

# European Space Policy: the Green Paper process

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# Introduction

## The Green Paper Process - forging a future Space Policy for Europe

The Green Paper on European Space Policy was adopted by the European Commission on 21 January 2003. Its aim was to initiate a debate on the medium- and long-term future use of space for the benefit of Europe. The Green Paper Process has encompassed a series of events, workshops and meetings spanning the continent and drawing contributions from hundreds of representatives of the space community. The debate was open to anyone with an opinion, from the most powerful industrial and institutional players down to the ordinary citizen.

The European Commission and the European Space Agency (ESA) sponsored joint workshops in several European capitals, focussing on specific themes and communities. Following the opening workshop in Brussels, the Madrid meeting focussed on the contribution of the industrial sector. The Berlin workshop brought the scientific community together. Participants in Rome addressed challenging institutional issues, while London and Prague featured debates on applications and the role of international co-operation, respectively. Additional events were held in Lisbon, Athens and Vienna, addressing issues of particular national importance. Hi-level bilateral consultations also took place and

many organisations responded directly to the Commission. Finally, individual citizens were invited to contribute their views via the internet.

By all accounts, the Green Paper Process has been a major success, drawing contributions from every European institution, all of the European Union and ESA Member States and all of the major space organisations, both inside and outside of Europe, and garnering significant media attention.

The Paris Conference represents the last stage of the Green Paper Process and has three specific objectives. First, it finalises the consultation process, taking stock of all of the contributions and viewpoints regarding the Green Paper's main strategic issues. Second, it will establish areas of consensus to be set forth in a 'White Paper'. Finally, it paves the way for the creation of an ambitious yet realistic Action Plan, a road map for space activities in Europe over the coming decades.

This brochure is meant to provide a brief overview of the Space Green Paper Process. The following pages include short descriptions of the various consultation events as well as some preliminary observations.



# The Green Paper Consultation Events

## Brussels Inaugural Conference (6 March 2003)

Although essentially intended as a kick-off meeting, the Brussels workshop constituted an important contribution to the consultation process in its own right, underlining the need for a new vision for European space activities. Main highlights included:



Research Commissioner Philippe Busquin

- Addressing the institutional framework in which space activities could be placed and speaking specifically about the role of space in the future European Treaty, former Belgian Prime Minister and Vice-Chairman of the European Convention Jean-Luc Dehaene introduced the concept of space as a shared competence.
- In addition to strong interest in satellite applications, the role of space science was underlined, as a driver for technological innovation and the development of new applications. Specific guidelines for co-operation and co-ordination within and among national and international programmes, and for strengthening the scientific community were called for.



photo: Peter Gutierrez

- The concept of a highly visible and inspirational flagship programme was discussed, aimed at stimulating interest in space, particularly among the younger generation.
- In a new departure for Europe, discussion of space applications gave rise to an exchange of views on the concept of dual- or multiple-use technologies. This essentially means using the same satellite systems for both civil and defence and security purposes.

## Madrid: the Industrial View (25 March 2003)

The Madrid meeting provided the opportunity for an extended discussion of the current critical situation within the European space industry, covering not only satellites and launchers, but also system operators, ground segment interests and the insurance market. Highlights of the meeting included:



Pascale Sourisse, EUROSPACE President and Madrid workshop Rapporteur

photo: Peter Gutierrez

- The need for an institutional market which fully recognises the potential of space in addressing civil policy objectives, including communication, navigation, basic science and monitoring of climate change and environmental damage, was noted. Such recognition along with harmonisation of public programmes would substantially increase the viability of the space industry.



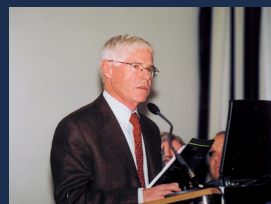
Photo: ESA

- Independent, reliable and affordable access to space was seen as mandatory for Europe.
- The workshop noted that international co-operation remains attractive in numerous areas and is not incompatible with the objective of European autonomy. A particular example of such co-operation, the International Space Station (ISS), was cited. Seen primarily as primarily a political tool, the ISS represents a long-term investment for the benefit of future generations, not necessarily a commercially viable business.
- As at the Brussels workshop, interest in space among the public was addressed, particularly with respect to new and ambitious European programmes and their attraction for young engineers. A further common theme was the major role to be played by the EU in ensuring a harmonised and well-founded regulatory framework across Europe.
- The need for a European Security and Defence Agency was stressed in the context of discussions of multiple-use systems. The inclusion of space within the Treaty, both as an objective and as a shared competence of the Union, was also supported.
- Participants stressed that, without a sufficiently ambitious European space policy, the current restructuring being undertaken within the European space industry will not lead to a stronger industrial base. New vocations and competencies cannot be expected to develop without the underpinning of a long-term programme supported by a solid political commitment.

## Berlin: the view of the Scientific Community (8 April 2003)

The Berlin meeting concentrated on European space science. In particular, it underlined the sometimes underestimated role of science in space activities, not least in making available key technology developments. The main highlights were:

- A call was made for stopping the reduction of funds for European science research. A proposal was made to develop a mandatory programme for earth observation (Earth Explorer missions) with a level of resources comparable to that of the space science programme. The scientific role of the 'Global Monitoring for Environmental Security' (GMES) programme was stressed, as was the synergy between research and development of scientific and defence requirements.



Roger Bonnet, former ESA Director of Science and Berlin workshop Rapporteur

Photo: Peter Gutierrez

- The exploitation of data was seen as a problem common to scientific and applications programmes. The need for a data policy harmonised at European level was underlined, with the European Commission supporting a powerful data processing system for climate forecasts and global change monitoring. This was accompanied by a call for sustained funding and long-term continuity of observing systems, information availability, data delivery and cost-effectiveness. Mandatory public funding should be considered to support the availability and distribution of data from key observing systems. The EUMETSAT organisation was identified as the reference for such issues.

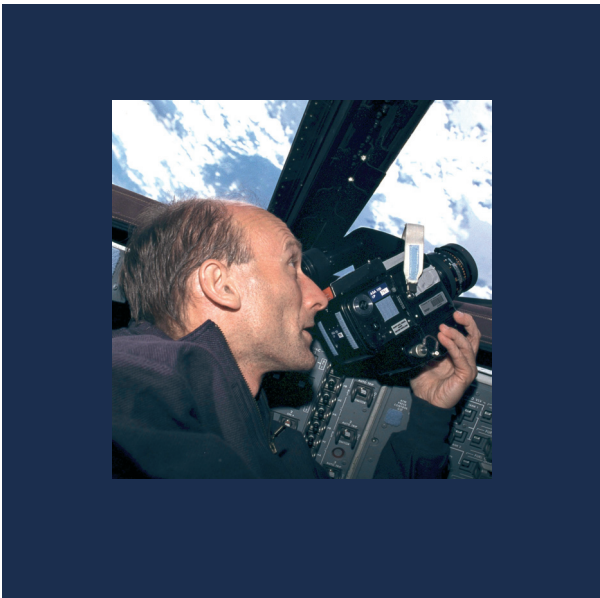


photo: ESA

- Discussion of the International Space Station underlined its high suitability as a base for microgravity research, as well as for research in the life and physical sciences. The role of the European astronauts as ambassadors and purveyors of a European identity was also recognised.
- The political and strategic need for Europe to maintain and develop its own means of access to space was stressed, with the proviso that additional costs linked to this need should not reduce the existing science budget. The need for a well-engineered launch infrastructure was also highlighted.
- The Aurora programme, which seeks to put a human on Mars within the next 30 years, was seen as a promising initiative, a programme around which the European Union could establish and sustain a significant level activity over the medium to long term.
- Finally, the role of the European Union as a contributor to horizontal and infrastructure activities was stressed, with a number of fields identified for consideration. They include an independent data systems network, ISS utilisation, critical technologies for payloads, development of future nuclear and electric propulsion systems, data analysis and archiving.

## Rome: Institutional Issues (28 April 2003)

The workshop in Rome was aimed at registering the views and reactions of the institutional sector, including governments and other public institutions. The following conclusions were reached:

- The need for independent access to space and the role of the EGAS (European Guaranteed Access to Space) programme were confirmed.
- The role of science as an enabler for future applications and commercial activities was developed. In order to secure the health of the sector, a doubling of the science budget was cited as a long-term goal.



Carl Bildt, former Prime Minister of Sweden and Rome workshop Rapporteur

photo: Peter Gutierrez

- The critical situation in which the European space industry currently finds itself was noted. In order to remedy the situation and to ensure at least a 'level playing field' with respect to the United States, a doubling of the total yearly public investment was considered a critical medium- to long-term goal.



- Applications were seen as the core area of space activities. The role of space as an important tool for the implementation of key Union policies and objectives, including the knowledge society, sustainable development and European defence and security, was also confirmed.

- With respect to Space Policy and the institutional context, it was confirmed that a 'space landscape' without an important role for the Union was no longer conceivable. In addition the workshop concluded:

- Space policy should be discussed and guided at the highest political level, that is at Ministerial level;
- Space policy should also be reviewed by the European Parliament;
- ESA should become, in some sense, the Space Agency of the Union.

## London: Space Applications (20 May 2003)

The space applications workshop held in London assembled representatives of satellite operators, service providers, users, industry, national space agencies and universities. The wide-ranging discussions highlighted the following points:

- Space applications are important for technology and scientific development and the security of citizens, to attain the goal of an information-based society and for practical utilisation and business exploitation.
- Current industrial problems are linked to the cyclical behaviour of the space business. Depending on the market and strategic situations, dominance in the market moves between commercial and public markets.
- The goal of seamless broadband communications access for everyone in Europe can be achieved using satellite systems. A new programme to develop digital services, and thus to exploit this market, was proposed.



Giuliano Berretta, President of the European Satellite Operators Association (ESOA) and London workshop Rapporteur



- Earth observation technology is mature, particularly in the space segment, but the full exploitation of services still requires public support. The value chain needs to be re-evaluated, while the support of the public sector, as principle user and application developer, remains essential.



Photo: ESA

## Prague: the International Dimension (2 and 3 June 2003)

Located in Prague, capital of one of the accession countries expected to join the Union in 2004, this workshop was designed to highlight the international aspects of a European space policy. Particular points emphasised were:



Reinhard Loosch (right), former Department Head at the German Federal Ministry for Research and Prague workshop Rapporteur

Photo: Peter Guillerrez



Photo: ESA

- The addition of the accession states will create a new Union of 450 million people inhabiting a landmass stretching from Cape St. Vincent in the southwest corner of Portugal, to the Russian, Ukrainian and Belorussian frontiers, and from the Arctic Circle to the central Mediterranean Sea. Island dependencies such as the Canarys and the Azores, overseas departments such as Guyana, Guadeloupe, Martinique and Reunion, and even scientific bases in the Arctic and Antarctic regions further increase the geographical extent of the Union. Satellite technologies correctly and imaginatively exploited in pursuit of identified policy objectives can play a major role in the rapid and efficient provision of modern services to even the most far-flung corners of the Community.
- The new Member States will have a strong interest in rapid inclusion in European space activities. This may include anything from limited participation in individual programmes such as GALILEO and GMES, to associate status within ESA.
- Russia and the Ukraine will become the closest neighbours of the enlarged Union. Both have indicated a willingness to enter into long-term strategic partnerships in key areas such as human spaceflight, launchers, and applications such as navigation and global monitoring.



- The Union and ESA have developed instruments for collaboration, including ESA's PECS programme and international involvement in the EU's Sixth Framework Programme for RTD. These elements now require further co-ordination and refinement.
- Absolute autonomy in space for Europe was seen as unrealistic. Autonomy in strategic areas must be combined with co-operation in others. Where it collaborates, Europe must be a strong partner.

#### • Additional events

- Four other initiatives took place within the Green Paper process. The Greek Presidency convened a workshop in Athens on 8 and 9 May 2003, focusing on defence and security matters, while Austria, Italy and Portugal each held national meetings, supported by the Commission. The United Kingdom Industrial Space Committee presented its views directly to the Commission, while the Belgian authorities organised a national review of space-based defence systems and passed a Resolution on the Green Paper after discussion in the national Senate.

#### • On-line forum

Many contributors chose to participate in the Green Paper via the Internet, using the Commission's dedicated discussion forum to express their views on a number of space-related issues, including all of the topics discussed at the various consultation events. These contributions provided valuable insights into the thinking of individuals not necessarily associated with organised space interests.

#### • Next Steps:

With the broad consultation now at an end, the following sequence of events is scheduled to take place:

- Mid June 2003: The European Economic and Social Committee will submit their contribution to the Green Paper.
- Second half of July 2003: A summary report on the consultation process from the EC/ESA Joint Task Force is expected to be available.
- September 2003: The European Parliament will contribute their views to the Green Paper process.
- October 2003: The Commission is expected to approve the White Paper on European Space Policy, with subsequent submission to the Council and Parliament. The 'White Paper' or action plan will set out a future strategy for space activities within the European Union. It will acknowledge the contributions received, and include proposals for the content, organisation and level of future European space activities.
- November 2003: The White Paper is on the agenda to be discussed by the Council of the European Union at the Competitiveness Council under the Italian Presidency.

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