Perspectivas a largo plazo:

ESF -> Science Europe

HORIZON 2020 – European Comission

ESF –> Science Europe

European Science Foundation (1974)
67 organizations in 29 countries (**Spain CSIC and MINECO**)

Tasks:

Science Strategy: Provides high-level and high-quality foresight and advice on science, research infrastructure and science policy issues.

Science Synergy: Brings together excellent scientists to advance the frontiers of research. Activities include EUROCORES, Research Networking Programmes and ESF Research Conferences.

Science Management
The ESF has a coordinating role in some projects funded by the European Commission.

Scientific Standing Committees

- European Medical Research Councils (EMRC)
- Humanities (SCH)
- Life, Earth and Environmental Sciences (LESC)
- Physical and Engineering Sciences (PESC)
- Social Sciences (SCSS)

Expert Boards and Committees

- Committee on Radio Astronomy Frequencies (CRAF)
- European Polar Board (EPB)
- European Space Sciences Committee (ESSC)
- Marine Board – ESF (MB-ESF)
- Materials Science and Engineering (MatSEEC)Biographies
- Nuclear Physics European Collaboration Committee (NuPECC)

- 2009: ESF and EUROHORCS (European Heads of Reserarch Councils) developed a RoadMap for ERA (European Research Area)

- Science Europe was created in 2011, it is supported by 50 funding organizations

- Science Europe will focus on foresight, science policy and interaction with EC

- ESF will disappear in 2015 (decission postponed to 2014): No RNP, Eurocores etc..

- Some of the tasks, the boards, will probably continue under a TBD organization

- …

Horizon 2020 - European Commission

Space Sciences in the European Commission Horizon2020 programme (Based on a report presented by the EC at the last ESSC)

- The overall H2020 budget for space sciences is proposed to be at 1.7B€ level. 240M€/year over 7 years

- Space is specifically mentioned in the "industrial leadership" pillar, is also relevant to the other two pillars: excellent science and societal challenges.

The four main objectives are:

- Enhance competitiveness, non-dependence and innovation of EU sector
- Enable advances in space technologies
- Increase exploitation of space data
- Enable participation in international space partnerships

A flexible range of instruments: the basis are:

- **Open competitive call**
- **Co-funding grants for research (100%) and innovation (70%)**
- **Trans-national (> 3 consortia)**
- **Open to international participation**
- **Link projects in multi-annual Strategic Research Clusters**
- **Calls based on annual work programmes and agenda-driven research (GMES, Galileo, SRCs)**

Strategic Research Clusters

SRCs will be multi-annual funding frameworks implemented over the whole duration of H2020. **SRCs will address high-level strategic issues that have well defined long-term objectives and that require a coherent and coordinated articulation of various smaller initiatives (each funded through H2020 calls)**.

The topics of SRCs will have to contribute to competiveness and non-dependence of the European space sector, both in industry and research. It is envisaged that the topic of an individual SRC is a field where:

- Europe has heritage in,
- Europe can achieve a leading position,
- the topic can be a European strong-hold in international partnerships.

Principles governing SRC topics are synergy and complementarity: SRCs should have no risk of programmatic duplication with national, ESA or other EU programs.

Strategic Research Clusters (II)

Each SRC will have 5-8 years of development horizon and should have a clear end objective. The European Commission sees the annual calls (such as implemented in FP7) as the baseline for supporting R&D. The 'SRC' mode will only be used if there are compelling arguments to do so:

1. a multi-annual strategic approach is needed (in the form of a roadmap) to achieve a more complex goal

AND

2. there is a need to link projects in a programmatic manner (i.e. results from one project will have an impact on other projects in the SRC)

Topics not eligible for SRCs would be still relevant for annual calls implemented within H2020

A total of 1.7B€ budget is currently proposed for Space R&D within H2020 (240M€/year on average). About half of this budget could be spent on six to seven SRCs (although the exact number is not yet fixed). The expected budget is around 100M€ per SRC for the duration of H2020. *Note that these figures are just proposals and that formal decisions will have to be made on the actual implementation of SRCs and the relevant funding levels*.

Strategic Research Clusters (III)

So far, the EC has already identified two SRCs: **GMES** (Copernicus as of December 2012) and **Galileo**. Four to five additional SRCs will have to be identified in the coming months. The EC services provided six examples of what could be future SRCs:

In the field of Space Situational Awareness
- Debris mitigation and removal
- Near Earth Object observation & collision mitigation

In the field of Space Exploration
- Robotic technologies (e.g. including sample handling, vision related concepts, autonomy, interaction between robotic elements, teleoperations)
- Innovative mission concepts (e.g. cubesat, lander networks, balloons)
- RTD enabling future human exploration (e.g. habitats, life support systems)

In the field of Generic application
- High power generation & electric propulsion

Strategic Research Clusters (IV)

ESSC Survey Questionnaire:

The following questions are addressed via an online questionnaire: https://www.research.net/s/ESSC_SRC.

The survey will close on 8 February 2013

Consultation with stakeholders. Madrid 18/19 Feb 2013