unit is in **BOLD**)



# European Food Systems in a Changing World 2006-2007

Joint activity of EMRC LESC SCH SCSS

Food security is a primary societal goal in which food systems play a pivotal role. European food systems are changing, driven by complex technological and policy factors including Common Agricultural Policy (CAP) reform. These changes will affect the interactions between food availability, food access and food utilisation in uncertain ways. In addition to providing safe and healthy food, European food systems also contribute to an increasing number of goals including environmental functions, landscape and society objectives. This Forward Look will focus on how the changes in Europe's food systems drivers, in the context of balancing the varied goals, will affect these interactions.

More information: www.esf.org/food

# **Forward Looks**

#### European Computational Science Forum – The Lincei Initiative: from Computers to Scientific Excellence 2006-2007

Joint activity of LESC PESC



The aim of this Forward Look is to develop a vision on how computational sciences will evolve in the coming 10 to 20 years. Over the last ten years research codes have grown from individual solutions to versatile yet complex tools. They are instrumental in over 2000 publications per year in international journals but they increasingly require new development and maintenance schemes. Based on a scenario of how this field and the needs of the scientific community will evolve, a strategy will be presented to structure support and development at the European level.

This Forward Look is initiated by the atomic-scale materials simulation community, but the outcome will be of interest to other Computational Science communities as well. Implementation of the recommendations of this Forward Look should lead to an advanced cyber-infrastructure that allows Europe to maintain its leading position in this field.

More information: www.esf.org/lincei

#### Higher Education in Europe Beyond 2010: Resolving Conflicting Social and Economic Expectations 2006-2007

#### Joint activity of SCH SCSS

Higher education institutions are being subjected to a variety of pressures that seek, primarily, to enhance higher education's contribution to the successful creation of so-called 'knowledge societies', together with, and receiving only slightly less emphasis, the achievement of greater equity and social justice. This Forward Look will examine the relevant higher education research literature in terms of its underlying conceptual approaches and empirical findings across a number of selected subthemes in order to derive a future research agenda that will address scientific questions of long term strategic concern to the future of higher education.

More information: www.esf.org/helf



ESF Policy Briefings (SPB) originated as a means for the ESF to issue position statements on a variety of science policy issues, such as the ethical use of animals in research or an ESF policy on human stem cells. Since its launch in 1997 more than two dozen of policy briefings have been published which deal with various issues concerning the European Research Area. Today, ESF Policy Briefings emerge either from initiatives of one or more ESF Standing Committee and/or Expert Committee, or are proposed by Member Organisations. If the Policy Briefing results from an initiative of Member Organisations, a working group or task force is assembled to prepare the Briefing to ensure quality control. Forward Looks are required to publish an ESF Science Policy Briefing as quickly as possible after the final conference, followed by a more substantial monograph which can also include reports and papers developed in the course of the Forward Look. Policy Briefings are only published after proper external peer review.

The following pages highlight new Policy Briefings which got underway in 2006. For detailed information please visit the relevant noted location on the ESF Website.

For information on all other current policy activities, please visit www.esf.org/activities/science-policy

#### Rheumatic Diseases (SPB N°26, June 2006)

The task force, comprising Europe's leading researchers and clinicians, along with observers from a patients' representative group and the European Medicines Agency, EMEA, has looked across the field, considering all aspects of basic research and clinical practice, and distilled its findings into five key recommendations:

- To promote a pan-European research effort for a better understanding of the molecular and cellular basis of chronicity in rheumatic diseases for the development of curative and preventative strategies
- To promote coordinated European studies and trials in order to evaluate the incidence and outcome of rheumatic diseases and the development of prevention strategies.
- To establish a pan-European network developing basic strategies for cell therapies of rheumatic diseases

- To promote a pan-European research effort towards a better understanding of the molecular and cellular pathology of osteoarthritis and osteoporosis
- To set up a Scientific Advisory Group (SAG) for rheumatic diseases at the European Medicines Agency (EMEA) with members from academia (i.e. basic, translational, clinical and epidemiological research) and patient organisations

The aim is to provide coherent objectives for national and European funding bodies, and healthcare providers, and to ensure that rheumatic diseases are acknowledged as a major group of diseases within the European Commission Framework FP7.

*More information: www.esf.org/rheumaticdiseases* 

# Structural Medicine: The Importance of Glycomics for Health and Disease

(SPB N°27, July 2006)

This policy briefing is aimed to develop an area of research considered vital to European medicine; 'glycomics'. The briefing says that a multidisciplinary approach, to relate the structure of intrinsic glycans and glycoconjugates to their biological function, could aid the rapid development of treatments and diagnostics for a number of life threatening diseases.

The recommendations include:

- A strong coordinated interdisciplinary European research effort to enhance our insights into the structure of glycans and glycoconjugates in health and disease
- The development of high throughput diagnostic tools for the rapid analysis of glycans and improved infrastructures to provide the research community with better access to information
- Investment into European interdisciplinary educational programmes aimed at training scientists in glycoscience

More information: www.esf.org/glycomics

# **ESF Research Conferences**



The ESF continues the development of the ESF Research Conferences Scheme, principally through the establishment of long-term partnerships between the ESF and national and international organisations, including universities. Topics are at the frontiers of scientific research and interdisciplinary when appropriate. The scheme provides the opportunity for leading scientists and other participants, including young researchers, to meet for discussions on the most recent developments in their fields of research. It acts as a catalyst for creating new synergistic contacts throughout Europe and the rest of the world.

Conferences may be single events, or series, usually with a biennial meeting focusing on specific aspects of the same general topic. They generally 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 Scheme also provides co-sponsorship for a series of advanced scientific training Summer and Winter Schools in High Energy Physics & Astrophysics, Physics & Astronomy, and Theoretical Physics. The ESF Conferences Unit also organises ESF World Conferences.

In 2006, ESF has funded 17 conferences and two summer schools with various partners (below). For information on the planned 2007 conferences, please refer to the About ESF 2007 booklet or go to *www.esf.org/activities/esf-conferences* 

The following list is categorised by various partnerships for the conferences/schools.

# ESF-JSPS Frontier Science Conference Series for Young Researchers

With Japan Society for the Promotion of Science (JSPS) www.jsps.go.jp

Functional Genomics: From the Bench to Bioinformatics – Follow-Up Workshop,

Chairs: G. Von Heijne (Stockholm) & S. Miyano (Tokvo)

Kanagawa, Japan , 6 - 11 March 2006 Climate Change,

Chairs: K. Noone (Stockholm) & S. Fukao (Kyoto) Nynäshamn, Sweden, 24 - 29 June 2006

### ESF-EMBO Symposia

With European Molecular Biology Organization (EMBO) www.embo.org

B Cells cross the Divide: From In Silico to the Whole Person,

Chairs: T. Defrance (Lyon) & J. Gordon (Birmingham)

Sant Feliu de Guixols (Costa Brava), Spain, 13 - 18 May 2006

Gene Transcription in Yeast,

Chairs: J. Mellor (Oxford) & M. Collart (Geneva)

Sant Feliu de Guixols (Costa Brava), Spain, 24 - 29 June 2006

Bacterial Networks: Joining the Strengths of Structural- and Systems Biology to reach 'Synthetic' Biology,

Chair: K.J. Hellingwerf (Amsterdam)

Sant Feliu de Guixols (Costa Brava), Spain, 14 - 19 October 2006

Stem Cells in Tissue Engineering: Isolation, Culture, Characterisation and Applications, Chair: R.L. Reis (Braga)

Sant Feliu de Guixols (Costa Brava), Spain, 28 October - 2 November 2006

# EMBO Conference Series, with support from ESF and FEBS Travel Fellowships & Special Lectures

With European Molecular Biology Organization (EMBO) www.embo.org

Interface of Cell Biology and Cellular Microbiology: Macromolecular Complexes in Microbial Pathogenesis, Membrane Trafficking and Cell Signalling,

Chair: H. Stenmark (Oslo)

Sant Feliu de Guixols (Costa Brava), Spain, 23 - 28 September 2006

# ESF-FWF Conferences in Partnership with LFUI

With Fonds zur Förderung der wissenschaftlichen Forschung in Österreich (FWF) www.fwf.ac.at

With Leopold-Franzens-Universität Innsbruck

(LFUI) www.uibk.ac.at/unis-index-en.html Biomolecules: From Gas Phase Properties to

Reactions relevant in Living Cells,

Chairs: N.J. Mason (Milton Keynes) & E. Illenberger (Berlin)

Obergurgl (Oetz Valley, near Innsbruck), Austria, 24 - 29 June 2006

Solid/Fluid Interfaces: Complex Fluid Interfaces and Nanofluidics,

Chairs: K. Mecke (Erlangen) & M. Dijkstra (Utrecht) Obergurgl (Oetz Valley, near Innsbruck), Austria, 9 -14 September 2006

Reduced Nitrogen in Ecology and the Environment,

Chair: J.W. Erisman (Petten)

Obergurgl (Oetz Valley, near Innsbruck), Austria, 13 - 18 October 2006

#### **ESF-Wellcome Trust Conferences**

With Wellcome Trust www.wellcome.ac.uk

Signalling to Chromatin: Epigenetics, Chairs: M. Turner (Cambridge), P. Varga-Weisz (Cambridge), A. Rao (Boston) & N. Divecha (Amsterdam)

Hinxton (near Cambridge), U.K., 5 - 9 June 2006

Crop Genomics, Trait Analysis and Breeding, Chair: M. Bevan (Norwich)

Hinxton (near Cambridge), U.K., 8 - 12 November 2006

#### **ESF-COST High-Level Research Conferences**

Inorganic Chemistry: Metal-Nucleic Acid Interactions, Chair: J. Reedijk (Leiden) Athens, Greece, 12 - 17 November 2006

#### **ESF-LiU Conferences**

With Linköping University (LiU) www.liu.se/en

Intersectionality, Identity and Power, Chairs: N. Lykke (Leiden) & J. Hearn (Helsinki) Vadst ena, Sweden, 11 - 15 October 2006

**Cities and Media: Cultural Perspectives on Urban Identities in a Mediatized World,** Chairs: J. Fornäs (Norkkoping) & N. Couldry (London)

Vadstena, Sweden, 25 - 29 October 2006

#### **ESF-UB** Conferences in Biomedicine

With University of Barcelona (UB) / www.liu.se/en

Nanomedicine: A new Opportunity for improving Diagnosis, Prevention and Treatment for Disease,

Chairs: R. Duncan (Cardiff), J. Deacon (Berks), A. Gabizon (Jerusalem), R. Gaspar (Lisbon), W.

Kreyling (Neuherberg) & J. Samitier (Barcelona) Sant Feliu de Guixols (Costa Brava), Spain, 15 - 20 September 2006

# ESF-IfW Conferences on the Global Health Economy

With Institut für Weltwirtschaft an der Universität Kiel (IfW) www.ifw-kiel.de

New Technology and Medical Decision Making: Normative Models and Empirical Practice, Chair: U. Siebert (Innsbruck)

Salzau (near Kiel), Germany, 4 - 9 October 2006

# **Summer Schools**

#### ESF-CERN Cargese Summer Schools in High Energy Physics & Astrophysics

With European Organization for Nuclear Research (CERN)

public.web.cern.ch/Public/Welcome.html

Branes and Strings: The Present Paradigm for Particles and Cosmology,

Chairs: L. Baulieu (Paris) & E. Rabinovici (Jerusalem)

Cargese, France, 22 May - 3 June 2006

# ESF-PPARC-EPSRC Summer School in Physics & Astronomy (SUSSP)

With Particle Physics and Astronomy Research Council (PPARC) www.pparc.ac.uk With Engineering and Physical Sciences Research Council (EPSRC) www.epsrc.ac.uk/default.htm

Neutrinos in Particle Physics, Astrophysics and Cosmology,

Chairs: K. Peach (Oxford) & N. Glover (Durham) St. Andrews, U.K., 8 - 23 August 2006



# **Research Networking Programmes**

These long-term Research Networking Programmes (formerly known as Scientific 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.

The following pages highlight new Research Networking Programmes which got underway in 2006. 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 2007 booklet or go to www.esf.org/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 Humanities (SCH)

#### Associated Regional Chronologies for the Ancient Near East and Eastern Mediterranean (ARCANE) 2006-2010

#### 12 contributing organisations

Chronology underpins all archaeological and historical studies. To establish the proper sequence of events is a prerequisite for writing history. The synchronisation of chronologies, and therefore of the histories, of the various areas of the Eastern Mediterranean and the Near East is an essential task without which the development of civilisations, their reciprocal influences, their convergence and divergence, cannot be described and understood. The ultimate goal of the ARCANE Programme is to produce a reliable, relative and absolute chronology of the Near East and the Eastern Mediterranean,



based on the synchronisation of regional chronologies for the third millennium BC. *More information: www.esf.org/arcane* 

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

# Frontiers of Functional Genomics (FFG) 2006-2011

Joint activity with EMRC

23 contributing organisations

Functional genomics, the exploration of gene function on a global scale, is currently at the leading edge of progress in the life sciences and medicine. The ESF Programme 'Integrated Approaches to Functional Genomics', which ended in October 2005, facilitated communication and interactions among European researchers and succeeded in engaging a wide audience, gaining considerable international recognition. This new Programme will connect the most promising developments in functional genomics technologies with the expanding concept of systems biology, focusing particularly on applications in biomedicine, as well as the environment and implications for society at large.

More information: www.esf.org/ffg

#### Functional Dynamics in Complex Chemical and Biological Systems (FUNCDYN) 2006-2011

Joint activity with PESC

16 contributing organisations

The aim of this Programme is to establish a competitive European research community in

functional dynamics and to bring together researchers from the field of non-linear dynamics with researchers from biochemistry and biology. Living organisms are characterised by a plethora of chemical and structural details at numerous levels of complexity, making comprehensive understanding and modelling at every spatial and temporal scale an unattainable task. One aim of the FUNCDYN Programme is the development of systematic methods for reduction of model complexity by restricting the modelling to relevant temporal and spatial scales without losing the quantitative predictive ability. Another aim is the development of equipment and experimental protocols for the efficient collection of relevant dynamic data. The programme will also include studies of non-biological systems, which are dynamically similar to living cells such as interacting oscillators operating far from thermodynamic equilibrium. These types of studies are an inspiration for similar approaches for bio-systems and essential for testing the feasibility of new analytic and experimental ideas.

More information: www.esf.org/funcdyn

# Mediterranean Climate Variability and Predictability (MedCLIVAR) 2006-2011

#### 12 contributing organisations

MedCLIVAR aims to coordinate and promote research on the Mediterranean climate. The main goals include reconstruction of its past evolution, description of patterns and mechanisms characterising its space-time variability, and identification of the forcing parameters responsible for the observed changes. Emphasis will be put on the identification of trends present in observational records as well as on climate predictions under future emission scenarios. MedCLIVAR also covers the study of the occurrence of extreme events – closely related to climate variability and changes, and the impact of climate change.

More information: www.esf.org/medclivar

# Nitrogen in Europe: assessment of current problems and future solutions (NinE) 2006-2011

#### 11 contributing organisations

Nitrogen is an important cross-cutting theme over most of the important environmental problems for Europe: climate change, biodiversity, ecosystem health, human health, ground water pollution, etc. The NinE Programme addresses interacting problems affected by excess nitrogen in the environment. Fixed nitrogen cascades through many different forms and environmental compartments, generating a highly interdependent network. Solutions to each problem therefore cannot be developed in isolation. The NinE Programme is building the European scientific network necessary to quantify these interactions and underpin the development of future solutions, focusing its efforts on delivering a fully integrated assessment of European nitrogen problems.

More information: www.esf.org/nine

### Thermal Adaptation in Ectotherms: linking life history,physiology, behaviour and genetics (THERMADAPT) 2006-2011

13 contributing organisations

This Programme studies thermal adaptation of ectothermic (coldblooded) organisms. The thermal environment is a factor crucially affecting ectotherm life history. Metabolism, thermal tolerance and resistance, as well as lower and upper temperature boundaries all differ between species and populations. This indicates the presence of specific adaptations but also constraints, the physiological and genetic basis of which is generally not well understood. Ultimately, such adaptation at the physiological level affects the dispersal, migration, diapause and distribution of species. As a result, prominent within-species temperature-size effects (larger at cooler temperatures) and Bergmann clines (larger at higher latitudes) occur in all major animal taxa but remain largely unexplained.

The Programme proposes to launch a crossdisciplinary, cross-taxonomic European effort to promote interactions between researchers working at different levels of biological organisation to integrate various approaches. The aim is to involve scientists working in molecular and cell biology to promote the use of new genetic and genomic techniques in this field in an attempt to link microevolutionary mechanisms to macro-evolutionary patterns. Broad use of these costly and knowhow-intensive methods is best and most efficiently facilitated through a concerted effort at the European scale, involving training, exchange of specimens and sharing of facilities.

More information: www.esf.org/thermadapt

# Workshops on Marine Research Drilling (Magellan Workshop Series) 2006-2011

12 contributing organisations

Over the last decennia European researchers played a leading role in the international marine research drilling community which has made major contributions to important discoveries and scientific advances such as: the operation of plate tectonics and the accretion of the oceanic lithosphere, the existence of microbial communities (deep biosphere) and the presence of frozen methane (gas hydrates) below the sea floor, past extreme and rapid climate variations, high resolution climate perturbations, new models for passive margin evolution, the mechanisms for biogeochemical cycles, and the discovery of large igneous provinces associated with continental break-up at volcanic margins. Societal relevance has moved several of those themes into the spotlight. One of those, rapid climate change, has an important impact on global environments (for example, earthquakes, volcanic eruptions, tsunamis, biological changes). However, such processes are far away from reliable short- and long-term prediction.



The ESF Magellan Workshop Series Programme provides a mechanism to stimulate and nurture the process of developing new and innovative science proposals to support European leadership in the development and planning of marine drilling expeditions. It is an initiative by the European Consortium for Ocean Research Drilling (ECORD), the European partner of the International Ocean Drilling Program (IODP) and as a European contribution to the IMAGES-related science.

More information: www.esf.org/magellan

# Standing Committee for the Physical and Engineering Sciences (PESC)

# Computational Astrophysics and Cosmology (ASTROSIM) 2006-2011

13 contributing organisations

This Programme aims to bring together European computational astrophysicists working on a broad range of topics from the stability of the solar system to the formation of stars and galaxies. Understanding our origins and the formation of structure in the universe is a challenging multidisciplinary research activity that brings together observational, experimental and theoretical researchers with a broad range of expertise. The systems that we attempt to model are complex and involve a range of physical processes operating over enormous lengths and timescales. Computational techniques developed bv researchers in Europe since the 1960s have played a central role in advancing this subject, developing theories for structure formation, testing cosmological models and solving the complex nonlinear problems inherent to gravitational and hydrodynamical astrophysical processes. Understanding the strong interplay between different scales is essential for a complete theory and true comprehension of structure formation. Our aims are to strengthen the existing European activities in computational astrophysics, avoiding fragmentation as this field grows in strength and to exchange expertise through an active program of conferences, workshops, training schools and exchange visits. Our scientific objectives are to refine our computational techniques and multiscale modelling in order to develop and test theories of structure formation in readiness for the grand challenge European projects planned by ESO and ESA over the coming decades.

More information: www.esf.org/astrosim

# **Research Networking Programmes**

#### Functional Dynamics in Complex Chemical and Biological Systems (FUNCDYN) 2006-2011

Joint activity with LESC

# Molecular Simulations in Biosystems and Material Science (SimBioMa) 2006-2011

19 contributing organisations

The aim of the Programme is to initiate a concerted European effort to develop those computational tools that can be used to obtain a better molecular understanding of the emergence of mesoscopic structure and dynamics in biological systems ("molecular systems biology") and in man-made nano-structured materials. In order to establish the link between molecular properties and mesoscopic materials properties, one must use an integrated approach that seamlessly integrates quantum calculations, molecular simulations and mesoscopic modelling techniques.

More information: www.esf.org/simbioma

#### New Generation of Organic based Photovoltaic Devices (ORGANISOLAR) 2006-2011

#### 11 contributing organisations

Solar energy conversion based on organic materials is an emerging research field with substantial future prospects. A broad range of distinct device technologies are currently being developed, including dye-sensitized nanocrystalline solar cells, polymer/fullerene blends, small molecule thin films and hybrid polymer/nanocrystal devices. Several European groups have already established themselves as world leaders in this field with for example world record efficiencies for both dye-sensitised and polymer/fullerene devices currently being held by research groups in Lausanne and Linz respectively. Major nationally based research programmes are under way with extensive European industrial investment.

More information: www.esf.org/organisolar

# Quantum Geometry and Quantum Gravity (QG) 2006-2011

#### 11 contributing organisations

The main objective of the Programme is to stimulate the exchange of ideas between researchers pursuing different approaches to quantum geometry and apply the results to the study of quantum gravity. The research programme will study several approaches to quantum gravity, namely loop quantum gravity, spin foam models, dynamical triangulations and matrix models. The common theme is the occurrence of quantum geometry in all these approaches. The research programme will study mathematical tools and techniques in non-commutative geometry and quantum groups and their applications to quantum gravity. The planned activities are workshops and conferences, schools and programmes of research visits. These are designed to increase the level of interaction between existing research groups and to give a broad education in all the approaches to a new generation of young researchers.

More information: www.esf.org/qg

# Standing Committee for the Social Sciences (SCSS)

#### Globalizing Europe Economic History Network (GLOBALEURONET) 2006-2010

14 contributing organisations

The main scientific objective of the Programme is to investigate, on a systematic, Europe-wide and integrated (i.e., both quantitative and qualitative) basis, the economic, institutional and social specificities of Europe's participation in the globalisation waves that occurred during the last 150 years. Its strategic objective is to promote the convergence of quantitative research methods, the consolidation of existing and future research projects at national level into a European common research agenda, and the organisation of common education and training activities.



The Programme will focus on the construction of an integrated, Europe-wide database for the period 1850-2000, based on a uniform, consistent methodology that will consolidate existing partial databases and enhance further collection of data, covering a wide range of quantitative indicators – both traditional and new – of market integration, social welfare, economic growth, as well as qualitative information on institutional development.

More information: www.esf.org/globaleuronet

# Public Goods, Public Projects, Externalities (PGPPE) 2006-2010

#### 6 contributing organisations

The Programme concentrates on the economic rather than political challenges that will help realise the decades-old dream of a political Europe. The idea of this study is that this will be achieved through the definition of European policies in the provision and financing of public goods and services, and defence of the environment.

Specific topics include pure public goods and public projects, impure public goods, public goods as production inputs, externalities and environment. The outcome of this Programme will be the creation and development of an effective research network mixing theorists, specialists of political economy and of history of economic analysis and practitioners of public economics.

# More information: www.esf.org/pgppe



# Qualitative Research in the Social Sciences in Europe (EUROQUAL) 2006-2010

14 contributing organisations



The proposal is for a research programme in qualitative methods, complementing the existing ESF programme in quantitative methods. It is based on the fact that while qualitative research is highly visible in many fields of social-science research, it exists within many sub-specialisms, and reflects national as well as disciplinary boundaries. There is a clear need for scholars throughout Europe to share, develop and promote high-level methodological expertise. There is an equally pressing need for capacity-building within the European social sciences. The Programme addresses these needs through two closely linked activities: expert interdisciplinary and cross-national workshops and associated training events.

More information: www.esf.org/euroqual

#### TransEurope Research Network (TRANSEUROPE) 2006-2011

#### 7 contributing organisations

Though the phenomena of Europeanisation and globalisation are increasingly dominating the public and political discourse, there remains a lack of research on how these processes affect and change the family and employment lives of European citizens. So far, little empirical research connects these transnational changes to inequality at the individual level in Europe. Furthermore, it is not yet established whether individual life courses in European countries are experiencing more convergence or divergence.

The TransEurope Research Network brings together leading European experts in Political Science, Demography, Economics, and Sociology from 7 countries to compare the impact of transnational shifts on life course inequality across Europe.

More information: www.esf.org/transeurope

# ESF Member Organisations in 2006 (as at 31 December 2006)

78 Member Organisations in 30 countries

For the latest information about ESF Member Organisations, please visit www.esf.org/members

### **Austria**

#### Fonds zur Förderung der wissenschaftlichen Forschung in Österreich (FWF) Austrian Science Fund Sensengasse 1 • 1090 Wien www.fwf.ac.at

### Österreichische Akademie

der Wissenschaften (ÖAW) Austrian Academy of Sciences Dr. Ignaz-Seipel Platz 2 • 1010 Wien www.oeaw.ac.at

### **Belgium**

# Fonds National de la Recherche Scientifique (FNRS)

National Fund for Scientific Research 5, rue d'Egmont • 1000 Bruxelles www.fnrs.be

# Fonds voor Wetenschappelijk

Onderzoek-Vlaanderen (FWO) Fund for Scientific Research - Flanders 5 Egmontstraat • 1000 Brussel www.fwo.be

### **Bulgaria**

**Българска академия на науките** (BAS) Bulgarian Academy of Sciences 1, 15 Noemvri Str • Sofia 1040 www.bas.bg

### Научни изследвания

National Science Fund of Bulgaria 2A Kniaz Dondukov Blvd. • Sofia 1000 www.nsfb.net

# Croatia

#### Hrvatska akademija znanosti i Umjetnosti (HAZU)

Croatian Academy of Sciences and Arts Zrinski Trg 11 • 10000 Zagreb www.hazu.hr

# Cyprus

### Ίδρυμα Προώθησης Έρευνας (RPF)

Cyprus Research Promotion Foundation PO Box 23422 • 1683 Nicosia www.research.org.cy

# **Czech Republic**

# Akademie věd České republiky (ASČR)

Academy of Sciences of the Czech Republic Národní 3 • 117 20 Prague 1 www.cas.cz

### Grantová agentura České republiky (GAČR)

Czech Science Foundation Národní 3 • P.O. Box 1081 • 110 00 Prague 1 www.gacr.cz

# Denmark

#### Danmarks Grundforskningsfonden (DG) Danish National Research Foundation

Holbergsgade 14, 1 • 1057 Copenhagen www.dg.dk

#### Det Kongelige Danske Videnskabernes Selskab

Royal Danish Academy of Sciences and Letters H.C. Andersens Boulevard 35 1553 Copenhagen V www.royalacademy.dk

# 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

Bredgade 4 • 1260 Copenhagen K www.forsk.dk

# **Estonia**

#### Eesti Teaduste Akadeemia

Estonian Academy of Sciences Kohtu 6 • 10130 Tallinn www.akadeemia.ee

### Eesti Teadusfond (ETF)

Estonian Science Foundation Endla 4 • 10130 Tallinn www.etf.ee Finland Suomen Akatemia/Finlands Akademi Academy of Finland PO Box 99 • Vilhonvuorenkatu 6 00501 Helsinki www.aka.fi

Suomen Tiedeakatemiain Valtuuskunta/Delegationen för Vetenskapsakademierna i Finland Delegation of the Finnish Academies of Science and Letters Mariankatu 5 • 00170 Helsinki www.helsinki.fi/science/deleg

### France

# Centre national de la recherche Scientifique (CNRS)

National Centre for Scientific Research 3 rue Michel-Ange • 75794 Paris cedex 16 www.cnrs.fr

# **ESF** Member Organisations in 2006

# Commissariat à l'Énergie Atomique/Direction des Sciences de la Matière (CEA/DSM)

Materials Sciences de la Mattere (CEA/DSM) Materials Sciences Division of the Atomic Energy Commission 31-33 rue de la Fédération 75752 Paris cedex 15 www.cea.fr

# Institut français de recherche

pour l'exploitation de la mer (IFREMER) French Research Institute for Exploitation of the Sea Technopolis 40 155 rue Jean-Jacques Rousseau 9213 8 Issy-les-Moulineaux cedex www.ifremer.fr

#### Institut national de la recherche Agronomique (INRA)

National Institute for Agricultural Research 147 rue de l'Université • 75338 Paris cedex 07 www.inra.fr

# Institut national de la santé

et de la recherche médicale (INSERM) National Institute for Health and Medical Research 101 rue de Tolbiac • 75654 Paris cedex 13 www.inserm.fr

### Institut de recherche

pour le développement (IRD) National Institute for Development 209-213 rue La Fayette 75480 Paris cedex 10 www.ird.fr

### Germany

Deutsche Forschungsgemeinschaft (DFG) German Research Foundation Kennedyallee 40 • 53175 Bonn www.dfg.de

#### Hermann von Helmholtz-Gemeinschaft Deutscher Forschungszentren (HGF)

Helmholtz Association of German Research Centres Postfach 20 14 48 • Ahrstrasse 45 531 75 Bonn www.helmholtz.de

### Max-Planck-Gesellschaft (MPG)

Max Planck Society Postfach 10 10 62 • Hofgartenstrasse 8 80539 München www.mpg.de

# Union der deutschen Akademien der Wissenschaften

Union of the German Academies of Sciences and Humanities Geschwister-Scholl-Strasse 2 • 55131 Mainz www.akademieunion.de

### Greece

# ΕΟΝΙΚΟ ΙΔΡΥΜΑ ΕΡΕΥΝΩΝ (NHRF)

National Hellenic Research Foundation 48 Vassileos Constantinou Avenue 116 35 Athens www.eie.gr

## Ίδρυμα Τεχνολογίας και Έρευνας (FORTH)

Foundation for Research and Technology – Hellas Forth-IACM, Vassilika • PO Box 152 • 711 10 Heraklion www.forth.gr

# Hungary

Magyar Tudományos Akadémia (MTA) Hungarian Academy of Sciences

Roosevelt tér. 9 • 1051 Budapest www.mta.hu

#### Országos Tudományos Kutatási Alapprogramok (OTKA)

Hungarian Scientific Research Fund Könyves Kàlmàn Krt. 48-52 • 1087 Budapest www.otka.hu

# Iceland

#### RANNIS

Icelandic Centre for Research Laugavegi 13 • 101 Reykjavik www.rannis.is

### Ireland

#### Am Chomhairle um Thaighde sna Dána agus sna hEolaíochtaí Sóisialta (IRCHSS) Irish Research Council for the

Humanities and Social Sciences First Floor • Brooklawn House • Shelbourne Road • Ballsbridge • Dublin 4 www.irchss.ie

# **Enterprise Ireland**

Glasnevin • Dublin 9 www.enterprise-ireland.com

# Health Research Board (HRB)

73 Lower Baggot Street • Dublin 2 www.hrb.ie

# Irish Research Council for Sciences,

Engineering and Technology (IRCSET) Brooklawn House • Shelbourne Road Dublin 4 www.ircset.ie

# **Royal Irish Academy**

19 Dawson Street • Dublin 2 www.ria.ie

# Italy

### Consiglio Nazionale delle Ricerche (CNR) National Research Council

Piazzale Aldo Moro 7 • 00185 Roma www.cnr.it

# Istituto Nazionale di Fisica Nucleare (INFN)

National Institute for Nuclear Physics Piazza del Caprettari 70 • 00186 Roma www.infn.it

# Lithuania

# Lietuvos Valstybinis Mokslo Ir Studijų Fondas

Lithuanian State Science and Studies Foundation Gostauto str. 12-407 • Vilnius 01108 www.ymsfondas.lt

# Luxembourg

Fonds National de la Recherche (FNR) National Research Fund Building D1 • 3rd Floor of the Chamber of Commerce • 6 rue Antoine de Saint-Exupery • PO Box 1777 • 1017 Luxembourg-Kirchberg www.fnr.lu

# **Netherlands**

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

and Sciences Het Trippenhuis • Kloveniersburgwal 27 Postbus 19121 • 1000 GC Amsterdam www.knaw.nl

# Nederlandse Organisatie voor

Wetenschappelijk Onderzoek (NWO) Netherlands Organisation for Scientific Research Laan van Nieuw Oost Indië 300 Postbus 93138 • 2593 CE Den Haag www.nwo.nl

# Norway

#### Det Norske Videnskaps-Akademi Norwegian Academy of Science and Letters Drammensveien 78 • 0271 Oslo www.dnva.no

# Norges Forskningsråd

Research Council of Norway Stensberggata 26 • PO Box 2700 St Hanshaugen • 0131 Oslo www.forskningsradet.no

# **ESF** Member Organisations in 2006

### Poland

#### Polska Akademia Nauk (PAN)

Polish Academy of Sciences Palac Kultury i Nauki • 00-901 Warsaw www.pan.pl

### Portugal

### Academia das Ciências de Lisboa

Lisbon Academy of Sciences Rua da Academia das Ciências, 19 1249-122 Lisboa www.acas-ciencias.pt

### Fundação para a Ciência e a Tecnologia (FCT)

Foundation for Science and Technology Avenida Dom Carlos I, 12 6 1249-074 Lisboa www.fct.mces.pt

# Gabinete de Relações Internacionais

da Ciência e do Ensino Superior (GRICES) Portuguese International Relations Cabinet for Science and Higher Education Av. 5 de Outubro, 85-5° • 1150-050 Lisboa www.iccti.mct.pt

### Romania

### Consiliul National al Cercetarii Stiintifice din Invatamantul Superior (CNCSIS) National University Research Council 1 Shitu Magureanu Ave. Cod 76626 sector 5 • Bucharest www.cncsis.ro

### **Slovak Republic**

Slovenská Akadémia Vied (SAV) Slovak Academy of Sciences Štefánikova 49 • 814 38 Bratislava www.sav.sk

# Agentura na podporu výskumu

a vývoja (APVV) Slovak Research and Development Agency Mytna 23 • 81107 Bratislava www.apvv.sk

### Slovenia

Slovenska Akademija Znanosti in Umetnosti (SAZU) Slovenian Academy of Sciences and Arts Novi trg. 3 • p.p. 323 • 1000 Ljubljana www.sazu.si

#### Slovenska Znanstvena Fundacija (SZF)

Slovenian Science Foundation Stefanova Ul. 15 • 1000 Ljubljana www.ustanova-szf.si

### Spain

### Consejo Superior de Investigaciones Científicas (CSIC) Council for Scientific Research Calle Serrano 117 • 28006 Madrid

www.csic.es

### Comisión Interministerial de Ciencia y Tecnología (CICYT)

Interministerial Committee on Science and Technology Ministerio de Educación y Ciencia José Abascal 4 • 28003 Madrid www.mec.es

## Sweden

#### Forskningsrådet för arbetsliv och socialvetenskap (FAS) Swedish Council for Working Life and Social Research Box 222 0 • Birger Jarls torg 5 • Riddarholmen • 103 15 Stockholm www.fas.forskning.se

# Forskningsrådet för miljö, areella

näringar och samhällsbyggande (FORMAS) Swedish Council for Environment, Agricultural Sciences and Spatial Planning Box 1206 • Kungsbron 21 • 111 82 Stockholm www.formas.se

### Kungliga Vetenskapsakademien

Royal Swedish Academy of Sciences Box 50005 • Lilla Frescativägen 4a • 104 05 Stockholm www.kva.se

# Kungliga Vitterhets Historie

och Antikvitets Akademien Royal Academy of Letters, History and Antiquities Box 5622 • Villagatan 3 • 114 86 Stockholm www.vitterhetsakad.se

#### Vetenskapsrådet (VR)

Swedish Research Council Regeringsgatan 56 • 103 78 Stockholm www.vr.se

#### VINNOVA

Swedish Agency for Innovation Systems Mäster Samuelsgatan 56 101 58 Stockholm www.vinnova.se

# Switzerland

Rat der schweizerischen wissenschaftlichen Akademien (CASS) Council of the Swiss Scientific Academies Hirschengraben 11 • Postfach 8160 3001 Bern www.cass.ch

#### Schweizerischer Nationalfonds zur Förderung der wissenschaftlichen Forschung (SNF)

Swiss National Science Foundation Wildhainweg 3 • Postfach 8232 3001 Bern www.snf.ch

### **Turkey**

#### Türkiye Bilimsel ve Teknolojik Arastırma Kurumu (TÜBITAK)

The Scientific and Technological Research Council of Turkey Atatürk Bulvari 221 • Kavaklidere 06100 Ankara www.tubitak.gov.tr

# **United Kingdom**

Arts and Humanities Research Council (AHRC) Whitefriars o Lewins Mead • Bristol BS1 2AE www.ahrb.ac.uk

#### Biotechnology and Biological Sciences Research Council (BBSRC) Polaris House • North Star Avenue Swindon SN2 1UH www.bbsrc.ac.uk

#### The British Academy

10 Carlton House Terrace London SW1Y 5AH www.britac.ac.uk

# Economic and Social Research Council (ESRC)

Polaris House • North Star Avenue Swindon SN2 1UJ www.esrc.ac.uk

#### Engineering and Physical Sciences Research Council (EPSRC) Polaris House • North Star Avenue Swindon SN2 1ET www.epsrc.ac.uk

Medical Research Council (MRC) 20 Park Crescent • London W1B 1AL www.mrc.ac.uk

#### Natural Environment Research Council (NERC) Polaris House • North Star Avenue Swindon SN2 1EU www.nerc.ac.uk

Particle Physics and Astronomy Research Council (PPARC)

Polaris House • North Star Avenue Swindon SN2 1SZ www.pparc.ac.uk

#### The Royal Society

6 Carlton House Terrace London SW1Y 5AG www.royalsoc.ac.uk

# ESF Governing Bodies and Committees Membership as at 31 December 2006

# **Executive Board**

The President, the Vice-Presidents, up to five other members elected by the Assembly on the advice of the Governing Council, and the Chief Executive make up the ESF Executive Board. This body is responsible for implementing the strategy and policy set by the Governing Council and the development of the Foundation's science policy activities.

Ian Halliday (President) United Kingdom Richard Dyer (Vice-President) United Kingdom Katherine Richardson Christensen (Vice-President) Denmark Jean-Luc Clément France Jane Grimson Ireland Amélie Mummendey Germany Mario Rinaldi Italy Kai L Simons Germany Josef Syka Czech Republic Bertil Andersson (ESF Chief Executive)

# **Governing Council**

Ian Halliday (President) United Kingdom Richard Dyer (Vice-President) United Kingdom Katherine Richardson Christensen (Vice-President) Denmark Izo Abram France Jüri Allik Estonia Ligia Amâncio Portugal Simeon Anguelov Bulgaria Raymond Bausch Luxembourg Fedor Ciampor Slovakia Fiona Devine United Kingdom Michel Dodet France Ioan Dumitrache Romania Herbert Gottweis Austria Peter Gruss Germany Arvid Hallén Norway Daniel Höchli Switzerland Boris Kamenar Croatia Norbert Kroó Hungary Dimitrios Kyriakidis Greece Andrzej Legocki Poland Martin Lyes Ireland Elsebeth Lynge Denmark Carlos Martinez-A. Spain Andreas Moleskis Cyprus Jiri Niederle Czech Republic Peter Nijkamp The Netherlands Gudrún Nordal Iceland Pär Omling Sweden John O'Reilly United Kingdom Roberto Petronzio Italy

Sigitas Rencys Lithuania Alenka Čelih Slovenia Marie-José Simoen Belgium Raimo Väyrynen Finland Ernst-Ludwig Winnacker Germany Nüket Yetis Turkey Observers: Jüri Engelbrecht All European Academies (ALLEA) John Smith European University Association (EUA) Robert-Jan Smits European Commission

# Finance and Audit Committee

Richard Dyer (Chair) United Kingdom Gheorghe Adamescu Romania Anna d'Amato Italy Raymond Bausc Luxembourg Peter Fletcher United Kingdom Venceslav Kaučič Slovenia Robert Kuhn Germany Knut Liestøl Norway Yves Terrien France Stavros Zenios Cyprus

Bertil Andersson ESF Chief Executive David Weber ESF Director of Administration and Finance

# Auditors

Public Audit Office: Frank O'Neill Ireland

Statutory Auditors: Emmanuelle Serrano KPMG Jean-Pierre Poletti KPMG



#### **ESF Science and Management Staff** (in post as at December 2006)

	Ch	nief Executive Offic	e					
	Chi Pro	ef Executive Officer ofessor Bertil Andersso	n					
Department of Administration and Finance		Director of Science and Strategy Dr. John Marks			Communications Unit			
Director of Administration and Finance Mr. David Weber	Ser Mr.	nior Science Officer Neil Williams			Director Mr. Claus No	owotny		
Director of Human Resources Ms. Catherine Lux Human Resources Manager Ms. Jacqueline Steydli		Science Officer Dr. Nina Kancewicz-Hoffman Junior Science Officer Dr. Alexis-Michel Mugabushaka						
	Per Ms	sonnal Assistant to the C . Veronica Schauinger-	EO Horne					
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Secretariats of	cretariats of Scientific Secretariats of Standing Committees						Secretariat	of ESF
Head of Unit: Dr. Niamh Connolly (MB-ESF)	Medical Sciences (EMRC)	Life, Earth and Environmental Sciences (LESC)	Physical and Engineering Sciences (PESC)	Huma (SCH)	nities	Social Sciences (SCSS)	Head of Unit: Ms. Caroline Hirst	
Head of Unit: <b>Dr. Paul Egerton</b> (EPB)	Head of Unit: Dr. Carole	Head of Unit: <b>Dr. Arja Kallio</b>	Head of Unit: Dr. Patrick	Head Dr. M	of Unit: onique	Head of Unit: Dr. Henk		
Head of Unit: Dr. Jean-Claude Worms (ESSC)	Science Officer:	Science Officer:	Science Officer:		v Head:	Science Officer:	-	
Head of Unit: Dr. Patrick Bressler	Dr. Thomas Bruhn	Dr. Astrid Lunkes	Dr. Patricia Arsene (to August 2006)	tricia Arsene Dr. Rüdiger Kl just 2006)		Dr. Frank Kuhn		
(CRAF-NUPECC)								
		Scheme	EUROCORES Coordinator Dr. Sven	ie Meł	lert			
	EUROCORES EMRC	EUROCORES	EUROCORE PESC	ES	EL	JROCORES CH	EUROCORES SCSS	
	Dr. Thomas Bruhn Dr. Mariana Resnicoff	Dr. Bernard Avril Dr. Inge Jonckhe Dr. Astrid Lunkes Dr. Daniela Turk	ere Dr. Antonel Br. Farzam Dr. Josefa (to April 200	lla Di Tra Ranjba Limeres	rapani Dr. Eva Hoogland aran Dr. Rüdiger Klein as		Dr. Frank Kuhn	

# **Standing Committees**

ESF has five Scientific Standing Committees: European Medical Research Councils (EMRC); Humanities (SCH); Life, Earth and Environmental Sciences (LESC); Physical and Engineering Sciences (PESC); and Social Sciences (SCSS).

Composed of leading scientists nominated by the ESF's Member Organisations, the Scientific Standing Committees are responsible for identifying scientific priorities, formulating strategies and developing research agendas.

# Standing Committee for the European Medical Research Councils (EMRC)

Medical research is vital for improving human health as it brings about a better understanding of the cause and effect of complex diseases. Advancing knowledge in the field also generates enormous social benefits which in turn translate into economic growth.

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. EMRC offers authoritative strategic advice for policy making, research management, ethics, and better health services. In its activities, EMRC serves as a voice of its member organisations and the European scientific community. EMRC disseminates knowledge and promotes the socio-economic value of medical research to the general public and the decision makers.

# During 2006 EMRC managed, among others, the following activities:

- SPB N°26 Research on Rheumatic Diseases
- The task force, comprising Europe's leading researchers and clinicians, along with observers from a patients' representative group and the European Medicines Agency, EMEA, has looked across the field, considering all aspects of basic research and clinical practice, and distilled its findings into five key recommendations:
- To promote a pan-European research effort for a better understanding of the molecular and cellular

basis of chronicity in rheumatic diseases for the development of curative and preventative strategies.

- To promote coordinated European studies and trials in order to evaluate the incidence and outcome of rheumatic diseases and the development of prevention strategies.
- To establish a pan-European network developing basic strategies for cell therapies of rheumatic diseases.
- To promote a pan-European research effort towards a better understanding of the molecular and cellular pathology of osteoarthritis and osteoporosis.
- To set up a Scientific Advisory Group (SAG) for rheumatic diseases at the European Medicines Agency (EMEA) with members from academia (i.e. basic, translational, clinical and epidemiological research) and patient organisations.

The aim is to provide coherent objectives for national and European funding bodies, healthcare providers, and ensure that rheumatic diseases are acknowledged as a major group of diseases within the European Commission Framework FP7.

### • SPB N°27 Structural Medicine: Glycomics

- A ESF/EMRC task force has produced a policy briefing to develop an area of research considered vital to European medicine; 'glycomics'. The briefing says that a multidisciplinary approach, to relate the structure of intrinsic glycans and glycoconjugates to their biological function, could aid the rapid development of treatments and diagnostics for a number of life threatening diseases.

Recommendations include:

A strong coordinated interdisciplinary European research effort to enhance our insights into the structure of glycans and glycoconjugates in health and disease.

The development of high throughput diagnostic tools for the rapid analysis of glycans and improved infrastructures to provide the research community with better access to information.

Investment into European interdisciplinary educational programmes aimed at training scientists in glycoscience.

#### • ESF-UB Conference Nanomedicine 2006

The Nanomedicine conference was organised 15-20 September 2006 in Sant Feliu de Guixols (ES) to foster and establish interdisciplinary exchanges in this new field of research. First in a series of biennal in-depth meetings, it gathered 110 delegates from 25 countries and further developed the recommendations of the Forward Look. The next conference will be held on 19-25 September 2008.

• Pan-European Clinical Trials Course

The course on "Pan European Clinical Trials under current EU regulations", held in Oslo (NO) on 5-6 October 2006, was attended by 134 junior clinical investigators, study nurses and data managers from 11 European countries. This highly interactive course provided a unique opportunity for high level training in compliance with Good Clinical Practice, National legislation and European regulations.

• Forum on Nanosciences

This COST EC ESF Forum took place on 19-20 October 2006 in Brussels (BE) and gave the opportunity to experts in domains such as heatlh, energy, information technology to deconstruct the myths, the challenges, and the future of the field with a European focus. The need for a coherent Pan-European approach was identified together with a dialogue with the general public.

• Pan-European Sarcoma Trials conference The conference "Moving forward in a climate of increasing economic and regulatory pressure" held in Stuttgart from 30 November until 2 December 2006 gathered 200 experts from across the world to discuss quality of life and state-of-the-art in the treatment of sarcoma patients. The challenges for pan-European academic clinical trials under current regulations were also discussed.

*More information: www.esf.org/emrc* 

Liselotte Højgaard (Chair) Denmark Vladimir Bencko Czech Republic Håkan Billig Sweden Roger Bouillon Belaium Christian Bréchot France Arturo Brunetti Italv Antonio de Bernad Miana Spain Wolfgang Fleischhacker Austria Jona Freysdottir Iceland Albert Gjedde Denmark Michel Goldman Belgium Agnès Gruart Spain Hans Lassmann Austria Dermot Kelleher Ireland Zita Ausrele Kucinskiene Lithuania Andis Nicolaides Cyprus Kresimir Pavelic Croatia H M Pinedo Netherlands Mark Palmer United Kingdom Katarina Poláková Slovak Republic

Laurentiu M Popescu Romania Charles Pull Luxembourg Nadire Yesim Cetinkaya Sardan Turkey Martin Röllinghoff Germany Daniel Scheidegger Switzerland Janez Sketelj Slovenia Miklós Tóth Hungary Andrzej Trzebski Poland Kalervo Väänänen Finland Michel Van der Rest France Eero Vasar Estonia Chrysanthos Zamboulis Greece nn Bulgaria nn Norway nn Portugal

#### **Observers:**

Julian Dow LESC representative Alan Bernstein Canadian Institutes of Health Research, Canada Roger Glass Fogarty International Center, USA Bruce A Scoggins Health Research Council of New Zealand Arnon Nagler Israel Academy of Sciences and Humanities, Israel Octavi Quintana-Trias European Commission, DG Research Edvard Peter Beem NWO, Netherlands

#### Head of Unit: Carole Moguin-Pattey

Contact: Julien Weber Tel: +33 (0)3 88 76 21 75 E-mail: emrc@esf.org

More information: www.esf.org/emrc

# Standing Committee for the Humanities (SCH)

Humanities explore the origins and products of the human capacity for creativity and communication. SCH encompass a broad spectrum of disciplines all pertaining to human consciousness, perception and interpretation of the world such as anthropology, archaeology, history, linguistics, literature, philosophy, musicology, religion and theology.

Besides utilising ESF's instruments categorised under the ESF's Strategic Plan to achieve its goals SCH also involves in the European Commission's 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 Joint Research Programmes.

In an effort to provide a tool for researchers and institutions alike to easily access and assess the scientific quality of Humanities research output, irrespective of disciplinary and linguistic boundaries, ESF and the ERA-Net's HERA project, which is under the Work Package 7 - Research Infrastructures, have made the establishment of the European Reference Index for the Humanities (ERIH) possible. Humanities research in Europe is rich in lively national linguistic and intellectual traditions. They all find their expression in scholarly publications. More information: www.esf.org/erih.

# During 2006 SCH managed, among others, in the following activities:

- The call for outline proposals for the EUROCORES programme Modelling intelligent interaction Logic in the Humanities, Social and Computational sciences (LogICCC) was launched on 13 March 2007 with a deadline of 11 May 2007. This new programme, which resulted from the 2006 call for EUROCORES themes, constitutes the fifth EUROCORES programme in the Humanities, next to The Origins of Man, Language and Languages (OMLL), BOREAS, on circumpolar research, The Evolution of Cooperation and Trading (TECT) and Inventing Europe, on the history of technology.
- Humanities Foresight. A Humanities Foresight workshop was organised in December 2006. The workshop brought together foresight theoreticians and practitioners as well as representatives of a wide range of Humanities disciplines. As a result, the SCH has agreed on a series of principles for the development of guidelines for the invitation, selection and implementation of ESF Forward Looks.

#### Gretty Mizrahi Mirdal (Chair) Denmark Luis Adão da Fonseca Portugal Ján Bakos Slovak Republic Maurice Bric Ireland Luca Codignola Italy Péter Dávidházi Hungary Leonidas Donskis Lithuania Jacques Dubucs France Peter Funke Germany Gürol Irzik Turkey Arne Jarrick Sweden Ulrike Landfester Switzerland

Kostas Gouliamos Cyprus Kirsten Drotner Denmark Joze Krasovec Slovenia Bohuslav Mánek Czech Republic Marco Martiniello Belgium Kari Melby Norway Arto Mustajoki Finland (to Nov 2006) Gudrùn Nordal Iceland (to Sep 2006) Karl Pajusalu Estonia Ilie Parvu Romania Maria del Carmen Picallo Soler Spain Walter Pohl Austria Claudine Moulin Luxembourg Naomi Segal United Kingdom Martin Stokhof The Netherlands Przemyslaw Urbanczyk Poland Mark Waelkens Belgium (to Oct 2006) Milena Zic-Fuchs Croatia Louisa-Irene Loukopoulou Greece nn Bulgaria

Subject Representative: Gisli Palsson Anthropology University of Iceland

#### Observers:

Marc Caball COST Domain Committee on Individuals, Society, Culture and Health Pascal Dissard European Commission Directorate General for Research, Unit L4 Scientific Culture and Gender Issues Etan Kohlberg Israel Academy of Sciences and Humanities, Israel Bruce Cole National Endowment for the Humanities, USA Janet E Halliwell Social Sciences and Humanities Research Council of Canada

### Head of Unit: Monique van Donzel

Research and Foresight: Rüdiger Klein

Contact: Irma Vogel Tel: +33 (0)3 88 76 71 26 E-mail: humanities@esf.org

More information: www.esf.org/human

# 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 21<sup>st</sup> century as it contributes 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 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 instruments categorised under the ESF's Strategic Plan to achieve its goals, LESC is also involved in the European Commission's backed ERA-Net projects.

# During 2006 LESC managed, among others, in the following activities:

- EuroBioFund (www.esf.org/eurobiofund), the three-year Specific Support Action (SSA), funded by the European Commission through the Sixth Framework Programme and supported by LESC and EMRC, is to help facilitate the development of new research programmes by bringing together life science researchers and funding organisations at an annual meeting, EuroBioForum. The first EuroBioForum was held on 14-15 December 2006 in Helsinki. Six Expressions of Interest selected by the Steering Committee were presented orally, and a further five were presented at the poster session.
- The contract for the FP6 proposal on Coordination Action for innovation in Life-Cycle Analysis for Sustainability (CALCAS) was finalised in Autumn 2006 and a kick-off meeting was held on 19-20 October 2006 in Bologna, Italy. CALCAS aims to advance development of Life-Cycle Analysis (LCA) approaches 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 next CALCAS workshop will be held in Leiden, the Netherlands on 13-14 June 2007.

 Preparatory workshops for the EUROCORES Themes of relevance to LESC (TOPO-EUROPE & DYNAPLAN) were held in November 2006.
 TOPO-EUROPE (4-D Topography Evolution in Europe: Uplift, Subsidence and Sea Level Change) has since been launched

Alexandre Quintanilha (Chair) Portugal Fatima Abrantes Portugal Hans Brix Denmark Stella Canna-Michaelidou Cyprus Salvatore Cannistraro Italy Reinhart Ceulemans Belgium Constantinos Doukas Greece Julian Dow United Kingdom Juan Pedro Garcia Ballesta Spain Olivier Francis Luxembourg Francoise Gaill France Josef Glössl Austria Jean-Henri Hecq Belgium Milena Horvat Slovenia Philippe Jean-Baptiste France Hefin Jones United Kingdom Aslihan Kerc Turkev Marek Konarzewski Poland Želiko Kučan Croatia Juozas Kulys Lithuania Markku Löytönen Finland John Ludden France (to Aug 2006) Peadar McArdle Ireland Stefan Mihina Slovak Republic Volker Mosbrugger Germany Jan Motlik Czech Republic Tiina Nõges Estonia Rudy Rabbinge Netherlands Adam Schultz United Kingdom (to June 2006) Hans Petter Sejrup Norway Olgeir Sigmarsson France Mark Stitt Germany Andreas Strasser Switzerland François Tardieu France Anders Tunlid Sweden Angheluta Vadineanu Romania Zoltán Varga Hungary nn Bulgaria

# **Standing Committees**

#### **Observers:**

Luc Balant COST DC-BMBS Elisabeth Guazzelli PESC representative Gerhard Haerendel ESSC Chair Lars Horn Marine Board – ESF Chair Sylvain Joffre COST DC-ESSEM Gérard Jugie EPB Chair (to March 2006) Jan Mees Marine Board - ESF Jean-François Minster Marine Board -ESF Chair (to May 2006) Kalliopi Radoglou COST DC-FPS Peter Raspor COST DC-FA Carlo Alberto Ricci EPB Chair) Dieter Schinzer COST DC-CMST Giora Simchen Israel Academy of Sciences and Humanities, Israel

Head of Unit: Arja Kallio

Contact: Jane Swift Tel: +33 (0)3 88 76 71 29 E-mail: lesc@esf.org

# Standing Committee for the Physical and Engineering Sciences (PESC)

The ESF Standing Committee for Physical and Engineering Sciences (PESC) is a transformative pan-European platform for research and competitive new ideas. PESC addresses strategic issues in fundamental science in its remit, taking societal needs and values into due account. The Committee is a unique cross-disciplinary group, from 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.

# During 2006 PESC managed, among others, in the following activities:

- European Forum on Nanosciences: The aim of the Forum was to explore the wide range of new possibilities, underlining the international and interdisciplinary character of this field. The European Forum on Nanosciences was organised by COST with the support of the European Commission, the European Parliament / Scientific Technology Options Assessment, the ERA-NET Consortium on Nanoscience in the European Research Area and the ESF. Within the ESF, PESC is taking the lead on this Interdisciplinary New Initiatives Fund (INIF). ESF-INIF funding made possible reduced registration fees for young scientists and to cover online registration and registration fee handling as well as public relation activities. The Forum took place 19-20 October 2006 in Brussels.
- Emerging new science fields: the synergy of national lights sources in Europe, a proposal to provide a platform for the European academic user community of medium size national light sources and national research facilities, in general. A Workshop will take place in 2007.
- The Final Report of the ESF Forward Look on "NanoSciences and the long-term evolution Information Technology (NSIT)" was published in December 2006 and is available from the ESF website.

Michel Mareschal (Chair) Belgium Carmen N Afonso Spain (to June 2006) Andreas Alexandrou Cyprus Jean-Marie André Belgium Roberto Battiston Italy (to June 2006) Polina Bayvel United Kingdom Venko N Beschkov Bulgaria Ian Butterworth United Kingdom (to March 2006) Pavel Chráska Czech Republic Gabriel Crean Ireland Manuel de Léon Spain Gerhard Erker Germany Stavros C Farantos Greece Walter Gear United Kingdom Elisabeth Guazzelli France Judith A K Howard United Kingdom (to April 2006)

Ivan Hubac Slovak Republic Fjola Jonsdottir Iceland René Kamermans Netherlands Sadik Engin Kilic Turkey János Kollár Hungary Ulrich Langer Austria Knut Liestøl Norway Bozidar Liscic Croatia Pasquale Lubrano Italy Elaine Martin United Kingdom Enn Mellikov Estonia Henri-Noël Migeon Luxembourg Radu Munteanu Romania Ole John Nielsen Denmark Moira C Norrie Switzerland Kaisa Sere Finland Henryk Szymczak Poland Malgorzata Tkatchenko France Peter Venturini Slovenia Dorothea Wagner Germany Michel Waroquier Belgium Håkan Wennerström Sweden

#### **Observers:**

Salvatore Cannistraro LESC representative Adriaan de Graaf National Science Foundation, USA Sir John Kingman European Mathematical Society Joseph Klafter Israel Academy of Sciences and Humanities Juan José Moreno Navarro European Research Consortium for Informatics and Mathematics (ERCIM) Lorenzo Valles-Brau European Commission, DG Research

Head of Unit: Patrick Bressler

Contact: Marie Clifford Tel: +33 (0)3 88 76 71 07 E-mail: pesc@esf.org

*More information: www.esf.org/pesc* 

# Standing Committee for the Social Sciences (SCSS)

The social sciences are key to the understanding of many of Europe's societal issues such as the balance between economic growth and impact on the environment. In other words, the social sciences examine what it means to be a social being, ranging from the minutiae of human behaviour and brain functions, to large-scale social movements, demographics, economics and politics.

SCSS aims to advance social sciences on a European level by supporting innovative research ideas and approaches coming from the scientific community. The committee encompasses a range of disciplines that examine and explain human functioning on a variety of interlocking levels, ranging from neural foundations to individual behaviour, group processes and the functioning of entire societies.

SCSS is in accord with the ESF objective to encourage cross-discipline actions. The committee is fully aware of the importance of insights gained through related disciplines such as the human, life and medical sciences, as these areas of convergence allow for a fuller understanding of the diverse facets of the social science enterprise, ranging from literary, philosophical and historical inputs, to biological and medical ones, including human biology.

More information: www.esf.org/researchareas/social-sciences/activities

# During 2006 the SCSS managed, among others, in the following activities:

• A Member Organisation Forum on promoting internationalisation of the social sciences in Central and Eastern Europe (MOCEE) was launched - a series of Expert Meetings to study the research needs of CEE countries in the social sciences, to promote the dialogue between CEE and other European scientific communities, and to develop a "catching up" strategy.

www.esf.org/research-areas/socialsciences/activities/MO-fora.html

• A second version of the report "Social Sciences in Europe" was published. It focuses on recent and current projects developed through the SCSS, and emphasises the importance of social sciences research, which addresses and provides answers to critical questions raised by today's society.

- A new Forward Look on Higher Education in Europe Beyond 2010 Resolving Conflicting Social and Economic Expectations (HELF: www.esf.org/helf) was launched in early 2006. The project aims to derive a future research agenda that will address scientific questions of long term strategic concern to the future of higher education. Theme workshops and an interim conference have been held and the project will culminate in a final conference in October 2007.
- Preparatory workshops for the EUROCORES Themes of relevance to the SCSS were held in November 2006; the two programmes Logical Modelling in Interaction, Communication, Cognition and Computation (LogiCCC: www.esf.org/logic) and Cross-National and Multilevel Analysis of Human Values, Institutions and Behaviour (HumVIB: www.esf.org/humvib) have since been launched, with calls for outline proposals.
- Along with LESC and two COST Domain Committees, the SCSS held a workshop Communicating Interests, Attitudes and Expectations at the Science / Policy Interface (CSPI): Setting Environmental Research Agendas to support Policy. A report will be published in 2007.

Gün R. Semin (Chair) Netherlands Erik Albæk Denmark (to Sept 2006) Ahmet Alkan Turkey (to Nov 2006) John Coakley Ireland Jakob De Haan Netherlands Ian Diamond United Kingdom Dalina Dumitrescu Romania Patrice Fontaine France Emmanuël Gerard Belgium Galin Gornev Bulgaria Herbert Gottweis Austria (to Nov 2006) Peter Kurrild-Klitgaard Denmark Dagmar Kutsar Estonia Volkmar Lauber Austria

Bogdan Mach Poland Inés Macho-Stadler Spain Zdenka Mansfeldová Czech Republic Silvia Miháliková Slovak Republic Ilona Pálné Kovács Hungary Vygandas Paulikas Lithuania Pasqualina Perrig-Chiello Switzerland Manfred Prenzel Germany Raija-Leena Punamäki Finland Hrafnhildur Ragnarsdóttir Iceland Asbjørn Rødseth Norway Davorin Rudolf Croatia Kerstin Sahlin-Andersson Sweden Savvas Savvides Cyprus Slavko Splichal Slovenia Georges Steffgen Luxembourg Adelino A. Torres Portugal Insan Tunali Turkey Luc Wilkin Belgium John Yfantopoulos Greece nn Italy

#### **Observers:**

Martina Hartl COST Domain Committee on Individuals, Society, Culture and Health Asher Koriat Israel Academy of Sciences and Humanities David Lightfoot National Science Foundation (NSF), United States Pierre Perrolle National Science Foundation, United States (to March 2006) Christian Sylvain Social Sciences and Humanities Research Council, Canada

Advisory Expert: Bjørn Henrichsen Norwegian Social Science Data Services

Associated Institute: Ali Kazancigil International Social Science Council, France

Head of Unit: Henk Stronkhorst

Contact: Rhona Heywood Tel: +33 (0)3 88 76 71 31 E-mail: scss@esf.org

More information: www.esf.org/social

# Expert Committees and Boards

Expert Committees provide advice and initiate strategic developments in the areas of marine-, polar-, and space sciences, nuclear physics and radio astronomy.

# Marine Board – ESF (MB-ESF)

The seas and oceans cover over 70 percent of the Earth's surface, and represent more than half of the European territory. This marine world is still relatively unexplored and its resource potential has yet to be realised.

In recognising that the oceans are of major strategic importance to the ecological, economic and social development of Europe, the Marine Board, which was established by its member organisations with the support of the European Commission in 1995, works to promote and coordinate scientific activities within the main marine research institutions in Europe. Regarded as a driving force for marine sciences in Europe, the Marine Board operates by creating a forum for its member organisations, identifying strategic scientific issues, providing a voice for European marine science and promoting synergy in the management of both national programmes and research infrastructure facilities and investments. One of the Marine Board's assets is its capacity to be proactive in identifying research priorities through establishing and supporting Expert Working Groups (WGs). These WGs are composed of high-level European experts who elaborate on marine science and technology topics which need to be addressed. In principle, the expected output from a WG results in a position paper, subsequently used at national and European levels to catalyse research programme priorities.

2007 will see the relocation of the Marine Board Secretariat from Strasbourg, France to the Flanders Marine Institute (VLIZ) in Ostend, Belgium, in association with the secretariats of EFARO (European Fisheries and Aquaculture Research Organisations) and the Intergovernmental Oceanographic Commission's Marine Data Management Training Programmes.

# During 2006 the Marine Board managed, in the following activities among others:

• The Marine Board published Position Paper n°8

"Navigating the Future III" (November 2006). This document summarises thematic priorities for marine research, suitable for inclusion in the 7th Framework Programme and future national strategies, within the context of developments of the future European Maritime Policy. Navigating the Future III received an enthusiastic response from European Commission representatives during its official launch on 16 January 2007 in Brussels, at a seminar, entitled "Marine Science and Technology in the 7th Research Framework Programme" and has been quoted in several speeches by Commissioner Joe Borg and Commission officials.

• With regard to the development of the European Maritime Policy and the response process to the Commission's Green Paper (published on 7 June 2006), the Marine Board submitted its response to the Maritime Policy Task Force of D.G. Fisheries and Maritime Affairs.

**Executive Committee:** 

# Up to May 2006

Jean-François Minster (Chair) France Jan W. de Leeuw (Vice-Chair) Netherlands Philip Newton (Vice-Chair) United Kingdom Geoffrey O'Sullivan (Vice-Chair) Ireland Mario Ruivo (Vice-Chair) Portugal

#### From June 2006

Lars Horn (Chair) Norway Kaisa Kononen (Vice-Chair) Finland Jan W. de Leeuw (Vice-Chair) Netherlands Jan Mees (Vice-Chair) Belgium Kostas Nittis (Vice-Chair) Greece

# Member Organisations:

Fonds zur Förderung der wissenschaftlichen Forschung Austria Österreichische Akademie der Wissenschaften Austria Fonds National de la Recherche Scientifique Belgium Fonds voor Wetenschappelijk Onderzoek - Vlaanderen Belgium Statens Naturvidenskabelige Forskningsråd Denmark Suomen Akatemia/Finlands Akademi Finland Centre National de la Recherche Scientifique France Institut Français de Recherche pour l'Exploitation de la Mer France Deutsche Forschungsgemeinschaft Germany

Deutscher Forschungszentren Germany Hellenic Centre for Marine Research Greece Marine Institute Ireland Consiglio Nazionale delle Ricerche Italy Istituto Nazionale di Oceanografia e di Geofisica Sperimentale Italy Koninklijke Nederlandse Akademie van Wetenschappen Netherlands Nederlandse Organisatie voor Wetenschappelijk Onderzoek Netherlands Havforskningsinstituttet Norway Norges Forskningsråd Norway Polska Akademia Nauk Poland Gabinete de Relações Internacionais da Ciência e do Ensino Superior Portugal Consejo Superior de Investigaciones **Científicas** Spain

Hermann-von-Helmholtz-Gemeinschaft

Instituto Español de Oceanografia Spain Vetenskapsrådet Sweden Türkiye Bilimsel ve Teknik Arastırma Kurumu Turkey Natural Environment Research Council

# Head of Unit:

United Kingdom

# Niamh Connolly Contact:

Tel: +33 (0)3 88 76 21 86 E-mail: marineboard@esf.org More information: www.esf.org/marineboard

# European Polar Board (EPB)

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 2007-2008, a global event focusing on the importance of the Polar Regions for humankind. Major focus areas will be 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.

# During 2006 EPB managed, among others, in the following activities:

- The EPB was preparing the ESF European launch event for the International Polar Year at the European Parliament in Strasbourg on 26 February 2007. The event was attended by a special representative of President Putin, the Deputy Chairman of the State Duma of the Russian Federation, Dr Artur Chilingarov, plus 100 policy and science representatives. The event covered all areas of science and involved all of the Standing and Expert Boards and Committees of the European Science Foundation.
- A brochure on Europe's role in the International Polar Year was produced by the European Polar Board, and a short film covering the ESF European launch event at the European Parliament. The EPB Head of Unit Dr. Paul Egerton recorded an audio podcast for the new website of ESF, on the subject of ESF and Europe's contribution to the International Polar Year.

**Executive Committee:** 

Gérard Jugie (Chair) France (to April 2006) Carlo Alberto Ricci (Chair) Italy Anders Karlqvist (Vice-Chair) Sweden Hanne K Petersen (Vice Chair) Denmark Jan Stel (Vice-Chair) Netherlands

#### Member Organisations:

Fonds zur Förderung der wissenschaftlichen Forschung Austria Österreichische Akademie der Wissenschaften Austria Fonds National de la Recherche Scientifique Belgium Fonds voor Wetenschappelijk Onderzoek – Vlaanderen Belgium Bulgarian Antarctic Institute Bulgaria Masarykova univerzita v Brne – Vyzkumne pracoviste polarni ekologie Czech Republic Ceska Geograficka Spolecnost Czech Republic Kommissionen for videnskabelige Undersøg-elser i Grønland Denmark

Estonian Academy of Sciences – Estonian Polar Committee Estonia Suomen Akatemia/Finlands Akademi Finland **Institut Polaire Français** Paul Émile Victor France Centre National de la Recherche Scientifique France **Deutsche Forschungsgemeinschaft** Germany Hermann-von-Helmholtz-Gemeinschaft Deutscher Forschungszentren Germany Programma Nazionale Di Ricerche In Antartide Italy Fonds National de la Recherche Scientifique Luxembourg Koninklijke Nederlandse Akademie van Wetenschappen Netherlands Nederlandse Organisatie voor Wetenschappelijk Onderzoek Netherlands Norges Forskningsråd Norway Norsk Polarinstitutt Norway Polska Akademia Nauk Poland Arctic & Antarctic Research Institute of Roshydromet Russian Federation Consejo Superior de Investigaciones **Científicas** Spain Oficina de Ciencia y Tecnología Spain Kungliga Vetenskapsakademien Sweden Polarforskningssekretariatet Sweden Vetenskapsrådet Sweden **Natural Environment Research Council** U.K.

Head of Unit: Paul Egerton Tel: +33 (0)3 88 76 21 65 E-mail: epb@esf.org

More information: www.esf.org/epb

# 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.

The ESSC remains just as 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 Ministerial Councils, and in the EC's FP7 Space Advisory Group. 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 May 2007 the ESSC will have a new Chair, Prof. Jean-Pierre Swings, 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.

# During 2006 ESSC managed, among others, in the following activities:

• ESSC was preparing the Strategic Plan 2007-2010, which was published in March 2007. The Charter under which the ESSC operated since 1999 had become inadapted to the new range of activities and to the role it now plays in Europe, as befits its numerous ex officio participations in ESA or EC high-level bodies. To make a difference in the future the Committee needs the resources to deliver, and the status to provide acceptable strategic views. This need for increased resources has been addressed at the annual meeting of ESSC funding institutions, and met with a positive reaction. • At the request of ESA, ESSC has conducted in 2005 and early 2006 a strategic assessment of the science component of its Aurora programme. In 2007 the ESSC will complement this exercise by formulating a long-term science scenario for Aurora, also at ESA's request. The objective of Aurora is to formulate and implement a European long-term plan for robotic and human exploration of solar system bodies holding promise for traces of life.

Willy Benz Switzerland Bernard Billia France Roger Bouillon Belgium Roger M Bonnet ex officio COSPAR President Bruno Carli Italy Angioletta Coradini Italy Karsten Danzmann Germany Michel Deshayes France Hans Jörg Fecht Germany Monica Grady United Kingdom Matt Griffin United Kingdom Gerhard Haerendel (Chair) Germany Anthony Hollingsworth Ireland + UK Per Borth Lilje Norway José Miguel Mas-Hesse Spain Peter Norsk Denmark Göran Scharmer Sweden Sabine Schindler Austria Christiane Schmullius Germany Kai-Uwe Schrogl Germany Catherine Turon France Michel Vauclin France Manuel G. Velarde Spain Karel Wakker Netherlands Frances Westall France

Liaison: Françis Olivier LESC representative

# Head of Unit: Jean-Claude Worms Contact: Carole Mabrouk Tel: +33 (0)3 88 76 71 69

E-mail: essc@esf.org More information: www.esf.org/essc

# Committee on Radio Astronomy Frequencies (CRAF)

Established in 1988, CRAF represents all the major radio astronomical observatories in Europe. Its mission is to coordinate activities to keep the frequency bands used by radio astronomers in Europe 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 continued increase in global use of the electromagnetic spectrum for both terrestrial and space-borne communications.

At the European level, the committee plays a key role in defining, coordinating and representing the radio frequency needs of the radio astronomy community. At a worldwide level, CRAF is a Sector Member of the ITU (International Telecommunication Union).

# During 2006 CRAF managed, among others, in the following activities:

- Preparation of an European position for the ITU-R World Radiocommunications Conference 2007, WRC-07
- Assessment of regulatory standards for compatibility with applications using the Ultra Wideband Transmission technology. This is a very threatening new system even for active services and could severely degrade radioastronomical observations in most of the frequency bands assigned to our service
- Preparation of a report on "a coordinated EU Spectrum approach for the scientific use of the radio spectrum", and to the remarks following from the consultation process opened by the Radio Spectrum Policy Group of the European Commission
- Revision of the European Common Allocations tables of frequencies
- Work of ITU-R Study Group 7, namely Working Party 7D dedicated to Radio Astronomy.

Laurentiu Alexe (Frequency Manager) Roberto Ambrosini (Chair) Italy Rafael Bachiller Spain Valery Bezrukov Latvia Pietro Bolli (Secretary) Fredric Clette Belgium R James Cohen United Kingdom (deceased Nov 2006) André Deschamps France Luis Manuel dos Santos Rocha Cupido Portugal Boris A Doubinski Russian Federation Istvan Fejes Hungary Ernst Fürst Germany Axel Jessner Germany Karel Jiricka Czech Republic Alexander Konovalenko Ukraine Ibrahim Küçük Turkey Michael Lindqvist Sweden Robert Millenaar Netherlands Christian Monstein Switzerland **D** Morris France J P V Poiares Baptista Netherlands Jouko Ritakari Finland Paul Scott United Kingdom John Seiradakis Greece Jerzy B Usowicz Poland Wim van Driel France Gudmund Wannberg Sweden

#### Observers:

**Tomas Gergely** National Science Foundation, USA

Scientific Secretary:

Patrick Bressler Contact:

Carole Mabrouk Tel: +33 (0)3 88 76 71 69 E-mail: cmabrouk@esf.org More information: www.esf.org/craf

# Nuclear Physics European Collaboration Committee (NuPECC)

This Expert Committee's tasks are to strengthen European collaboration in nuclear physics and science; define a network of complementary facilities within Europe and encourage optimisation of their usage; provide a forum for the discussion of the provision of future facilities and instrumentation; and issue recommendations on the development, organisation, and support of European nuclear physics, and of particular projects.

NuPECC regularly publishes reports on relevant 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 the 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 pamphlets, books and CDs have been produced. NuPECC also continues to work closely with nuclear physics research networks supported via the Framework Programmes of the European Commission. Through its quarterly magazine, Nuclear Physics News International, NuPECC provides an important forum for discussing nuclear science.

# During 2006 NuPECC managed, among others, in the following activities:

- NuPECC established a Working Group in order to support preparations for FP7 within the community. The Working Group met with Coordinators of projects running in FP6 and representatives of the EU Commission in Brussels on 9 March 2006.
- International Collaboration: NuPECC prepared a new survey on resources in nuclear physics in Europe. A questionnaire was sent out to more than 180 nuclear physics institutes in the NuPECC member states. The evaluation is in progress. This survey represents the European part of an international initiative pursued by the Commission C12 (Nuclear Physics) of the International Union of Pure and Applied Physics (IUPAP).
- In addition, NuPECC participates in the nuclear physics working group of the Global Science Forum of OECD. Professor B. Fulton presented the NuPECC Roadmap at the first meeting in Washington on 6-7 March 2006, as well as at the following meeting in Rome on 10-11 October 2006. The NuPECC Survey was also part of the agenda of that meeting.

Brian R Fulton (Chair) United Kingdom Gabriele-Elisabeth Körner (Secretary) Germany Claude Amsler Switerland Jean-Paul Blaizot ECT\* Trento, Italy Tullio Bressani Italy Roman Caplar Croatia Jan Dobes Czech Republic Ana Maria Eiró Portugal Graziano Fortuna Italy Jorgen Gaardhoje Denmark Dominique Goutte France Dominique Guillemaud-Mueller France Hans-Ake Gustafsson Sweden Bernard Haas France Sotirios Harissopulos Greece

Paul-Henri Heenen Belgium Walter Henning Germany Rauno Julin Finland Attila Krasznahorkay Hungary Thomas Peitzmann The Netherlands Alfredo Poves Spain Dieter Röhrich Norway Günther Rosner United Kingdom Hans Ströher Germany Jan Styczen Poland Jochen Wambach Germany Eberhard Widmann Austria Nicolae Victor Zamfir Romania

#### Observers:

**Rezsö Lovas/Matti Leino** (alternate) Nuclear Physics Board, European Physical Society (EPS)

Scientific Secretary: Patrick Bressler Contact: Carole Mabrouk Tel: +33 (0)3 88 76 71 69 *E-mail: cmabrouk@esf.org* More information: www.esf.org/nupecc



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 addresses the growing demand for cooperation across national borders and across research disciplines. It complements the European Union's Framework Programme. COST has one of the largest frameworks for research cooperation in Europe, supporting more than 30,000 scientists.

Since 1971 COST has brought together research teams from different countries to work on specific topics. 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.

COST, with 34 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.

In 2006, COST has introduced a new process of presenting proposals for new Actions, making the process as transparent as possible. The purpose of if is to foster quality through competition and have greater visibility for the research. The underlying continuous "Open Call" is thematically open to any topics, maintaining the "bottom-up" principle.

In October 2006, COST designated the ESF as the legal entity to act as the implementing agent for COST during the seventh Framework Programme (2007-2013). The ESF will continue to provide the scientific, technical and administrative secretariat through the COST Office to COST Domain Committees and to COST Actions during this period. The budget allocated for this contract will €210 M following the be at least recommendations of the 2010 Mid-Term-Review. COST has also been building links with the European Parliament by organizing exchanges along side an exhibition in the European Parliament from 18th to 21st April 2006 with the participation of the Commissioner for research and technological development, Dr Janez Poto\_nik, of the Chair of the European Parliament's Committee on Industry, Research and Energy (ITRE), Mr Giles Chichester, of Professor Jerzy Buzek, the Rapporteur to the European Parliament for FP7 and ESF's CEO Prof. Bertil Andersson.

The European scientific community continues to look at COST as a "fast, efficient, effective, flexible framework to bring European researchers together, under light strategic guidance, to let them work out their ideas". This was confirmed by a survey which showed that "if COST did not exist, it would be necessary to invent it". The interest of the European scientific community in COST has been recently confirmed by the overwhelming response to the COST Call for Proposals launched in May 2006 where more than 800 preliminary proposals were received for the selection of 39 new COST Actions.

### During 2006, COST:

- supported the networking of scientists by funding meetings with some 29,000 participating and reimbursed scientists from the 200 running COST Actions
- supported Short-Term Scientific Missions (exchange visits) allowing COST Action members, in particular young researchers, to gain experiences in other participating institutions
- enhanced its cooperation with institutions from non-COST countries with improved support schemes to foster new partnerships with scientific groups in the mutual interest from all over the world.
- the Open Call was launched in April 2006 in particular targeting new interdisciplinary ideas by early stage scientists
- continues to implement the new COST Grant System which will be finalised by 2008. It will provide the COST Actions with a comprehensive web-based project management tool to increase flexibility and to facilitate the reporting requirements.

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

In order to provide the latest available information on ESF Finances, the 2006 accounts are published in this annual report.

The accounts were presented to and discussed by the ESF Finance and Audit Committee at its March 2007 meeting. Any modification requested will be clearly identified in the 2007 report.

### **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 control, 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 break down 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 43 percent of the total expenditure in 2006, for the support of EUROCORES, the coordination of the EURYI scheme and the participation in several other EC programmes.

# Overall comments on 2006 Income and Expenditure

2005 was a transition year during which ESF consolidated its positions after the growth achieved in previous years, and managed around  $\in$ 41 million. In 2006, a further increase of 8.5 percent was achieved, to reach an overall level of funding of  $\in$ 44.6 million at the end of the year, as shown in

the Consolidated Income and Expenditure Statement (Table 2 and Chart 1).

Adjusted with the necessary provisions for contingencies and anticipated overhead, ESF globally ends the year with a consolidated result amounting to -€36k in the management accounts.

The statutory accounts, detailed in **Tables 4 & 5**, show a consolidated excess of income of  $\in$ 1 083k at year end, which is reconciled to the - $\in$ 36k result in **Table 6**.

The development of income mainly relates to activities within the General budget, the ESF Research Networking programmes through an increased number of active programmes, the EUROCORES support contract and the continued participation in several ERA-Nets contracts. The main decrease in income relates to the ESF Research Conferences, due to a new partnerbased model for which 2006 was the first year of implementation.

The evolution in expenditure is in line with the objectives defined in the strategy and with the necessary means to continue managing the responsibilities attached to the EC Contracts.

General budget expenditure in science activities includes developments in foresight activities (Forward Looks and Exploratory Workshops) and quality assurance (evaluation of instruments and activities).

At the same time, employment costs and running expenses of the General Budget were maintained at their expected level.

The evolution of expenditure in other budget components is coherent with the further developments in the coordination of EUROCORES and other ERA-Nets.

### Overall comments on the 2006 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.
As a matter of caution, liabilities include provisions for contingencies built in the management accounts to face possible risks attached to the running of external contracts.

# The following tables provide a consolidated overview of all funds managed by ESF in 2006:

## **Budget Structure**

Table 1: Detailed structure

## **Key Figures**

Chart 1: Consolidated Expenditure and detail of Science Activities Funded by the General Budget

## Management Accounts

**Table 1: Budget Structure** 

Table 2: Income and Expenditure StatementTable 3: Balance Sheet

#### **Statutory Accounts**

Table 4: Income and Expenditure Statement Table 5: 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 component	Related activities	Sources of funding
General Budget	<ul> <li>Basic activities that are essential for the proper implementation of the ESF mission</li> <li>Quality control</li> <li>Running of the Office and general infrastructure</li> </ul>	<ul> <li>Contributions from MOs</li> <li>Other internal income (Financial earnings)</li> <li>Overheads from external contracts</li> </ul>
À la carte	<ul> <li>Specific activities such as Programmes and Expert Boards</li> </ul>	<ul> <li>Contributions from MOs on an à la carte basis</li> </ul>
Partnerships	Partnership activities such as Conferences	<ul> <li>Partners' contributions</li> <li>Contribution from General Budget</li> <li>Participation fees</li> </ul>
Contracts with external parties	<ul> <li>Support for the coordination of programmes such as EUROCORES, EURYI, EuroBioFund and ERA Nets</li> <li>Management of scientific secretariats for activities such as COST</li> </ul>	Grants from the European Commission





Science activities funded by ESF General Budget

**Consolidated expenditure** 

# Finance

## Table 2: Consolidated Income and Expenditure Statement (in $k{\ensuremath{\in}})$

			2006 Balanc
Expenditure	2005	2006	
General Budget	11 607	12 489	-40
Expenditure	9 025	10 514	
<ul> <li>Science, Science Policy and Strategy</li> </ul>	3 319	4 100	
Employment Costs	4 647	5 292	
Running Expenses, Equipment & Maintenance	1 059	1 122	
ESF Management Provisions for Contingencies linked to EC contracts	1 821	1 095	
Residual costs from EC contracts	761	880	
Account for Closed Programmes	1 073	1 381	4
Expenditure	83	410	
Allocation to dedicated funds	990	971	
ESF Research Networking Programmes	3 986	4 938	
• Expenditure	3 986	4 938	
A La Carte Expert Committees	782	754	
• Expenditure	782	754	
ESF Research Conferences	1 491	1 292	
• Expenditure	1 491	1 292	
COST Contract	18 733	19 577	
Direct incurred expenditure	16 606	17 544	
Depreciation of fixed assets	87	93	
Accrued expenses	2 040	1 940	
EUROCORES Support Contract	2 130	2 957	
Direct Expenditure	2 130	2 957	
EURYI Support Contract	479	463	
Direct Expenditure	479	463	
Other EC Contracts	487	702	
Direct Expenditure	487	702	
TOTAL Expenditure	40 768	44 553	-36

alance			
	Net Income	2005	2006
-40	General Budget	11 613	12 449
	Internal Income	7 072	7 809
	Contributions from Member Organisations	6 335	6 652
	Additional Contributions	21	2
	ESF Administrative Overhead	462	545
	<ul> <li>Financial earnings of the year</li> <li>Liss of Dravisions and dedicated funds</li> </ul>	188	235
	Ose of Provisions and dedicated funds	00	375
	External Funding	4 541	4 640
4	Account for Closed Programmes	1 078	1 385
	<ul> <li>Transfer from Closed Programmes</li> </ul>	240	392
	Other Income	0	3
	<ul> <li>Reversal of dedicated funds</li> </ul>	838	990
	ESF Research Networking Programmes	3 986	4 938
	Contributions to ESF Research Networking Program	nmes 3 986	4 938
	A La Carte Expert Committees	782	754
	Contributions to A La Carte Expert Committees	782	754
	ESF Research Conferences	1 491	1 292
	Conference Fees	544	349
	European Union Grants	283	0
	Sponsoring and Miscellaneous income     Contributions from Constal Budget	281	423
		303	520
	COST Contract	18 733	19 577
	EC Contribution	22 821	23 252
	Bank interest	82	195
	Ourier contributions     Overbead on Direct expenditure	-4 170	-3.870
	• Overhead on Direct expenditure	-4 170	-0 070
	EUROCORES Support Contract	2 130	2 957
	EC Contribution	2 466	3 376
	Overhead on Direct expenditure	-367	-496
	FURYI Support Contract	479	463
	EC Contribution	468	556
	Bank interest	15	11
	<ul> <li>Overhead on Direct expenditure</li> </ul>	-4	-104
	Other EC Contracts	487	702
	EC Contribution	487	863
	Bank interest	-	9
	Overnead on Direct expenditure	0	-170
-36	TOTAL Income	40 779	44 517

## Table 3: Consolidated Balance Sheet (in k€)

Assets	2005	2006
Fixed assets	1 650	1 672
Receivables	2 412	3 680
Cash Positions	18 142	24 229
Securities	17 121	23 895
Cash at banks	1 021	334
Total Assets	22 204	29 581

Liabilities	2005	2006
Working Capital	707	713
Reserve on Account for Closed Prog.	612	617
Grants received for building works	850	807
Dedicated Funds	1 275	1 160
Provisions	3 540	4 725
Payables	6 509	7 250
Received in advance and committed	8 700	14 345
Final Balance	11	-36
Total Liabilities	22 204	29 581

## Table 4: Statutory Income and Expenditure Statement (in $\in$ )

	2005	2006	
OPERATING REVENUES			
CONTRIBUTIONS	38 262 943	41 201 180	
USE OF PROVISIONS	67 227	27 000	
TOTAL OPERATING REVENUES	38 330 171	41 228 180	
OPERATING EXPENSES			
PURCHASES	385 342	373 645	
EXTERNAL CHARGES	26 905 596	29 328 335	
TAXES	637 435	610 175	
EMPLOYMENT COSTS	5 993 224	6 766 148	
SOCIAL CONTRIBUTIONS	2 531 114	3 065 755	
DEPRECIATION OF FIXED ASSETS	198 635	265 774	
PROVISIONS	67 751	237 733	
OTHER CHARGES	139 646	173 930	
TOTAL OPERATING EXPENSES	36 858 743	40 821 496	
OPERATING EARNINGS	1 471 427	406 683	
FINANCIAL INCOME	316 602	529 398	
FINANCIAL EXPENSES	1 995	7 045	
FINANCIAL CONTRIBUTION	314 607	522 353	
EXCEPTIONAL INCOME	0	42 505	
EXCEPTIONAL EXPENSES	5 217	4 323	
EXCEPTIONALCONTRIBUTION	-5 217	38 182	
INTERMEDIATE BALANCE	1 780 817	967 218	
REVERSAL OF DEDICATED FUNDS	1 129 894	1 275 283	
ALLOCATION TO DEDICATED FUNDS	1 275 283	1 159 724	
ALLOCATION TO DEDICATED FONDS	1 275 283	1 159 724	

## Table 5: Statutory Balance Sheet (in €)

	ASSETS	2005		2006		
		NET	GROSS	DEPR	NET	
	INTANGIBLE ASSETS Softwares TANGIBLE ASSETS	601 1 641 806	16 933 2 613 755	15 631 951 452	1 302 1 662 303	nds
<b>Fixed Assets</b>	FINANCIAL ASSETS Guarantee deposits	7 330	8 755		8 755	Association Fu
	TOTAL I	1 649 737	2 639 442	967 082	1 672 360	
	ADVANCE PAYMENTS	60 696	510 521		510 521	JS
	RECEIVABLES Customers and related accounts	982 740	1 710 376	267 496	1 442 879	Provisio
ets	Other receivables	340 297	840 146		804 146	spu
nt Asse	SECURITIES	17 120 558	23 894 892		23 894 892	ated fu
Curre	CASH AT BANK	1 021 581	333 958		333 958	Dedic
	PREPAYMENTS	1 028 345	921 981		921 981	
	TOTAL II	20 554 217	28 175 874	267 496	27 908 377	
		00.000.054	20.045.040	1 004 570	00 500 707	Payables
	GENERAL TOTAL (I + II)	22 203 954	30 815 316	1 234 579	29 580 737	

LIABILITIES	2005	2006
WOBKING CAPITAL		
CAPITAL ENDOWMENT	223 910	223 910
BALANCE BROUGHT FORWARD	553 214	4 394 176
CURRENT YEAR EXCESS OF INFLOW OVER USE	1 635 429	1 082 777
ACCUMULATED EXCESS OF USE OVER INFLOW	2 222 057	0
RESERVE ON ACCOUNT		
FOR CLOSED PROGRAMMES	601 486	618 009
INVESTMENT SUBSIDIES	850 100	807 595
TOTAL I	6 086 195	7 126 467
PROVISIONS FOR CONTINGENCIES		
AND CHARGES	368 900	459 481
DEDICATED FUNDS	1 275 283	1 159 724
	1 0 1 1 1 0 0	4 040 005
TOTAL II	1 644 183	1 619 205
SUPPLIERS AND BELATED ACCOUNTS	1 559 191	2 074 101
SOCIAL AND TAX LIABILITIES	1 728 765	1 845 064
OTHER PAYABLES	3 221 289	3 330 832
RECEIVED IN ADVANCE AND COMMITTED	7 964 331	13 585 067
TOTAL III	14 473 576	20 835 065
GENERAL TOTAL (I + II + III)	22 203 954	29 580 737

## Table 6: Reconciliation Statutory and Management Accounts (in k€)

Result in Management IES (1)	-36	
Provisions for Contingencies built in Management Accounts	1 095	
Variation of anticipated overheads accounted for in Statutory Accounts	24	
Surplus in Statutory IES	1 083	

(1) IES : Income and Expenditure Statement

## Table 7: Scale of Contributions

Country	2006	2007
Austria	2.16	2.16
Belgium	2.53	2.58
Bulgaria	0.30	0.31
Croatia	0.32	0.33
Cyprus	0.20	0.20
Czech Republic	0.84	0.87
Denmark	2.10	2.05
Estonia	0.22	0.22
Finland	1.42	1.42
France	14.40	14.33
Germany	19.71	19.36
Greece	1.45	1.48
Hungary	0.76	0.80
Iceland	0.18	0.18
Ireland	1.45	1.48
Italy	11.62	11.64
Lithuania	0.24	0.24
Luxembourg	0.31	0.31
Netherlands	4.18	4.16
Norway	1.92	1.90
Poland	1.89	1.80
Portugal	1.36	1.36
Romania	0.54	0.56
Slovakia	0.34	0.41
Slovenia	0.36	0.37
Spain	6.81	7.06
Sweden	2.63	2.70
Switzerland	2.74	2.68
Turkey	1.84	2.02
United Kingdom	15.19	15.02
Total	100.00	100.00

Over the past four years, the staff size of the ESF has more than doubled. Starting as a small organisation with a strong family culture, the ESF has undergone a considerable transformation and witnessed a rapid growth in its activities.

To accommodate the increase in activities the Assembly approved the ESF's new Strategic Plan 2006-2010 in November 2005. This ambitious plan has understandably brought on a lot of new and challenging objectives for the ESF staff. These challenges require changes which allow the ESF to demonstrate continuous improvement in professionalism, high-quality science and streamlined administrative processes.

In an effort to help the organisation and its staff to meet these objectives the Human Resources unit initiated a series of management and staff training sessions in 2006. During these training sessions ESF employees were participating in in-depth training course designed to improve quality, effectiveness and accountability.

ESF is an avid believer that staff development is an investment which translates into excellence. Or in other words, human capital is an essential component for the delivery of ESF's Mission and Strategy.

In 2006, a series of measures in the management of Human Resources have been initiated and implemented following the priorities defined in the Human Resources Plan published beginning of 2006. These include

- the definition of an adapted *job structure* enabling career development;
- the development of *standardised job profiles* defining the responsibilities of each position and focusing on the specific and technical competences needed to be successful for an efficient implementation of the ESF Strategic Plan;
- the progressive implementation of an improved *recruitment strategy* and the development of an attractive *"Jobs"* web page by the Communications Unit;
- the strengthening of the *performance-based management process* ensuring the cascading down of ESF yearly priorities at the level of each staff member in the organisation as well as the identification of the development and training needs to achieve the identified objectives. This process will continue to be developed in 2007.

The table, below, shows the overall evolution of staff in Full-Time Equivalents. ESF staff has more than doubled since 2003, with the increase being mainly supported by external funding such as the COST and EUROCORES contracts. In line with the Strategic Plan, the strong focus has been on science and science support staff. The limited evolution in General Administration staff supported by the General Budget has enabled the strengthening of professional competences within Human Resources and Finance. A reduction in General Administration staff funded from other sources was achieved as a result of further important improvements in automation and electronic processing of operations, in particular between the Strasbourg and Brussels offices.

## Evolution of Staff par Category and per Source of Funding

	2005 FTE Actual	2006 FTE Actual	FTE Evolution 2006-2005
Science & science management	41.7	43.6	1.9
GB	14.0	13.2	-0.8
Other Sources	27.7	30.4	2.7
Administrative support for Science	46.2	54.1	7.9
GB	21.0	22.4	1.4
Other Sources	25.2	31.7	6.5
General Administration	28.4	28.7	0.3
GB	19.0	21.6	2.6
Other Sources	9.4	7.1	-2.3
Total ESF Staff (full time equivalents)	116.3	126.4	10.1
GB	54.0	57.2	3.2
Other Sources	62.3	69.2	6.9

## **Publications in 2006**

The ESF disseminates information about its activities through a variety of channels, including a wide range of publications. Listed here is a selection of publications resulting from ESF activity in 2006.

Up-to-date information on the Foundation's publications is also available at its web site: www.esf.org either to download or to order.

## **Corporate publications**



ESF Strategic Plan 2006-2010 26 pp. ISBN 2-912049-53-9. ESF, Strasbourg, France, May 2006



ESF Annual Report 2005 76 pp. ISBN 2-912049-54-7. ESF, Strasbourg, France, June 2006



ESF Calls for Proposals 2006

Opportunities for Europe-Wide Collaborations 6 pp. ESF, Strasbourg, France, June 2006



Setting Science Agendas for Europe 20 pp. ESF, Strasbourg, France, July 2006



ESF Policy Briefing N° 26: Rheumatic Diseases – a Major Challenge for European Research and Health Care 4 pp. ESF, Strasbourg, France, June 2006



ESF Policy Briefing N° 27: Structural Medicine: The Importance of Glycomics for Health and Disease 6 pp. ESF, Strasbourg, France, July 2006





## EuroBioFund

About the ESF 2006

July 2006

68 pp. ESF, Strasbourg, France,

EuroBioForum Helsinki, 14-15 December 2006 6 pp. ESF, Strasbourg, France, July 2006

4th Call for Applications 6 pp. ESF, Strasbourg,

## Standing Committee for the **European Medical Research Councils (EMRC)**



**ESF Policy** Briefing No 26: Rheumatic Diseases - a **Major Challenge** for European **Research and** Health Care 4 pp. ESF, Strasbourg, France, June 2006



**ESF Policy** Briefing No 27: Structural Medicine: The Importance of **Glycomics for** Health and Disease 6 pp. ESF, Strasbourg, France, July 2006



#### EURYI

France, September 2006

## Standing Committee for the Humanities (SCH)



Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean (ARCANE) An ESF Research Networking Programme 8 pp. ESF, Strasbourg, France, March 2006



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#### Representations of the Past: The Writing of National Histories in Nineteenth and Twentieth-Century Europe (NHIST) An ESF Research

An ESF Research Networking Programme – Newsletter 46 pp. ESF, Strasbourg, France, October 2006



### Consciousness in a Natural and Cultural Context (CNCC)

An ESF EUROCORES Programme 6 pp. ESF, Strasbourg, France, November 2006





Representations of the Past: The Writing of National Histories in Nineteenth and Twentieth-Century Europe (NHIST) History of Historiography International review. 2006, 50 144 pp. ISBN 978-88-16-72050-3. Published by Jaca Book, 2006

#### Philosophical and Foundational Problems of Modern Physics (PMP) Studies in History and Philosophy of

## Modern Physics Studies in History and

Philosophy of Science Part B Special Issue – The Arrows of Time, 2006 Volume 37, Number 3, September 2006 395-576 pp. ISSN 1355-2198, 2006

From Natural Philosophy to Science 1200-1700 (NPHS) Transmitting Knowledge – Words, Images and Instruments in Early Modern Europe

Edited by S Kusukawa and I Maclean 274 pp. ISBN 0-19-928878-X. Published by Oxford University Press, United Kingdom, 2006

82 ESF Annual Report 2006

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

## Standing Committee for the Physical and Engineering Sciences (PESC)



Dynamic Nuclear Architecture and Chromatin Function (EuroDYNA) 2006 Networking Activities An ESF EUROCORES Programme 6 pp. ESF, Strasbourg, France, October 2006



Self-Oranized NanoStructures (SONS) An ESF EUROCORES Programme 8 pp. ESF, Strasbourg, France, October 2006



#### European Food Systems in a Changing World An ESF-COST Forward

An ESF-COST Forward Look Flyer, 2 pp. ESF, Strasbourg, France, November 2006 Joint activity between ESF (LESC, EMRC, SCH and SCSS) and COST



#### Fundamentals of NanoElectronics (FoNE)

An ESF EUROCORES Programme 6 pp. ESF, Strasbourg, France, October 2006



European Computational Science: the "Lincei Initiative": from computers to scientific excellence An ESF Forward Look Flyer, 2 pp. ESF, Strasbourg, France,

November 2006

# **Standing Committee for the Social Sciences (SCSS)**



#### Globalizing Europe Economic History Network (GLOBALEURONET)

An ESF Research Networking Programme 8 pp. ESF, Strasbourg, France, August 2006



## Family Support for Older People: Determinants and Consequences (FAMSUP)

Family care for older people in the thirteen European countries An ESF Scientific Network report 16 pp. ESF, Strasbourg, France, November 2006



# Social Sciences in Europe

An ESF Standing Committee for the Social Sciences (SCSS) report 2006-2007 24 pp. ISBN 2-912049-55-5 ESF, Strasbourg, France, October 2006



Higher Education in Europe beyond 2010: Resolving Conflicting Social and Economic Expectations

An ESF Forward Look Flyer, 2 pp. ESF, Strasbourg, France, November 2006 Joint activity between SCH and SCSS



TransEurope Research Network: Transnationalisation and Changing Life Course Inequality in Europe (TransEurope)

An ESF Research Networking Programme 12 pp. ESF, Strasbourg, France, November 2006



Social Variations in Health Expectancy in Europe Social Inequalities in Health Edited by J Siegrist and M

Marmot 258 pp. ISBN 0-19-856816-9. Published by Oxford University Press, United Kingdom, 2006



European Collaborative **Research Projects** An ESF EUROCORES Programme

8 pp. ESF, Strasbourg, France, December 2006

## **European Space Sciences Committee (ESSC)**



ESSC News 1 The newsletter of the ESF Expert Committee on Space Research N°1. 6 pp. ESF Strasbourg, France, February 2006

## **Committee on Radio Astronomy Frequencies** (CRAF)



**CRAF News 13** 

The newsletter of the ESF Expert Committee on Radio Astronomy Frequencies N°13. 4 pp. ESF Strasbourg, France, February 2006

## Marine Board - ESF





#### Navigating the Future – III

Position Paper 8 68 pp. ISBN 2-912049-59-8 ESF, Strasbourg, France, November 2006

	Americannol kaj 14 CRAF NEWS Danel Deretina in Rela Altorene Insjannan S7W)
Editorial	
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**CRAF News 14** The newsletter of the ESF Expert Committee on Radio Astronomy Frequencies Nº14. 6 pp. ESF Strasbourg, France, October 2006

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- Page 26 (EuroCLIMATE): Iceberg LancasterSound. Courtesy of H. Oerter
- Page 30 (EuroMinSci): Crossed-lamellar structure of aragonite in a gastropod shell (polarized light) - Field view: 50 μm. Courtesy of BioCalc (Jean-Pierre Cuif)
- Page 33 (SONS): STM image of BDG+ NTCDI assemblies on Au(344). Group of Prof. Jose Enrique Ortega, Universidad del País Vasco, Spain (SONS I -- MOL-VIC Project)
- Page 26 (ARCANE): Cuneiform tablet from Tell Beydar, Jezirah (c. 2415 BC)
- Page 26 (Magellan): Drilling barge GLAD 800. Courtesy of IODP
- Page 49 (PGPPE): Senior science teacher with teenage (13-18) students. © LWA/Getty Images



1 quai Lezay-Marnésia • BP 90015 67080 Strasbourg cedex • France Tel: +33 (0)3 88 76 71 00 • Fax: +33 (0)3 88 37 05 32 www.esf.org