

ESSC Address to the ESA Council at Ministerial level

J.P. Swings, ESSC Chair

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Madame Chair, Vice-President Verheugen, Ministers, Monsieur le Directeur Général, Ladies and Gentlemen, thank you for this opportunity to express the views of the scientific community.

The European Space Sciences Committee of the European Science Foundation is the leading European independent advisory body on matters of space sciences. Allow me to go directly to the main conclusions of our activities since Berlin, which are relevant to this Council and are extracted from our detailed position paper¹, which is available in print and I hope will be circulated to the participants of this conference:

- **In a general frame, and concerning the promotion of Europe**, policy makers should stress clearly, and in a prominent fashion, that the involvement in first class (space) science is absolutely essential for the promotion of European interests and, why not, leadership, as it imparts a strong strategic drive to its technological and industrial system.
- **More specifically concerning first of all the management of space data**, a very important issue not sufficiently stressed, the ESSC-ESF strongly recommends that ways be found to support the analysis, interpretation, archiving, and distribution of space data and thus generate a high-quality return on the investments made by Europe in building satellites and outstanding instruments; in particular the ESSC-ESF

¹ Recommendations to the Ministerial Conference of ESA Member States, ESSC-ESF, ISBN 2-912049-87-3, European Science Foundation, Strasbourg, October 2008.

encourages ESA with the European Commission to consider the relevant mechanisms for the funding of scientific database exploitation techniques.

- **Then concerning critical technologies for European non-dependence**, The ESSC-ESF recommends supporting research and development for innovative technology activities in space science and exploration in order to ensure European independence in critical areas and provide an added value to ESA's future developments.
- **Concerning now the level of funding for ESA's science-relevant programmes**, the ESSC supports the budget requests of the three ESA directorates carrying out science programmes, as laid down in the Director General's proposal. In particular, we recommend:
 - ❖ **for the Science programme**: to ensure the feasibility and implementation of the Cosmic Vision 2015-2025 programme within the timeframe foreseen and with the goal to reach 500 M€ per year for the Level of Resources. In addition a clear financial separation should be maintained between the Science and the Exploration programmes; I'll come back to this.
 - ❖ **for the Earth observation programme**: the ESSC-ESF supports ESA's Earth Explorer component as the important mechanism for the realization of scientific and technological development in support of European Earth observation missions. Furthermore, and due to the coherence of the 'ESA Initiative in Support of Climate Change Monitoring', with documents that are recognized in the global context as a binding reference, the ESSC-ESF strongly supports the acknowledgement and implementation of this suggested programme.
 - ❖ **for the GMES/Kopernikus aspects**, any relevant monitoring task, whether related to environmental issues or safety questions, on a regional or global scale, needs historical references for comparison and judgement of the true relevance of the observed change(s). The ESSC-ESF therefore points to the

importance of funding data archive maintenance and database pre-processing.

We really insist on this important data issue.

❖ **for the life and physical sciences in space programme (ELIPS)**, the era that begun in February 2008 with the attachment of the Columbus orbital laboratory to the ISS, followed by the successful docking of the ATV Jules Verne, must significantly increase the return on European investment in the ISS. The ELIPS programme must thus be continued through its Phase 3 because science utilization and return will sharply increase with Columbus in full operation. In order to achieve maximum output and return on investment, the corresponding funding level has therefore to be raised accordingly. This is vigorously emphasised in the ESSC report that has just become available.

❖ **for the Exploration programme**, the highest present strategic priority for European scientists is definitely the robotic exploration of Mars. The overarching science goal of this programme should be called “Emergence and co-evolution of life with its planetary environments”, with the long-term programmatic goal of sending humans to Mars and, of course, the necessary intermediate steps. Now that robotic exploration has been reorganized within ESA it is essential that the scientific aspects of this programme become embedded within the mission architecture of D-SRE, its technology aspects within D-TEC, and that a sustained and high-profile education and public outreach programme be implemented. Finally the different objectives of the Exploration programme must be recognised and must not be allowed to deplete the mandatory science programme or the ELIPS programme through budget inadequacies. So, no zero-sum game, or, en français, pas de vase communicant.

Thank you very much.