

LESC NEWS

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

Editorial: Looking Back and Looking Forward

Five years after being initiated into LESG, initially as a Standing Committee member and, more recently, as a Core Group member, could be argued as an appropriate time to consider what has been achieved, what are the strengths and weaknesses of LESG (and ESF), and what the future holds! That is exactly what LESG members have been doing over the past 12 months. We have been debating not only LESG's *Science Position Paper*, but also carrying-out a *Self-Evaluation* on our activities. Both of these documents will, hopefully, provide a critical review for improvement, and guidance for future development.

Life, Earth and Environmental Sciences (LESC) acts as an umbrella for a plethora of research areas. It is hardly surprising, therefore, that at any one time subject biases appear in the way proposals are funded. The past years have, for example, seen a relatively smaller number of Earth Science proposals being received for consideration, and as a direct consequence, fewer being funded. Life Sciences, not surprisingly with the blossoming of new technologies and approaches, has seen a general increase in application number and success rate, across all ESF instruments. Along with identifying what are considered to be emerging areas in these three general fields, one of the areas highlighted in LESG's *Science Position Paper* is the need, not only to try to ensure an equal funding balance across the three disciplines, but also to encourage, catalyse and develop research programmes, from *Exploratory Workshops* to *Forward Looks*, that cross-link and integrate approaches.

All organizations and institutions require critical evaluations; LESG is no exception. For some time, many Member Organization (MO) Representatives, sitting on LESG have felt devoid of any major decision-making power and influence. The Core Group has, for understandable financial and logistical reasons, taken on responsibility for decision-making, possibly leaving the Standing Committee with a purely 'rubber-stamping' role. Under the Chairmanship of Reinhart Ceulemans, LESG has already started making major strides in ensuring that all Standing Committee Members

will, in future, play a far more direct and active role in both funding- and policy-decision activities. Another area of considerable concern for LESG is the variation that occurs in the level of involvement between MO and MO Representative. I have been exceptionally fortunate in that the MO I represent provides a very detailed briefing document prior to any LESG gathering; I am also expected to de-brief after the meeting. This has ensured a healthy and productive questioning and reporting interaction. It is not always the case with every MO! LESG needs to develop this relationship; including encouraging MO attendance at the annual Round Table Meeting.

Colleagues frequently ask me why I agreed to take on this extra, non-salaried, responsibility. LESG provides a unique opportunity to meet fellow European scientists, the majority of whom are genuinely interested in nurturing and developing the European Research Arena; enhances knowledge of European-funding possibilities; and, possibly most importantly, provides unequalled scope for scientific research and development discussion both within and without one's immediate field of scientific endeavour. I have no doubt that LESG's *Science Position Paper* and *Self-Evaluation Report* will contribute substantially to strengthening these deliverables.



Dr. Hefin Jones

UK representative on the LESG Standing Committee and member of the Core Group

LESC Standing Committee and Core Group meetings

The LESG Core Group (CG) has met twice so far this year. The meeting in Rome, Italy, on 5-6th February was kindly hosted by the Italian Member Organization (CNR). The main task for the CG was to plan the use of the strategic funds for 2009 and to discuss the LESG Science Position Paper and the LESG self-evaluation report. The CG decided to continue to support young scientists to attend relevant conferences (see examples on pages 3-4 of conferences from last year) and to fund strategic workshops which may lead to strategic activities such as Forward Looks and Science Policy Briefings or to EUROCORES theme proposals as well. The CG agreed on the next steps of the LESG Science Position Paper. In addition, as all ESF Standing Committees (SCs) will be reviewed by an international review panel during the second half of 2009, the SCs are expected to submit their contributions in a form of a self-evaluation report by the end of May. The CG finalized the questionnaire, the results from which will be used in the self-evaluation process which is the main part of the statutory review of LESG. The questionnaire included both individual member self-assessment and review at SC level, and was sent to all current and previous LESG Members.



Prof. Reinhart Ceulemans with Dr. Giuseppe Cavarretta (Consiglio Nazionale delle Ricerche)

The second CG meeting and the Standing Committee (SC) meeting took place in Piestany, Slovak Republic on 15-17th April. The meetings were kindly hosted by the Slovakian Member Organization (Slovenská Akadémia Vied). LESG tentatively approved the content of the LESG Position Paper, which will be finalized

by summer. During the meeting SC members worked also in subgroups to analyze the answers received in response to the self-evaluation questionnaire. Lively discussions took place concerning LESG's mission and vision, instruments and interactions with Member Organizations and other ESF and COST committees. In addition, some success stories from the list of completed activities were selected to be presented in the self-evaluation report.



Venue of the CG and SC meetings in April (insert: local LESG member Dr. Jan Kraic)

This year 40 Research Networking Programme (RNP) proposals out of 112 eligible proposals were in the LESG remit. Twelve proposals, covering a wide range of LESG fields, were considered to be excellent by the CG. After an intensive discussion, the LESG SC approved the ranking, and the top five will be submitted for funding to the ESF Member Organizations in the second half of June. The SC also recommended the release of the Science Policy Briefing on *Ocean Acidification*.

Policy Publications

ESF/COST Science Policy Briefing and the Final Report of the Forward Look on *European Food Systems in a Changing World* are now available

The rapidly-growing awareness of major global issues such as climate change and shifts in energy policy are raising fundamental concerns about Europe's food security in relation to other needs of society. This needs the urgent upgrading, renewal and strengthening both of the complementary parts of Europe's food systems, and of the system as a whole. The

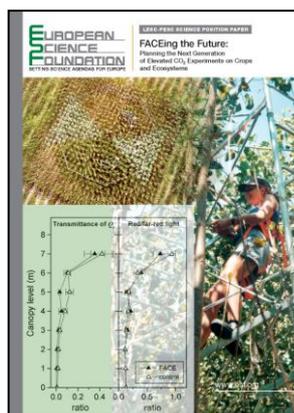
ESF/COST Science Policy Briefing and the Final Report of the Forward Look on **European Food Systems in a Changing World** identifies critical areas of research to address this. The ESF Science Policy Briefing presents the main recommendations of the Forward Look's Final Report, which describes a research agenda and actions to be taken in Europe for this highly timely and important topic. The action plan addresses the complex challenges ahead and aims to contribute to shaping European food policy.

The report was officially published in March 2009.

www.esf.org/food

LESC - PESC Science Position Paper on FACEing the Future - Planning the Next Generation of Elevated CO₂ Experiments on Crops and Ecosystems - is now available

One of the largest challenges facing mankind is to understand the causes and dynamics of global climate changes, to predict their extent and scope, and to develop strategies to limit their impact.



Climate change is driven mainly by anthropogenic release of greenhouse gases, of which the major one is carbon dioxide (CO₂). The response of plants to rising CO₂ plays a crucial role in determining how fast and how far atmospheric CO₂ levels will rise. The

response to CO₂ will interact with changes in the climate to determine how ecosystems and agricultural land-systems are affected.

The response of agricultural land systems and terrestrial ecosystems to future atmospheric CO₂ concentrations is studied in Free Air Carbon dioxide Enrichment (FACE) facilities. These are large open-air experiments, in which the atmospheric CO₂ concentration is locally elevated to the levels expected in the future.

Now is the time to redefine the scientific goals and organization of future FACE facilities. It is

important to close present gaps in understanding, define new questions and, more generally, to maximise the generation of knowledge. This will support and inform ecosystem and global modelling to obtain more reliable predictions of climate change, and allow us to develop strategies to mitigate some of the feared negative aspects of the future global climate.

www.esf.org/publications/position-papers

LESC Travel Grants

Understanding volcanoes

The International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) 2008 General Assembly was held in Reykjavik, Iceland, on 18-22 August 2008. The IAVCEI General Assembly is an international forum organized every four years during which volcanologists worldwide meet and discuss the latest evolution in terrestrial and extra terrestrial volcanological research. The main theme of this General Assembly was "Understanding Volcanoes" and the aim was to cover the most important aspects of volcanic processes in a broad sense as well as volcanic effects on society and the environment. The meeting was divided up into 4 symposia: from source to vent, volcanoes and eruptions, volcano - ice - water interaction, and volcano - environment - society. A total of 1238 communications were presented at the meeting, divided into 640 oral and 598 poster presentations. A total of 56 European students were supported by IAVCEI and LESG to attend the meeting.

The Planet in 2050

The International Geosphere-Biosphere Programme (IGBP), which leads a world-wide research effort on global environmental change, often invites world experts to discuss issues related to the fate of the planet. A workshop sponsored by LESG and PESC focusing on the evolution of the planet and its human inhabitants in the decades ahead was held in Lund, Sweden from 26-31 October 2008. The purpose of this workshop was to describe a number of desirable futures for Earth between the years 2030 and 2050; explore pathways to move from the present situation toward those futures; and identify more immediate constraints to, and opportunities for, moving

human environment systems onto the more desirable pathways. The format of the meeting was to discuss these issues from four different perspectives and to prepare written documents that will serve as a basis for the preparation of a book. Participants were distributed into four working groups covering the following topics: climate change, environment, air and water quality, health; land-use change, agriculture and urban development; energy and technology; and development, economy, culture.

EURECO –GFOE 2008

The EURECO-GFOE meeting, held in Leipzig, Germany, on 15-19 September 2008, was organized by the Helmholtz Centre for Environmental Research - UFZ and the universities of Halle and Leipzig. It was a joint meeting of the EEF-European Ecological Federation, the umbrella organization of the national ecological societies in Europe, and the GFOE-Ecological Society of Germany, Austria and Switzerland. The conference's general theme was "Biodiversity in an ecosystem context" as it considers species loss in relation to biogeochemical change.

Eutrophication is one of the greatest threats to European biodiversity and the session on this topic was of special interest. In 70% of countries in Europe, more than half of the terrestrial ecosystem areas are affected by eutrophication, a situation that is unlikely to improve significantly in the near future. On a global scale the problem is continuing to grow. Atmospheric nitrogen deposition, caused by N emissions from burning fossil fuels, fertilizer production and intensive agriculture, is an important source of both reduced and oxidized nitrogen in terrestrial ecosystems. The use of both organic and inorganic fertilizers also presents a significant threat to ecosystem function and there is a need for conservation policy to be informed by field-based research. In total, 450 oral and more than 200 poster presentations showed that there was a broad interest in the offered topics.

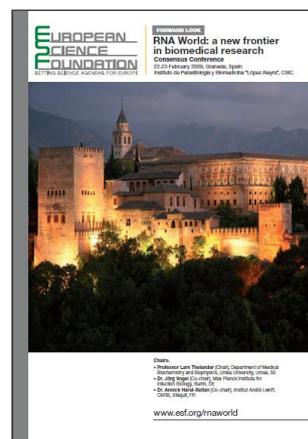
Forward Looks

RNA World

Forward Look – Consensus Conference
22-23 February, Granada, Spain

The conference, held in Granada, Spain, on 22-23 February 2009, was part of an ESF initiative to develop a coherent strategy for RNA research in Europe in recognition of the potential of RNA to result in new approaches to treating human diseases. Research into RNA, a molecule found in every cell of our bodies, could lead to remarkable advances in the treatment of diseases such as cancer and diabetes.

For many years it was believed that RNA's sole function in cells was to transmit genetic information from DNA during the manufacture of proteins – the cell's workhorse molecules. However, in recent years it has become clear that RNA has many more sophisticated functions and that there are more types of RNA than previously known.



"Research into RNA has great promise for both basic science and biotechnology and medicine," said the meeting's chair, Professor Lars Thelander of Umeå University in Sweden.

The Granada "Consensus Conference" was organized by ESF

as part of its Forward Look *RNA World: a new frontier in biomedical research* aimed at developing a strategy for research in RNA over the next ten years. Three earlier workshops had examined various aspects of RNA research to identify where gaps in our knowledge lie and what is required to plug these gaps and fulfill the promise that RNA holds.

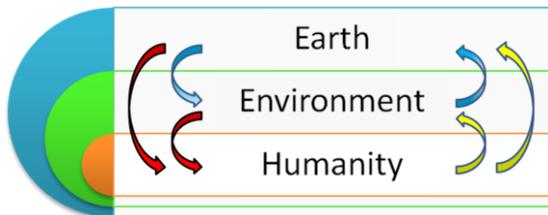
The Forward Look report on RNA research is due to be published later this year, detailing the scientific questions that need to be answered and giving politicians and policy makers the information they need when deciding where to direct research funding to ensure that Europe remains globally competitive in this key area of emerging science.

www.esf.org/maworld

RESCUE

Forward Look to provide “Responses to Environmental and Societal Challenges for our Unstable Earth”

Humankind is currently facing unprecedented changes in the Earth system. These changes have arisen at a rapidly growing pace because of human activities: among others, unsustainable exploitation and consumption of natural resources and accelerating perturbations of the environment. The systemic understanding of global environmental change has expanded markedly, but societal and policy-relevant drivers and consequences are still to be fully explored. In particular, the complex Earth system requires interdisciplinary studies at scales compatible to political and societal agendas, and some stronger common, integrated foundations between natural, social and human sciences to be established.



Relationships between Humanity, its Environment and the Earth, considered as parts of the Earth System. The blue and yellow arrows respectively represent well and partially studied relationships, while the red arrows stand for the effects of Global change on Humanity that are still to be investigated.

In its April 2009 meeting, the ESF Governing Council approved for launch the proposal for the new Forward Look RESCUE, which was presented by the Standing Committees for Life, Earth and Environmental Sciences (LESC) and for Social Sciences (SCSS), also with the support of the Standing Committee for Humanities (SCH). Other Standing Committees and several COST Domain Committees have also expressed their interest.

The Forward Look “RESCUE” will help to address the societal challenges related to global environmental change, including its human dimensions, and help to stimulate an integrated response from natural, social and human sciences. The proposed foresight study is especially organized around a series of topics:

- *new, emerging and neglected scientific questions in RESCUE remit;*
- *collaboration between the natural, social and human sciences in global change studies;*
- *requirements for research methodologies and data;*
- *towards a ‘revolution’ in education and capacity building;*
- *interface between science and policy, communication and outreach.*

Through its analyses and recommendations, “RESCUE” should enable the scientific community, together with other actors and key stakeholders, to develop medium to long-term strategies for future research activities and applications. It is expected that it will impact society by favouring common strategic understanding and coordination, and through transformative education delivery to ensure optimal impact and value.

www.esf.org/rescue

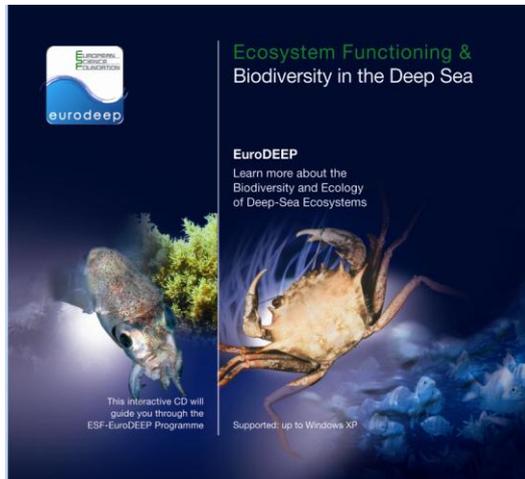
EUROCORES News

Out now! EuroDIVERSITY and EuroDEEP interactive DVDs



The Scientific Committees of the EuroDIVERSITY and EuroDEEP Programmes are pleased to announce the publication of a promo-DVD for each of the respective EUROCORES Programmes. The DVDs include an overview of the ongoing Collaborative Research Projects, an overview of all partners, the study sites and main scopes of each of the

individual projects. The DVDs can be used as promotion material of the projects for funding agencies, universities, and other interested scientific partners, as well as for outreach to the general public.



The DVDs can be ordered free of charge on request to eurodiversity@esf.org or eurodeep@esf.org.

New EUROCORES

Synthetic Biology; Engineering Complex Biological Systems (EuroSYNBIO)

Synthetic biology can be defined as the rational (re-)design of biological systems with useful properties. Though the field is still exploring its contours, the vision of synthetic biology is likely to have a tremendous scientific, technological and socio-economic impact. However, knowledge is highly scattered and despite the strong tradition of science in the various relevant areas in Europe, such as biotechnology, computational science and engineering, it lags behind the US.

The NEST-PATHFINDER Programme under the Sixth Framework Programme of the EC and resulting activities in the field of synthetic biology have helped to create a vigorous scientific community across Europe, with strong pillars of five to ten research groups in the UK, Switzerland, Germany, France and Spain. In other European countries, academic and industrial hotspots are emerging.

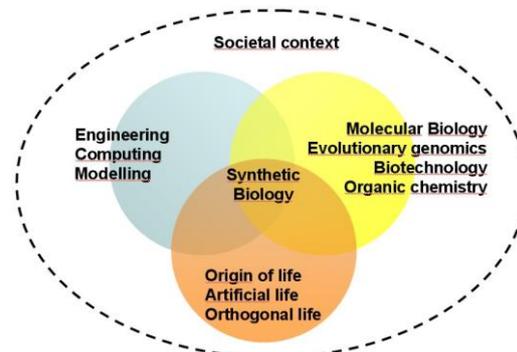
On 19 December 2008, ESF launched a new call for outline proposals under the

EUROCORES Programme EuroSYNBIO; Synthetic Biology: Engineering Complex Biological Systems. The EuroSYNBIO Programme is one of the first Programmes that will provide the lacking transnational funding scheme to facilitate further development in this field.

The Programme is supported by 19 national funding bodies from 15 European countries. The aim of the Programme is to address core strategic challenges of synthetic biology, thereby providing a solid scientific and technological basis for the development of this strongly transformative field.

At the deadline for submission, ESF received 24 outline proposals that involve 130 teams from contributing countries plus 12 associated partners who will bring their own funds into the Programme. Among the latter are teams from non-participating countries like the United States, Portugal, Spain and South Africa.

The Review Panel selected 16 proposals to be invited for full proposal by 16 June 2009.



www.esf.org/eurosynbio

Ecological and Evolutionary Functional Genomics (EuroEEFG)

Following agreement of 18 funding agencies from 17 countries, the Call for outline proposals for Collaborative Research Projects to be carried out under the EUROCORES Programme "Ecological and Evolutionary Functional Genomics" (EuroEEFG) was launched on 18 December 2008. The EuroEEFG Programme is expected to run for three to four years.

The aim of this EuroEEFG Programme is to bring together European laboratories that are inspired by the same fundamental question: how is evolutionary change brought about at

the level of genome structure and function? It is expected that by joining forces in technological issues and by focusing on a limited number of model systems, a significant advance can be made in the mechanistic understanding of how organisms respond, adapt and function with respect to the environment. The Programme will employ high-throughput tools for analysing gene expression, gene detection and gene function as related to function and performance of organisms under natural conditions. There will be special attention for polymorphisms in functionally important genes and analyses of the differential fitness of such genetic variants. The Programme will be aimed at resolving variation in a genome-wide sense, using modern molecular biology techniques.

The first Review Panel meeting was held in March in Strasbourg. Twenty-seven out of the 59 received outline proposals were recommended for submission of a full proposal. The deadline for submission of full proposals is 16 June 2009.

www.esf.org/euroeefg

Completed EUROCORES

EuroDYNA's legacy points way forward

EuroDYNA¹, the EUROCORES Programme that aimed to shed light onto the functioning of the nucleus, the control center of a cell, brought together 40 research groups from 9 European countries. During its three-year lifetime, the Programme offered its members a diverse array of networking opportunities, of which the annual conferences were particularly successful. This is illustrated by the fact that so far 15 new collaborations have been formed between scientists across several thematic Collaborative Research Projects (CRPs), a development that otherwise would not have happened. EuroDYNA was active beyond its boundaries, forging links with EU-networks and other EUROCORES Programmes within the same discipline and across scientific disciplines. For instance, in 2006 and 2007, two roundtable meetings took place involving members of EuroDYNA and SONS² (a EUROCORES Programme in the Physical Sciences) to facilitate cross-disciplinary exchange at the interface of molecular biology and material science/nanoscience. Within the Life Sciences, EuroDYNA members

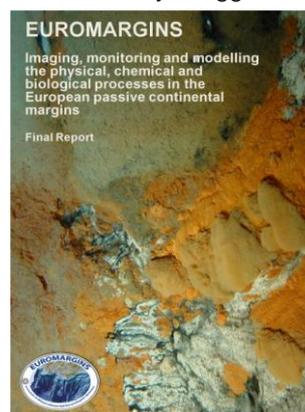
participated in a Mini-Symposium held by the EUROCORES RNAQuality in 2007 and the RNAQuality Advanced Workshop, in 2008. Overall, EuroDYNA produced numerous high-level publications, including articles in *Nature* and *Cell*, and the cross-CRP and cross-EUROCORES interactions have already laid successfully the foundation for joint publications and grant submissions. Building on these achievements, the EuroDYNA Review Panel and investigators made recommendations as to the exploration of important future research topics in the field. The report and specific highlights are available at www.esf.org/eurodyna.

¹ Dynamic Nuclear Architecture and Chromatin Function

² Self-Organised Nanostructures

Happy ending for EUROMARGINS, the first EUROCORES on geosciences

The EUROMARGINS Programme launched by the European Science Foundation (ESF) in the early 2000s focused on studying the eastern and western Mediterranean and the North-East-Atlantic sedimentary systems and deep-seated structures. Margins are sites of some of the world's largest sediment accumulation centres and are among the best indicators for past changes in sea-level, climate, sediment transport and fluxes. The margins around Europe are prone to major natural geohazards where seismic activity and submarine slope failures may trigger tsunamis. Since the



majority of the population lives within a short distance to the coastal zone, our understanding of geohazards and their development is of societal relevance. Our comprehension of how the margins around Europe have changed and are changing draw

on only a small number of variables that have been geophysically imaged and modelled very carefully with emphasis on the Norwegian and Greenland rifted continental margins, the margins surrounding the Iberian Peninsula, and the Mediterranean margins. There are many new discoveries related to fluids that are emitted to the ocean via the seafloor. Fluid seeps are highly variable and dynamic

biological hotspot locations. Presently, the global inventory of fluid storage systems, such as gas hydrate in continental margins, attracts much attention regarding future energy resources, climate threat and geohazards. This is one of the instances where EUROMARGINS research has contributed significantly. Geohazard studies along the European margins provided new insights into the role fluid flow may play as a trigger for submarine slope failures. Many publications resulted from the EUROMARGINS Programme. In particular, a special issue in the *Marine Geology* journal provides one of several excellent examples of the integrated research of the Programme. The eleven papers of the special volume released in May 2009 focus on the Norwegian-Greenland, the Algerian, the Iberian and the eastern Mediterranean margins including the Nile deep-sea fan. The EUROMARGINS final report is also available on the ESF website:

www.esf.org/euromargins

Professor Juergen Mienert
Chair of EUROMARGINS Scientific Committee

exchange knowledge on the current threat to biodiversity from atmospheric nitrogen deposition. The key topics for discussion will include identifying the drivers of change in habitats, using species as indicators, options for mitigating impacts and implications for restoration schemes.



EUROCORES-RNP synergy

Atmospheric nitrogen deposition is already causing significant species loss from natural habitats. The results to date of the ESF Collaborative Research Project BEGIN have confirmed these results and indicated that the effects are widespread across Europe. The project has gone further to demonstrate the importance of cumulative load when the focus had previously been on annual critical loads.

This new thinking has major implications for the vulnerability and management of nature conservation sites. Improved modelling of present and past deposition rates is now available; in part due to the work of the ESF RNP NinE. These two ESF-sponsored projects will come together to share their knowledge, disseminate it to an important user community and engender discussion around practical application of the new knowledge in order to promote enhanced conservation of biodiversity across Europe.

A workshop will be held in Bordeaux, France, from 27-29 October 2009, to bring together ecologists from the BEGIN consortium with physical modellers from the NinE network and a range of stakeholders from across Europe to

New LESC Research Networking Programmes

The overall aim of Research Networking Programmes (RNPs) is to provide an umbrella for coordinated activities to bring together researchers, data and knowledge from past and ongoing European research projects in order to synthesise knowledge and improve collaboration. RNPs are funded *à la carte* by ESF Member Organizations interested in supporting those activities according to their strategic priorities and interests.

The following three new LESC-related RNPs have recently been launched:

- EuroGlycoScience Forum;
- The Functionality of Iron Minerals in Environmental Processes (FIMIN);
- Tall Tower and Surface Research Network for Verification of Climate Relevant Emissions of Human origin in Europe (TTORCH)

www.esf.org/programmes

Towards a European Strategy for Synthetic Biology

The LESC Unit was a partner in the EC Specific Support Action (SSA) *Towards a European Strategy for Synthetic Biology (TESSY)*, which ended in December 2008. Being an emerging area at the cross-roads between molecular biology and engineering, Synthetic Biology has a high potential for research and development, and future applications will be beneficial for economy and society. To this end, TESSY in collaboration with the scientific community developed a roadmap for Synthetic Biology in Europe, which was presented to different stakeholder groups, notably ESF Member Organizations, at the TESSY stakeholder meeting in Brussels in June 2008. This was followed by a workshop organized for funders in November 2008, to discuss if and how they can contribute to the development of the field. Specifically, TESSY presented a self-assessment tool with the aim to support funders and institutions to assess their current situation and develop a targeted strategy with respect to Synthetic Biology.

TESSY's main contributions are:

- development of a common understanding of Synthetic Biology;
- raising awareness for Synthetic Biology among funders and practical support agencies;
- development of a roadmap which proposes a common way forward with respect to European Synthetic Biology;
- enhancement of European visibility in the field through an intensive dialogue with the Synthetic Biology community in the US;
- strengthening of the European position on an international level through active participation in ongoing OECD activities.

The detailed roadmap and further info is available at www.tessy-europe.eu/.



European Cooperation in Geosciences and Environmental Sciences: ESF & COST achievements and opportunities

As in previous European Geophysical Union (EGU) General Assemblies, the purpose of this year's EGU ESF-COST session in Vienna (20-24 April) was to highlight the importance of international, interdisciplinary cooperation in the European framework of research in the relevant areas in Geosciences and Environmental Sciences. A series of keynote talks were given as examples of activities recently developed within the framework of the European Science Foundation and of the intergovernmental framework for European Co-operation in the field of Scientific and Technical Research (COST). The MOLTER RNP and BURNOUT Action were presented as an example of ESF-COST synergy activity, the TOPO-EUROPE EUROCORES Programme was described and the new Forward Look RESCUE introduced. Short presentations of the opportunities available for the European scientific community in the fields of Geosciences and Environmental Sciences within ESF and COST were also given before the floor was open for discussion and questions.

LESC Standing Committee members

Reinhart Ceulemans (Chair)

Department of Biology, University of Antwerpen,
Belgium

Isabel Ambar

Instituto de Oceanografia, Universidade de
Lisboa, Portugal

Hans Brix

Department of Biological Sciences, University of
Aarhus, Denmark

Constantinos Doukas

Department of Historical Geology and
Palaeontology, University of Athens, Greece

Arnold Driessen

Department of Microbiology, University of
Groningen, Netherlands

Angelos Efstathiou

Department of Chemistry, University of Cyprus,
Cyprus

Olivier Francis (Core Group)

Department of Physics, University of Luxembourg,
Luxembourg

Mike Gale

John Innes Centre, Norwich, United Kingdom

Josef Glössl (Core Group)

Institute of Applied Genetics and Cell Biology,
University of Natural Resources and Applied Life
Sciences, Vienna, Austria

Jean-Henry Hecq

Département des Sciences et Gestion de
l'Environnement, Université de Liège, Belgium

Philippe Jean-Baptiste

Laboratoire des Sciences du Climat et de
l'Environnement, CEA Saclay, Gif-sur-Yvette,
France

Kerstin Johannesson

Tjärnö Marine Biological Laboratory, Department
of Marine Ecology, Göteborg University, Sweden

Alan G. Jones

Dublin Institute for Advanced Studies, School of
Cosmic Physics, Dublin, Ireland

Hefin Jones (Core Group)

Cardiff School of Biosciences, University of
Cardiff, United Kingdom

Aslihan Kerç

Faculty of Engineering, Marmara University,
Turkey

Ján Kraic

Research Institute of Plant Production, Piešťany,
Slovak Republic

Juozas Kulys

Institute of Chemistry and Bioengineering, Vilnius
Gediminas Technical University, Lithuania

Sonja Lojen (Core Group)

Department of Environmental Sciences, J. Stefan
Institute, Slovenia

Georgi Markov

Institute of Zoology, Bulgarian Academy of
Sciences (BAS), Sofia, Bulgaria

Volker Mosbrugger

Senckenberg Natural History Museum and
Research Institute, Frankfurt, Germany

Jan Motlik

Institute of Animal Physiology and Genetics,
Academy of Sciences of the Czech Republic,
Libechov, Czech Republic

Tiina Nöges

Institute of Environmental and Agricultural
Sciences, Estonian University of Life Sciences,
Tartumaa, Estonia

Paavo Pelkonen

Faculty of Forest Sciences, University of Joensuu,
Finland

Maria Pilar Perez (Core Group)

Instituto de Microbiología Bioquímica, Universidad
de Salamanca, Spain

Mihai Popa

Faculty of Geology and Geophysics, University of
Bucharest, Romania

Czelawa Rosik-Dulewska

Institute of Environmental Engineering, Polish
Academy of Sciences, Zabrze, Poland

Michel Salzet (Core Group)

Université des Sciences et Technologies de Lille
Villeneuve d'Ascq, France

Giuseppe Scarascia-Mugnozza (Core Group)

Department of Agronomy, Forestry and Land Use,
Agricultural Research Council of Italy, Roma, Italy

Olgeir Sigmarsson (Core Group)

University of Iceland & Laboratoire Magmas et
Volcans, CNRS, Clermont-Ferrand, France

Mark Stitt (Core Group)

Max Planck Institut for Molecular Plant Physiology,
Golm, Germany

Andreas Strasser

Department of Geosciences, University of
Fribourg, Switzerland

Mette Svenning

Department of Biology, University of Tromsø,
Norway

Jan Tavernier

Flanders Institute for Biotechnology, Ghent
University, Belgium

Đurđica Ugarković

Department of Molecular Biology, Ruđer Bošković
Institute, Zagreb, Croatia

Zoltán Varga

Department of Zoology and Evolution, Debrecen
University, Hungary

Forthcoming meetings

June-September 2009

- **MOLTER** Conference: **ISOCOMPOUND 2009**
1-5 June - Potsdam (DE)
- **SIZEMIC** Workshop: **Body size and ecosystem dynamics: Implications for conservation and management of natural resources**
1-6 June - Strömstad (SE)
- **MedCLIVAR** Workshop: **HYdrological cycle in the Mediterranean Experiment (HyMeX)**
1-5 June - Heraklion, Crete (GR)
- **Defining The Lithosphere-Asthenosphere Boundary Beneath Continents**
Exploratory Workshop
2-6 June - Dublin (IE)
- **Mechanisms of Quaternary Climate Change**
ESF Research Conference
6-11 June - Obergurgl (AT)
- **ThermAdapt** Workshop: **Thermal Adaptation in aquatic ectotherms**
15-19 June - Aarhus (DK)
- **MedCLIVAR** Workshop: **Climate Impact Models for the Mediterranean Region - Focus session within the COSMOS (Community earth System MOdelS) 2009 General Assembly**
15-17 June - Berlin (DE)
- **EuroMEMBRANE** Science Committee Meeting
16 June - Strasbourg (FR)
- **Mapping Interfaces: the Future of Knowledge**
INIF Workshop
16-17 June - Reykjavik (IS)
- **INTROP** Conference: **Global Aerosol Source and Sink Processes**
21-26 June Davos (CH)
- **Biosignatures On Exoplanets: The Identity Of Life**
Exploratory Workshop
22-26 June - Mulhouse (FR)
- **Ways To Reduce Carbon Foot Print Of Portland Cement Production And Cementitious Products**
Exploratory Workshop
22-23 June - Coventry (UK)
- **Exploring The Interactions Between Carbon And Organic Chemical Cycling In Terrestrial Ecosystems**
Exploratory Workshop
24-26 June - Lancaster (UK)
- **Biological Surfaces And Interfaces**
ESF Research Conference
27 June – 2 July: Sant Feliu de Guixols (ES)
- **ThermAdapt** Workshop: **Evolutionary and physiological adaptation to climate induced environmental changes**
28 June – 2 July - Bialowieza (PL)
- **CONGEN** Workshop: **Evolutionary and physiological adaptation to climate induced environmental changes**
28 June – 2 July - Bialowieza (PL)
- **Roadmapping Science in Society** meeting
30 June – 1 July - Paris (FR)
- **Magellan** School: **ESF - Magellan Introductory Course in Ocean Drilling Sciences (MICOD)**
15-21 July - Urbino (IT)
- **FFG** Workshop: **Computational Methods for RNA Analysis**
26 July – 8 August - Benasque (ES)
- **ArchEnviron** Workshop: **Peering into the Cradle of Life**
23-30 August - Ilomantsi (FI)
- **Bionanotechnology: Development And Application Of Principles Of Nano- and Bio-Sciences To Sensing, Diagnostics & Therapy**
Exploratory Workshop
31 August – 2 September - Sintra (PT)
- **MedCLIVAR** Conference: **11th Plinius Conference on Mediterranean Storms**
7-11 September - Barcelona (ES)
- **Nanocarbons**
ESF Research Conference
8-13 September - Acquafredda di Maratea (IT)
- **Interdisciplinary Water Management In European Agricultural Landscapes**
Exploratory Workshop
8-10 September - Birmingham (UK)

- **NinE ENA5 Workshop**
9-11 September - Brussels (BE)
- **RESCUE** Forward Look Scientific Organising Committee meeting and kick-off event
9-11 September – Paris & Rueil-Malmaison (FR)
- **EuroMARC: 2nd EuroMARC Annual Conference**
13-17 September - Presqu'île de Giens (FR)
- **Improved Quantitative Fire Description With Multi-Species Inversions Of Observed Plumes**
Exploratory Workshop
14-16 September - Farnham (UK)
- **Complex Systems and Changes**
ESF Research Conference
15-20 September - Sant Feliu de Guixols (ES)
- **TOPO-EUROPE** Summer School on modelling thermochronology
20-23 September - Aussois (FR)
- **Gene Expression to Neurobiology and Behaviour**
ESF Research Conference
20-25 September - Sant Feliu de Guixols (ES)
- **Diurnal- to Century-Scale Controls On Soil Respiratory Fluxes. Towards A New Generation Of Integrated Experimental And Modelling Approaches**
Exploratory Workshop
20-23 September - Innsbruck (AT)
- **TOPO-EUROPE** Summer School on Carpathian-Danube Delta-Black Sea sedimentary system
25 September – 1 October - Murighiol (RO)

- **LESC Core Group and Round Table meetings**
3-5 June - Ljubljana (SI)
- **LESC/COST Synergy meeting**
15 June - Brussels (BE)
- **LESC Core Group meeting**
3-4 September - Madrid (ES)

LESC Unit
1, quai Lezay-Marnesia
BP 90015
67080 Strasbourg Cedex
France
Tel. +33 3 88 76 71 29
Fax: +33 3 88 37 05 32
Email: lesc@esf.org
www.esf.org/lesc

The European Science Foundation (ESF) provides a platform for its Member Organizations to advance European research and explore new directions for research at the European level.

Established in 1974 as an independent non-governmental organization, the ESF currently serves 80 Member Organizations across 30 countries.