

European Collaborative Research Programme (EUROCORES)

Smart Structural Systems Technologies (S3T)

1st Scientific Committee Meeting,
Strasbourg, 7 and 8 September 2006

Adoption of the Agenda:

Today

1. Welcome, Introduction, and adoption of the agenda
2. Mandate of the Scientific Committee (SC) and SC Chair
3. About ESF, Structure & Objectives of EUROCORES & S3T
4. Overview of the S3T Collaborative Research Projects (CRP)
5. Presentation of US representatives and discussions

Dinner @ 20:30: (at the restaurant Le Panier du Marché)

Tomorrow

6. Discussion and Planning of the Networking activities
7. Dissemination & Communications
8. Reporting Procedures
9. Other Programmes / Initiatives related to S3T
10. Action List, Way ahead and Approval
11. Next Meeting

EUROCORES Scientific Committee

Membership:

- Project Leaders (or another representative from each CRP)
- ESF: EUROCORES Programme Coordinator (EPC)
- Relevant Head of Unit may participate

Mandate:

SC normally meets once or twice a year and is responsible for:

- Planning and execution of the networking activities of the programme on behalf of all PIs and APs.
- Provision of scientific guidance, coordination support, and communication to the PIs and APs
- Reporting to the Management Committee through the EPC
- The EPC provides the secretariat to the SC

SC Chair: The Chair of the SC is normally appointed by ESF

About ESF:

ESF provides a common platform for our Member Organisations (MOs) in order to:

- **Advance European research**
- **Explore new directions for research at the European level**

Through our activities, we serve the needs of the European research community in a global context.

About ESF:

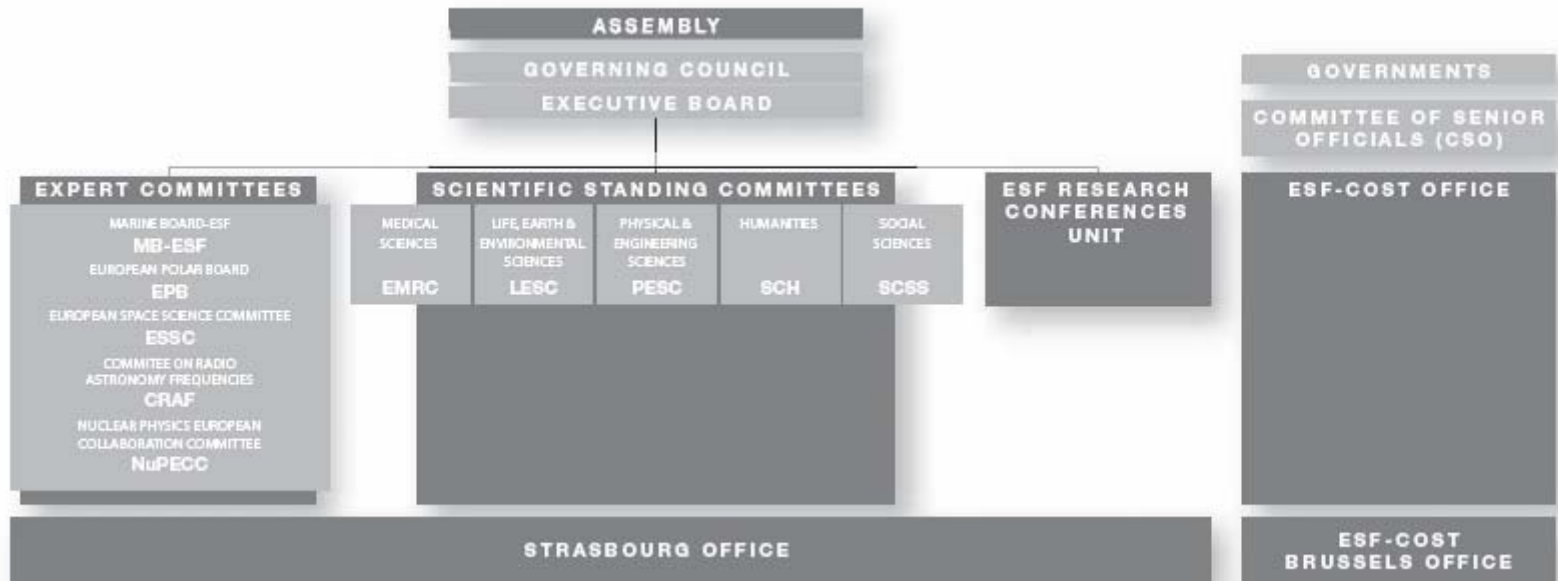


- 78 Member Organisations in 30 countries, beyond the European Union.
- Research funding organisations
- Research performing organisations
- Academies

Three decades of science

- Established 1974
- Independent, non-governmental
- Offices in Strasbourg and Brussels
- Budget: 41M€
- Networking Budget: 3B€

Organisation



New Strategic Plan



Our pillars

- Science Strategy
- Science Synergy
- Science Management

Science Strategy

Foresight and Advice

- Forward Looks
- Member Organisations Fora
- Exploratory Workshops
- Policy Briefings

Science Synergy

Cooperation with MOs

- ESF Research Networking Programmes (e.g., CONVIB)
- ESF Research Conferences
- **EUROCORES - European Collaborative Research**

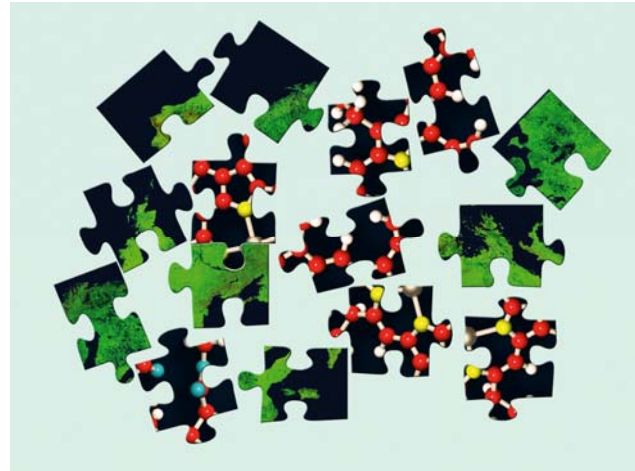
Science Management

Implementation of Activities

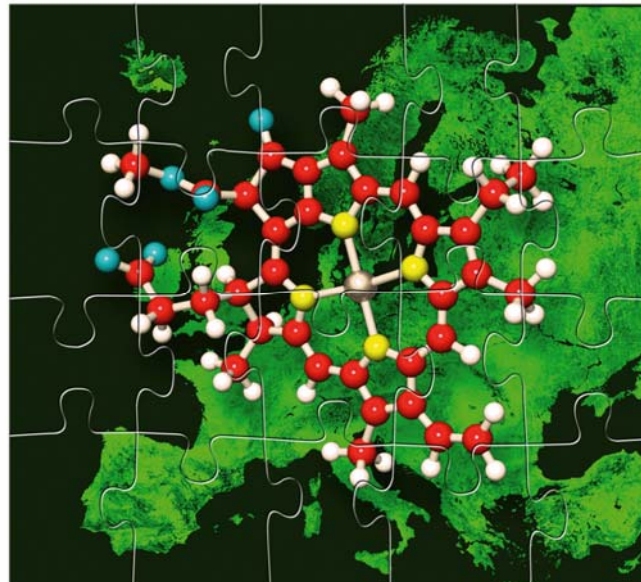
- EURYI - European Young Investigator Awards
- European CO-operation in the Field of Scientific and Technical Research (COST)
- EuroBioFund

About EUROCORES

fragmented
research strengths



new, integrated
knowledge



framework for national
funding agencies to join
forces to support cutting
edge research

Create critical mass of
scientific competences and
resources to solve complex
and broad research
questions

Bottom-up approach

About EUROCORES

Main Objectives:

- To provide European critical mass in specific topics
- To develop multilateral funding collaborations

Features:

- Investigator driven, all areas of science
- Provides a framework for collaboration of national funding agencies on basic research
- Open and transparent process
- European competition with international Peer Review
- Project funding is national but programme coordination and networking is through ESF

4 Main Stages (new scheme)

Step 1 Theme Selection

- Annual call for Theme proposals (March to end June)
- Ranking of Theme Proposals (July to Sept)
 - Standing Committees ranking based on Peer Review
- EUROCORES Committee selection – (Sept)
- Preparation of Call for Outline Proposals (Nov-Dec)
- MO EoI (by end February)

**Selected Themes
(11-12 months)**



**New EUROCORES
Programmes**

Step 2 Selection of Outline Proposals

**Selected Outl. Proposals
(3-4 months)**

Step 3 Selection of Full Proposals

- Launch of Call for Outline Proposals (March-end May)
- Sifting meeting (June)

4 Main Stages (continued)

Step 3 Selection of Full Proposals

- Call for Full Proposals (June to Sep)
- International Peer Review (Sep to Dec)
- Ranking of Full Proposals (Dec)

**Selected FP
Ranking List**

Step 4 Funding Decisions

- Management Committee Meeting (Dec-Jan)
- Funding negotiations (Jan-April)
- Re-assessments (if needed)

**Funded
CRPs**

- Start of the Networking Phase (May-June)
- Scientific Committee Meeting
- Research and Networking

EUROCORES Procedure

Criteria for Theme selection

- ✓ Scientific quality, novelty and feasibility
- ✓ Requirement of European cooperation and critical mass
- ✓ Relation to ongoing or planned research initiatives in same or related field
- ✓ Qualification of the applicants
- ✓ Funding requirements
- ✓ Ethical and legal issues

EUROCORES Procedures Phase 2 - Stage 1 - Sifting criteria

- ✓ Eligibility?
- ✓ Relevance to the Call
- ✓ Novelty & Originality (including Scientific Quality)
- ✓ Level of international and multidisciplinary integration (*European scientific added value*)
- ✓ Qualification of the applicants in the field

EUROCORES Procedures

Phase 2 - Stage 2 - Ranking criteria

- ✓ Scientific quality of the CRP and IPs
- ✓ Originality / Novelty
- ✓ Feasibility (incl. suitability of methodology)
- ✓ Level of trans-national collaboration
- ✓ Multi-disciplinary added value
- ✓ Qualification of the applicants
- ✓ *Overlap with ongoing projects*
- ✓ *Suitability of budget items (value for money)*

EUROCORES funding



Networking & Dissemination funding



**Collaborative Research Project
CRP 1**

**Collaborative Research Project
CRP 2**

...
...

**Individual Project
IP-1**

**Individual Project
IP-2**

**Individual Project
IP-3**

More IPs

Research & inter-CRP funding

**Associate Partner
AP-1**

More APs

Funding Agency A

Funding Agency B

Funding Agency C

Self funded

Current Programmes

- Currently 20 EUROCORES Programmes and Programme proposals
- 16 Programmes are fully running (Call for proposals published)
- 6 Programmes started funding (~45 M€ for 3-4 years)
- 8 Programmes have finished the Review process
 - 6 fully operational
 - 2 awaiting funding decisions
- 4 Programmes will publish their Call for proposals this year
- New programmes through open Call for EUROCORES themes – received 52 proposals for 2005 and 47 for 2006

Main governing bodies

Management Committee

- One representative (science administrator/manager) from each EUROCORES Funding Agency (EFA) plus ESF Programme Coordinator
- Overall direction of a EUROCORES programme

Review Panel

- Independent experts
- Key role in the Review Process

Scientific Committee

- Representatives of the funded Collaborative Research Projects (CRPs)
- Take decisions on networking activities of the EUROCORES programme

S3T — Overview

Aim:

To further the State-of-the-art on theory and experiments for the integration of sensor and system developments into mechanical, civil and other structural engineering systems in order to facilitate extensive monitoring and structural management

Focus:

1. Modelling of structures and machines
2. Sensors and Actuators
3. Systems
4. Analysis & Decision-Making

S3T — Programme

- Call published in end Summer 2004
- 2 November 2004 – Deadline for OP - 55 Received
- 6 January 2005 – Sifting – 23 invited for FP
- 14 March 2005 – Deadline for FP - 21 Received
- Up to 15 June 2005 External assessments received
- About 190 Referees contacted
- 161 Referees Requested
- 90 Assessments received – 3 not sent to applicants
 - Ratio 1.8
- 4.286 referees per proposal

S3T - 20 EFA in 15 Participating Countries

Austria

Fonds zur Förderung der Wissenschaftlichen
Forschung (FWF);
Österreichische Akademie der Wissenschaften

Belgium

Fonds voor Wetenschappelijk Onderzoek (FWO)
Fonds National de la Recherche Scientifique
(FNRS);

Czech Republic

Grantová agentura České republiky (GACR)
Akademie ved Ceske republiky

Finland

Academy of Finland

France

Centre National de la Recherche Scientifique
(CNRS)

Hungary

Hungarian Scientific Research Fund (OTKA)

Ireland

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

Italy

Consiglio Nazionale delle Ricerche (CNR)

The Netherlands

Nederlandse Organisatie voor Wetenschappelijk Onderzoek
(NWO)

Poland

Ministry of Scientific Research and Information Technology -
Institute of Biocybernetics & Biomedical Engineering

Portugal

Fundacao para a Ciencia e Tecnologia (FCT)

Slovak Republic

Slovak Academy of Sciences, Institute of Informatics

Spain

Ministerio de Educación y Ciencia, Council for Scientific
Research (CSIC) & Oficina de Ciencia y Tecnologia (OCYT)

Turkey

Scientific and Technical Research Council of Turkey
(TUBITAK)-Marmara Research Center

United Kingdom:

Engineering and Physical Sciences Research Council
(EPSRC)

S3T — Funded CRPs

- **FP001-MAFESMA:** Material algorithms, Finite Element methods, Experiments
 - PL: Jan Van Humbeeck, (BE), Catholic University of Leuven
 - 8 PI: BE, FR, FI, CZ,
 - 2 AP: FR, CZ
- **FP010-S3HM:** Smart sensing for Structural Health Monitoring
 - PL: André Preumont, (BE), Université Libre de Bruxelles
 - 6 PI: BE, FI, PL, FI, UK
 - 2 AP: BE, US
- **FP012-Smorph:** Smart Aircraft Morphing Technologies
 - PL: Jonathan Cooper, (UK), University of Manchester
 - 2 PI: UK, PT
 - 1 AP: IT
- **FP014-SMARTeR:** Shape Memory Alloys to Regulate Transient Responses in civil engineering
 - PL: Michel Frémond, (FR), Laboratoire Central des Ponts et Chaussées
 - 4 PI: FR, IT, SP
 - 3 AP: IT
- **FP021-UndergroundM3:** Micro-Measurement and Monitoring System for Ageing Underground Infrastructures
 - PL: Kenichi Soga, (UK), University of Cambridge
 - 5 PI: UK, BE, IT, SP, CZ
 - 5 AP: CZ, UK, SP,
- **FP054-COVICOCEPAD:** Comparison of vibration control in civil engineering using passive and active dampers
 - PL: Rui Barros, (PT), University of Porto
 - 4 PI: PT, IT
 - 1 AP: IT

S3T — Budget

Research Budget: **3.2 to 4.0 M€**

Networking and Dissemination Budget in (k €)

| | Year 1 Oct 06–Sept 07 | Year 2 Oct 07–Sept 08 | Year 3 Oct 08–Sept 09 | Year 4 Oct 09–Sept 10 |
|--------------------|-----------------------------|--------------------------------|--------------------------|--------------------------|
| Network budget | 60 | 100 | 60 | 50 |
| Network activities | 2 workshops One with NSF | One conference One workshop | Series of workshops | One final conference |
| Diss. | 6 | 6 | 6 | 6 |

