

Year in Review

2005 was a crucial year in the Agency's long-term development, with a great deal of time and effort inevitably devoted to preparing for the political and programmatic decisions to be taken at the ESA Council Meeting at Ministerial Level in Berlin at the beginning of December. Those decisions by the Ministers put ESA on the correct trajectory, providing a long-term vision based on strategic guidelines, allowing us to prepare for the future, and addressing a consistent set of policies and programmes, aiming at increased efficiency and coherence within the Agency and in the European space sector. Overall, the decisions taken during this Ministerial Council represent 8.5 billion Euros of investment for the continuation of ongoing programmes and for new programmes.

ESA accumulated a long list of successes in 2005, many of which were instrumental in the successful outcome of the Ministerial Council. I believe that there were three reasons in particular for its success. First of all, the Agency's space missions were highly successful throughout the year. Secondly, the preparations for the Ministerial Council were very well executed and timely, and adhered to the roadmap that was presented to the Delegations in June. The new activities that were presented for decision in Berlin were based on exactly the same priorities that had been presented to Council in March 2004, namely Telecommunications, Exploration and GMES. Thirdly, there was the highly skilled chairmanship of Dutch Minister Laurens Jan Brinkhorst, who had an excellent rapport with his fellow Ministers.

An essential political decision taken in Berlin concerns the European launcher procurement policy, allowing full coherence to be ensured between ESA's satellite and launcher policies. We must now strive to ensure that this policy can be widened at overall European level. Another key topic concerned technology, which Ministers agreed is critical for the future of the European space sector and requires an approach coherent with the programmatic developments. Finally, another keyword was efficiency; ESA must demonstrate its efficiency, and where possible improve it, so as to maintain Member States' confidence that the Agency can and does deliver value for money.

The programmatic decisions taken by the Ministers were focused on discovery and competitiveness, which were the two themes of the Ministerial Council, and concerned:



1. The Agency's Mandatory Activities and the Level of Resources for 2006-2010 (Scientific Programme and basic activities).
2. Continuation of Ongoing Programmes, with subscriptions for:
 - the Earth Observation Envelope Programme
 - the International Space Station Exploitation Programme (Period-2), and the European ELIPS Programme (Period-2)
 - launcher evolution
 - Advanced Research in Telecommunications Systems (ARTES).
3. New Programmes, with subscriptions for:
 - the Global Monitoring for Environment and Security (GMES) space component
 - the European Space Exploration Programme 'Aurora'
 - the preparation of future launchers
 - the General Support Technology Programme (GSTP), for the preparation of new technology programmes.

Milestones in 2005

14 January: The Huygens probe successfully explores the atmosphere and surface of Saturn's largest moon Titan.

19 January: Signature in Moscow by ESA Director General, Jean-Jacques Dordain, and the Head of the Russian Federal Space Agency, Anatoly Perminov, of an Agreement for long-term cooperation and partnership in the development, implementation and use of launchers.

10 February: The ESA Science Programme Committee (SPC) approves a four-year extension of the Cluster mission, to December 2009.

4 March: The Rosetta spacecraft makes a close flyby of the Earth, passing within just 1900 km.

9 March: Greece formally becomes the 16th ESA Member State.

17 March: The ESA Council approves a cooperation agreement between the Agency and ISRO for India's first Moon mission, Chandrayaan-1, planned for launch in 2007/2008.

15 April: ESA astronaut Roberto Vittori is launched to the International Space Station aboard Soyuz-TMA6/10S, returning to Earth on 25 April.

21 April: The ERS-2 satellite and all its instruments continue operations 10 years and 52 289 orbits after launch.

2 May: Maser-10 is launched from Kiruna (S), providing 6 minutes of microgravity to five experiments and reaching 252 km altitude.

31 May: ESA celebrates its 30th birthday.

31 May: Launch of Foton-M2 from Baikonur carrying 385 kg of European experiments, returning to Earth on 16 June.

31 May: ESA and the European Centre for Medium-Range Weather Forecasts (ECMWF) sign a long-term Agreement to exchange information and expertise.

1 June: René Oosterlinck takes up duty as ESA's Director of External Relations.

7 June: The Second Space Council is held, in Luxembourg.

16 June: The development contract for the AlphaBus platform is signed by ESA, CNES, EADS Astrium and Alcatel Space.

22 June: The ESA Council elects Sigmar Wittig (D) as its new Chairman from 1 July, taking over from Per Tegnér (S).

27 June: ESA and ISRO sign an Agreement to include European instruments onboard India's first mission to the Moon, Chandrayaan-1.

30 June: Luxembourg formally becomes the 17th ESA Member State.

5 August: The SOHO mission discovers its 1000th comet.

27 September: The SMART-1 spacecraft completes 2 years of operations.

28 September: ESA's 35 metre deep-space antenna at Cebreros, in Spain, is inaugurated.

6 October: The Ulysses mission completes 15 years of operations.

8 October: ESA's first Earth Explorer mission, CryoSat, is lost due to the failure of its Russian launcher.

17 October: The Integral spacecraft completes 3 years of operations.

22 October: The Proba-1 spacecraft completes 4 years of operations.

26 October: ESA and the EC's Joint Research Centre sign an Agreement on space-based information services and access to, and provision of, Earth-observation data.

27 October: The ESA-sponsored SSETI Express student satellite is launched from Plesetsk Cosmodrome, in Russia.

9 November: ESA's first mission to Venus, Venus Express, is launched from Baikonur Cosmodrome, in Kazakhstan.

16 November: Successful third flight (V167) of the Ariane-5 ECA launcher.

18 November: Sun Laiyan, Administrator of the China National Space Administration, and ESA Director General Jean-Jacques Dordain sign an Intergovernmental Framework Agreement on space cooperation for peaceful purposes.

21 November: The ESA Science Programme Committee (SPC) approves the extension of the Integral and XMM-Newton missions by 4 years, until 16 December and 31 March 2010, respectively.

26 November: ESA Director General Jean-Jacques Dordain and the Portuguese Minister of Science, Technology and Universities, Prof. José Mariano Gago, sign an Agreement for an ESA transportable tracking station in the Azores.

28 November: Global Monitoring for Environment and Security (GMES) is the main agenda item at the Third Space Council, in Brussels.

1 December: The ESA/DLR-funded Texus-42 sounding rocket is launched from Esrange (S) and provides 6.5 minutes of microgravity for a payload that includes the Electromagnetic Levitator (EML) for the IMPRESS project.

2 December: The SOHO mission celebrates 10 years of operations.

5/6 December: The ESA Council at Ministerial Level, in Berlin (D), approves an increase in Science funding, continued funding to EOEP, ISS Exploitation Phase-2, ELIPS Phase-2 and ARTES, and new projects GMES, ExoMars, Aurora, and future-launchers preparation.

9 December: The Artemis spacecraft achieves the first bi-directional laser link in space, with Japan's Kirari satellite.

21 December: The MSG-2 satellite is launched by an Ariane-5 (V169).

28 December: The GIOVE-A Galileo experimental satellite is launched from the Baikonur Cosmodrome, in Kazakhstan.

In programmatic terms, 2005 was the year of the scientific missions, starting with the Huygens landing on Titan, continuing with Mars Express and the deployment of its Marsis radar, the launch of Venus Express, and the results from Smart-1, all of which could not fail to have had a positive influence in the Ministers' decision to increase the budget for Science, even if it was by a relatively small amount. In the same vein, all that we have achieved in Earth Observation, and especially with the much-publicised

Envisat results, was instrumental in the positive decision that was taken on the GMES programme.

On launchers, not only the fact that we had managed to put Ariane-5 ECA back on track, but also the successful test firing of the Vega third stage and the signature of the contract for the Soyuz installation in French Guiana, all contributed to the positive decisions that were taken on the longer-term future of this ESA programme.

Galileo was also a very important example in terms of what ESA was able to achieve in 2005, with the successful resolution at the end of October of a situation whereby progress had been blocked for several months. Immediately thereafter, in just a matter of weeks, we managed to complete the negotiation with Galileo Industries of the industrial contract for the development and construction of the first four satellites for the European navigation system, valued at almost 1 billion Euros. Moreover, on 28 December, we successfully launched and began operating GIOVE-A (Galileo In-Orbit Validation Element), to secure the use of the frequencies allocated by the International Telecommunication Union (ITU) for the Galileo system.

These and the many other successes that ESA enjoyed in 2005 (noted in the accompanying 'Milestones' panel) also changed the way in which some Member States were looking at the Agency. It was also gratifying at the Ministerial Council to see increases in the contributions from several Member States, both large and small. Again, I think that this was also because we have demonstrated to our Member States that money invested in ESA is money well spent. The fact that Greece and Luxembourg formally joined the Agency in 2005, as the 16th and 17th Member States, can be seen as a further vote of confidence in ESA's programmes.

The image of the Agency on the wider international scene has also changed. Two weeks after the landing of Huygens on Titan, I met with my Heads of Agency colleagues regarding the International Space Station, and they were certainly impressed by ESA being the first space agency to land a spacecraft on this remote Saturnian moon. I also signed several important international Agreements for ESA during the year with partner countries and agencies, including one with ISRO concerning cooperation on India's Chandrayaan-1 lunar mission, and another with the Government of the People's Republic of China covering space cooperation for peaceful purposes.

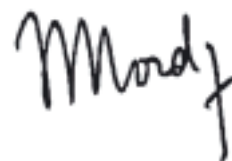
In addition to the Ministerial Council in Berlin, there were two Space Councils in 2005 – joint meetings of the European Union and ESA Councils at Ministerial Level involving a total of 29 Ministers – which were also instrumental for ESA's future. The Second Space Council in Luxembourg in June defined the sharing of roles and responsibilities between the European Commission and ESA. Importantly for the Agency, it recognised the leadership of ESA in science,

launchers and technology, as well as in space infrastructure, while that of the EU is recognised primarily in the applications domain, for Galileo and GMES. The Third Space Council, meeting in Brussels at the end of November, put in place the political foundation for GMES, which has already proved useful for the decisions that had to be taken at the ESA Ministerial Council in December.

I would also like to mention one more historic meeting in 2005, namely that of the Council at Delegate level in June, at which the main guidelines for a significant reform of the ESA financial system were decided. It will provide greater and much-needed flexibility in the way the various budgets are administered during the year, and also from one year to next. For the first time in the Agency's history, the Council also managed to agree not only on a minimum geographical return to Member States for the next four-year period, but also on a minimum return per project that is 10% lower than the minimum return on global activity, which also provides some additional flexibility.

So all that I have recounted above was certainly good news for the Agency and its future. The only sad note in 2005 in terms of missions was the failure of the launch of CryoSat on 8 October. However, considerable progress was made before the end of the year towards the launch of a CryoSat-2; a few obstacles remain to be overcome, but I am confident that a CryoSat-2 will indeed be launched in 2009.

I would like to take this opportunity to thank the Member States for their unstinting support throughout 2005, the ESA Executive and staff for their selfless efforts, often working very long hours indeed, and European space industry for the quality and reliability of its products, all of which together make the European Space Programme such an outstanding success.



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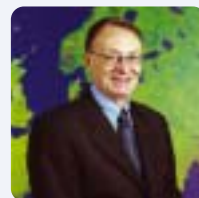
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