



ESSC statement on the outcome of the ESA Council at Ministerial level

Strasbourg, 21 December 2012

The European Space Sciences Committee of the European Science Foundation (ESSC-ESF) participated with observer status to the ESA Council at Ministerial level held in Naples on 20-21 November 2012. It provided an oral statement during the council meeting, based on its position paper published in September. The ESSC met in plenary session on 26-27 November 2012 and is commenting here on the impact for science-relevant ESA's programmes resulting from the decisions (or lack of) taken in Naples.

- **Concerning the promotion of Europe**, and in order to promote sustained development and safeguard future high-level technology the ESSC supported the view that some 5% of the 120 billion euro stimulation package agreed by the EU Heads of States should be made available to the space sector. No decision has been taken on this recommendation while the ESSC strongly feels that implementing it would represent an important and politically visible commitment to support competitiveness and growth for the space sector, in line with the agenda of the ESA Director General. Pro-active measures should indeed be taken to stimulate research development and education in the space sector, which is a present and future driver for innovation and jobs in Europe.
- **Concerning the management of space data**, no specific decision was taken but the *Political Declaration towards the European Space Agency that best serves Europe* that was approved in Naples, and the subsequent decisions to be taken in the coming years by the EU, ESA and their Member States could provide means to support the analysis, interpretation, archiving, and distribution of space data and thus, to generate the required high-quality return on the investments made by Europe in building satellites and outstanding instruments.
- **Concerning the level of funding for ESA's science-relevant programmes**, the ESSC supported the budget requests of the three ESA directorates carrying out scientific programmes, as laid down in the Director General's proposal.
 - ❖ **For the Science Programme**, the outcome of this ministerial council is that there is now a loss of inflation compensation. The addition of new contributions by Poland and Romania implies that, although the purchasing power will be lower, it will remain broadly similar to the present one and approximately flat over the next five years, i.e. close to the assumption by the Science Programme planning. The ESSC is worried about the effects that this decision will have on the present elements of the programme, although it is pleased to see that the erosion of the purchasing power of the Science Programme has been limited. It recommends prioritising the scientific return of the Science Programme, if any cuts to the present elements of the program have to be considered. In particular potential cuts in mission extensions should be discussed versus the impact of small delays in future missions, in order to achieve an optimum balance between both elements.
 - ❖ **For the optional robotic exploration programme (ExoMars)**, the community is facing a quite chaotic situation: the 2016 segment appears secure, but the scientific return will basically be limited to the orbiter with a very minor contribution from the lander. The situation of the 2018 mission remains quite unclear and is a source of frustration for the community that continues to be concerned about accomplishing a complex mission with a potential for high science return within the managerial framework of the ExoMars program. The ESSC welcomes the advances made in Naples with the approval of the DG's proposal but would have expected a stronger statement regarding the importance of the mission for the European planetary science, and a clearer strategy

to bring the mission to fruition. **For the optional Lunar Lander programme**, the ESSC reiterates its view that lunar exploration should be an integral part of ESA's Exploration Programme and thus regrets that this proposal was not subscribed in Naples, since it would have been an excellent opportunity to secure a leading role for Europe in future lunar exploration. Overall the ESSC reiterates its view that Europe should continue to play a leading role in the developing Global Exploration Strategy.

- ❖ **For the Earth observation programme**, the ESSC is concerned about the situation of the Earth Observation Envelope programme (4th phase). There is no secured perspective for new missions, in particular for Earth Explorer 8, which may in particular result in a lack of development of future critical technologies. A first priority should therefore be to secure Earth Explorer 7 and, particularly, Earth Explorer 8. The science part of the Earth Observation budget has suffered from budgetary cuts in Naples, and the ESSC would therefore like to stress again that particular caution should be applied in the current difficult economic context, not to significantly deplete the resources made available to existing envelope and optional programmes. In particular the science part of the Earth Observation budget should include a larger mandatory component.
- ❖ **For GMES-related aspects**, the ESSC is concerned about the current complex and undefined situation of GMES. As a result, confidence in the operational long-term commitment for GMES is being lost in the community of users. The ESSC suggests that a deep analysis and a posteriori evaluation of the whole GMES governance structures be conducted, including: decision-making process; planning and decision-making processes for the space and ground segments and GMES downstream services; FP7 GMES projects/programme evaluation; GMES service element evaluation (and how it fits with original expectations). From this analysis an outline scenario for the future could be developed and allow in particular (i) a decision on whether ESA should position itself as an Earth Observation operational and/or R&D organisation; and (ii) a clarification of the relations between ESA and EC to ensure better coordination of the GMES programme. There is a requirement to think about a new model for GMES governance beyond 2020. Regarding GSC-3, it is of crucial importance to secure the requested budget at the next ministerial conference in 2014 in order to continue the Sentinel 5 development, in line with the development of METOP SG.
- ❖ **For the life and physical sciences in space programme (ELIPS)**, the ESSC regrets that its recommendation regarding the need to agree on a post-ISS/post-2020 framework was not followed up. ESA's participation in the MPCV with NASA is seen as a positive step, as it would provide LEO access and exploration capabilities beyond 2020, as could also the Russian free-flyer project and the Chinese opportunity. However the ESSC wishes to stress that Europe is not in a position to execute its scientific objectives by itself, while science questions to be addressed in LEO have the potential to become breakthrough science, in particular in fundamental physics, life and materials sciences. The envelope obtained in Naples is insufficient to develop these new topics, and it is barely sufficient to continue the current planning. In addition the foreseen timescale is problematic, implying a risk that everything is 'shifted to the right'. With an end date in 2020, the window to conduct research is becoming smaller. The ESSC recommends that ESA defines the next generation of highest quality scientific research domains, implements and executes a research programme based on these high quality topics and aims at securing the corresponding funding at the next Ministerial Council in 2014.
- ❖ **Regarding international collaboration**, the ESSC regrets that a specific opportunity to collaborate with China did not materialise. Opening collaborations with other partners, in addition to NASA, will be highly beneficial for the near future.

Overall, despite some of the positive outcomes of the 2012 Ministerial Council, the ESSC is concerned about a number of "non-issues" at the Naples meeting. Deferring these issues to the next ministerial council in 2014 in an uncertain economic situation has the risk that these issues will not be solved at all. The ESSC is ready to contribute to a consolidated reflexion on the scientific and programmatic aspects of these issues.