

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

## **Briefing to SSB**

**Washington, DC, 23 April 2015**

# ESF Member Organisations

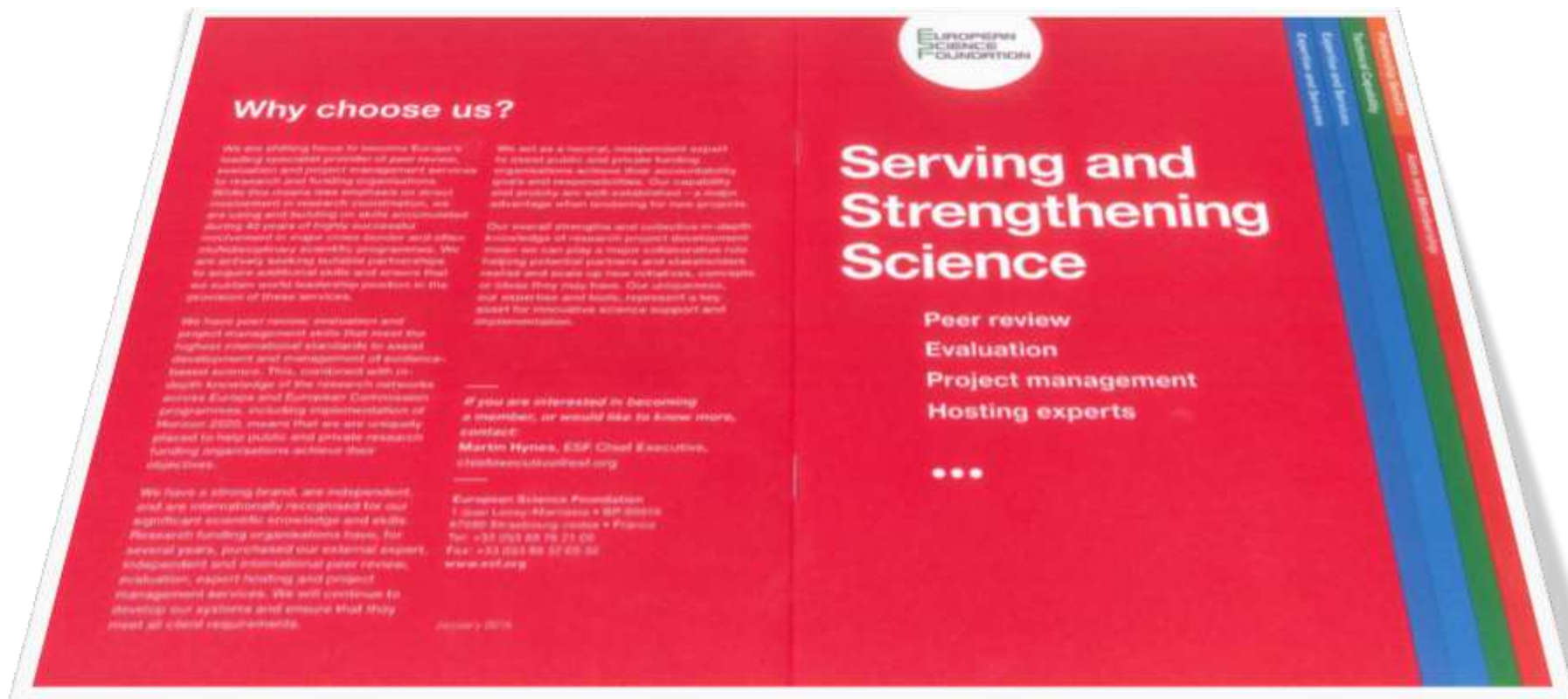


ESF is an independent association of 66 Member Organisations

- research funding organisations
- research performing organisations
- academies and learned societies

in 29 countries

- **ESF will stop its science networking activities at the end of 2015**
- The consulting company carrying out the **viability check** of the ESF successor and associated business plan has just delivered its report on Monday. **The outcome is positive.**
- Provided this report is approved by governance in May-June 2015, **ESF will be evolving into a science services based organisation as of 2016** (peer-review, evaluation, joint programming support, coordination support to the community, etc.)
- The final go-ahead would then be ratified at the 2015 ESF Annual Assembly
- **ESF was given the mandate by its governance** to continue to host Expert Boards (CRAF, EMB, **ESSC**, MatSEEC, NuPECC) and provide it with adequate support (accounting, legal, communications/media) until 2015
- **The ESF successor** would become the hosting platform for these five Expert Boards and Committees



**Why choose us?**

We are striving hard to become Europe's leading specialist provider of peer review, evaluation and project management services to research and funding organisations. While this change has been inevitable, we are using and building on skills accumulated during 42 years of highly successful involvement in major science bodies and often multi-disciplinary scientific programmes. We are actively seeking external partnerships to acquire additional skills and ensure that we sustain world leadership position in the provision of these services.

We have peer review, evaluation and project management skills that meet the highest international standards for award development and management of government-funded activities. This, combined with in-depth knowledge of the research networks across Europe and European Commission programmes, including implementation of Horizon 2020, means that we are uniquely placed to help public and private research funding organisations achieve their objectives.

We have a strong brand, are independent, and are internationally recognised for our significant scientific knowledge and skills. Research funding organisations have, for several years, purchased our external expert, independent and international peer review, evaluation, expert funding and project management services. We will continue to develop our systems and ensure that they meet all client requirements.

We act as a neutral, independent expert to assist public and private funding organisations achieve their accountability goals and responsibilities. Our impartiality and probity are well established – a major advantage when tendering for new projects.

Our several strengths and collective in-depth knowledge of research project development mean we can play a major collaborative role helping potential partners and stakeholders realise and bring up new initiatives, concepts or ideas they may have. Our judgement, our expertise and tools, represent a key asset for innovative science support and implementation.

**Serving and Strengthening Science**

Peer review  
Evaluation  
Project management  
Hosting experts

... ..

**If you are interested in becoming a member, or would like to know more, contact:**  
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# Expert Boards and Committees Voices for European science

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Committee on Radio Astronomy Frequencies



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European Marine Board



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European Space Sciences Committee



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Materials Science and Engineering Expert Committee



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Nuclear Physics European Collaboration Committee





# ESSC

## Voice for European space science



Committee on Radio Astronomy Frequencies



European Marine Board



European Space Sciences Committee



Materials Science and Engineering Expert Committee



Nuclear Physics European Collaboration Committee

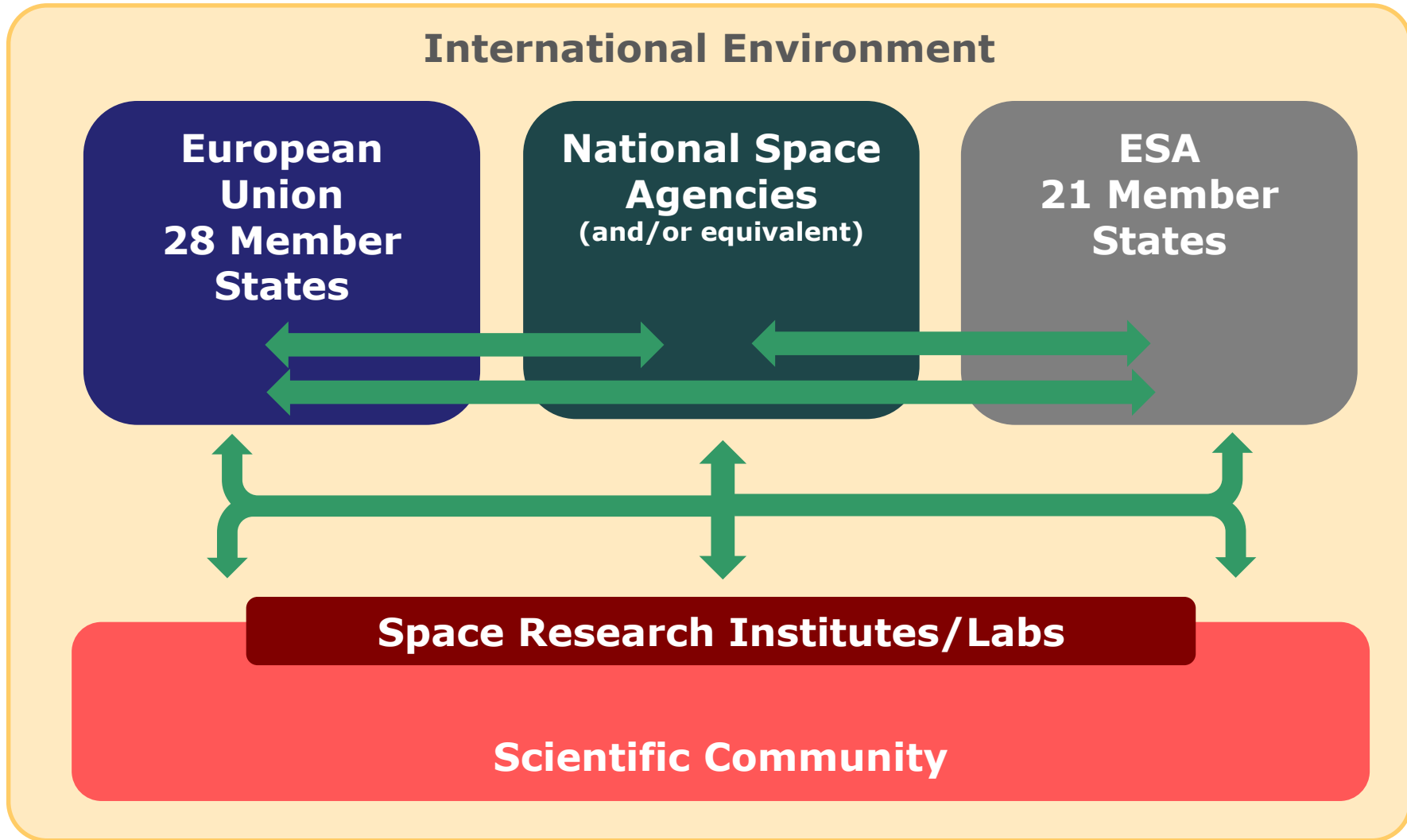




## ESSC Mission Statement

*“ The mission of the ESSC is to provide an **independent** European voice on European space research and policy. It is the ESF’s expert body on space research ”*

# European Space Sciences Context





- **ESSC is funded by 18 organisations (space agencies, research councils) from 14 European Countries, plus ESA**
- **ESSC is supported by a secretariat of four staff**
- **ESSC is composed of 25 experts across four panels**
  - *Nominated ad-personam*
  - *Large turn-over since last meeting*
- **Two plenary meetings/year**

- The four ESSC panels allow cutting across all/most domains of space sciences
- Members' interests declared
- Consensual positions and recommendations from ESSC are endorsed by representatives from various disciplines
  - *No bias*
  - *Stronger positioning*



# ESSC Chair: Athena Coustenis

## Solar System and Exploration

- **Hermann Opgenoorth**, Earth sciences and space physics (Panel Chair)
- **Athena Coustenis**, outer planets
- **Franck Montmessin**, terrestrial planets
- **Mahesh Anand**, Moon
- **Gerhard Paar**, robotics
- **Kari Muinonen**, small bodies
- **Ester Antonucci**, solar physics
- **Petra Rettberg**: astro/exobiology, biology

## Research in Weightlessness

- **Dominique Langevin**, fluid physics and foams (Panel Chair)
- **NN**, neurology
- **Alexander Chouker**, integrated physiology
- **Berndt Feuerbacher**, solid state physics
- **Hubertus Thomas**, complex plasmas
- **Helen Jane Fraser**, ices & physical sciences
- **NN**, biology
- **Peter Preu**, materials
- **Roberto Piazza**, colloids

## Astronomy and Fundamental physics

- **Stéphane Udry**, exoplanets, (Panel Chair)
- **Conny Aerts**, asteroseismology
- **NN**, high-energy physics
- **Pierre Binetruy**, fundamental physics
- **Paolo de Bernardis**, Ir/sub-mm astronomy
- **Jordi Torra**, galactic astronomy & astrometry

## Earth Sciences

- **Ian Brown**, glaciology (Panel Chair)
- **Heiko Balzer**, land-atmosphere interface
- **Andreas Kääb**, EO and satellite based glaciology
- **NN**, space law
- **NN**, climate
- **Pepijn Veefkind**, Sentinel algorithms and climate
- **Maarten Krol**, atmos. Phys. & chemistry, climate
- **Laurence Eymard**, ocean/atmosphere

## International Environment

### European Union

- FP7 Space Advisory Group (individuals)
- FP7/H2020 stakeholder consultations
- Direct interactions with programme executives

### National Space Agencies

- Annual meeting with ESSC Funding Organisations
- UKSA's SPAC
- Swedish national committee

### ESA

- Council at Ministerial level
- High-level Science Policy Advisory Committee (ex-Officio)
- Scientific advisory committees at programme level (ex-Officio)
- Meetings with programme executives

- COSPAR Science Advisory Committee (ex-officio)
- UN Office of Outer Space Affairs (exchange of observers and NEO Action Team 14)

- US National Academies Space Studies Board (ex-officio)



# Overarching Science Policy Advice

- High level policy recommendations to the council at ministerial level
- High level policy recommendations to the council at ministerial level on space science
- *Pro-Active* space science communication recommendations to national institutions



# Specific Scientific Advice

- When specialist targeted independent advice is required
- Setting up of *ad-hoc* committees and panels
- Commissioned Studies
  - *Evaluation of ESA Microgravity Programme*
  - *Strategic advice on planetary protection*
- Pro-Active disciplinary foresight - Roadmaps
  - *Astrobiology and life in extreme environments*
  - *Human space exploration*
  - *Nuclear propulsion*
  - *Technology development*





# Cooperation and collaboration in space discussed between SSB & ESF since 1976

**9 joint reports over 32 years**



***[www.esf.org/space](http://www.esf.org/space)***