

## The Brussels Council at Ministerial Level

The 141st meeting of the Council of the European Space Agency, and the eighth at Ministerial Level, took place on 11 and 12 May at the Palais d'Egmont in Brussels. Belgium hosted the meeting at the invitation of Mr Yvan Ylieff, the Belgian Minister for Science Policy and Chairman of the previous Council Meeting at Ministerial Level. During the opening session, Mr Ylieff handed over the Chair to Lord David Sainsbury, the UK Minister responsible for space. In addition to the 13 European Ministers and representatives of the Irish and Canadian Ministers present, representatives from Portugal, the European Commission, Eutelsat, Eumetsat and the European Space Science Committee attended as observers. Three European Commissioners – for Industry, Research and Transport – also participated in the meeting.

The main objective of this Ministerial Council was to shape a space policy that will allow Europe to continue to play a major role in space activities on the world stage. The Ministers responsible for space activities in the Agency's Member States were asked to endorse ESA's new strategy and its role in working with national players, intergovernmental organisations, European Union institutions and industry in order to respond to the challenges of the next millennium. They were also asked to decide, in the context of ESA's Long-Term Plan for the period 1999-2006, on new programmes spanning the fields of space science, access to space (launchers), space applications (Earth observation, telecommunications and navigation), exploitation of the International Space Station and advanced technology. They were also called upon to decide on a Level of Resources for the period 1999-2003 for the Agency's Mandatory Activities.

In the event, the Ministers approved the Level of Resources for the period 1999-2002 (essentially the General Budget and the Science Programme budget) to a total of 2103.2 MEuro (at 1998 economic conditions). This should hopefully enable ESA to implement all of its planned scientific missions.

There is an urgent need to ensure strategic independence for Europe in the field of satellite navigation. The Ministers therefore decided to commit 58.4 MEuro until end-2001 for the definition phase of the Galileo programme being developed in cooperation with the European Union, and even indicated the availability of 178 MEuro for the subsequent development phase (until end-2006). As a result, aircraft, ships, trucks, trains, cars and ambulances will soon be guided and easily located via a constellation of European satellites. Most importantly, Europe will now be able to access the huge markets for navigation-related ground equipment and services.

The Ministers also recognised that European industry needs to increase its share of the worldwide telecommunications market. They therefore allocated 260 MEuro (for the period 1999-2002) to the development of multimedia and information systems, and 30 MEuro for preliminary studies of future systems in the period 2000-2005. Tele-medicine and tele-education are but two examples of the new fields in which space can help improve our quality of life.

Because space offers Europe a unique opportunity for contributing to worldwide efforts towards understanding our environment and managing the natural resources of our planet, the Ministers decided to fund the Living Planet programme, with a commitment of 593 MEuro through to the end of 2002.

Europe also wants to be a strong and valued partner in the International Space Station. The Ministers therefore allocated 298.5 MEuro to the Station's exploitation for the period 2000-2001. Moreover, the Ministers recognised the importance of continuity in the European Microgravity Research Programme and approved the extension of the EMIR-2 programme for the period 1999-2003, allocating 48 MEuro.

To safeguard Europe's independent access to space and its leading position in the



Lord Sainsbury



### Ministers and Senior Representatives of the ESA Member States, in Brussels

#### *First row (from left to right):*

Mr Antonio Rodotà (ESA Director General), Mr Mattie McCabe (Ireland), Mr Josep Piqué (Spain), Mrs Edelgard Bulmahn (Germany), Lord David Sainsbury (United Kingdom), Mr Claude Allègre (France), Mr Yvan Yllef (Belgium), Mrs Mona Sahlin (Sweden)

#### *Second row (from left to right):*

Mr Hugo Parr (ESA Council Chairman), Mr Ortensio Zecchino (Italy), Mrs Annemarie Jorritsma-Lebbink (Netherlands), Mr W.M(Mac) Evans (President, Canadian Space Agency), Mr Caspar Einem (Austria), Mr Jan Trøborg (Denmark), Mr Lars Sponheim (Norway), Mr Kimmo Sasi (Finland), Mr Charles Kleiber (Switzerland)

commercial launcher market, the Ministers decided to fund the Ariane-5 Plus programme, aimed at enhancing the performance of Europe's heavy launcher, with a total of 533 MEuro until 2001. The Ministers allocated 25 MEuro for the extension of the Ariane-5 Infrastructure programme for 2001 and 134 MEuro to Ariane-5 ARTA for the period 2001-2002, so as to place Ariane-5 on a competitive footing and to consolidate its reliability. Moreover, the Future Launcher Technologies Programme received an allocation of 54 MEuro until end-2001. Finally, subject to further studies to be completed by October 1999, it

was agreed to revisit funding of the second step for the development of Vega, the new small launcher.

**The statement made by ESA's Director General, Antonio Rodotà, to the assembled Ministers on the opening morning, the three key Resolutions passed by the Ministerial Council, and the Press Release issued to the media at the close of the meeting on 12 May are all contained in the following pages.**

## Statement to the Ministerial Council by ESA's Director General



Antonio Rodotà

Ministers, Delegates, Ladies and Gentlemen,

It is a real honour for me to have the opportunity to address you today at this Ministerial Council meeting, at which you will discuss subjects that are crucial to the future of the Agency and the entire space sector in Europe.

This meeting is taking place at a strategic moment when space is also at the centre of debate in the United States, for various reasons:

- the new Commercial Space Act, which is creating a new potential barrier between the USA and the rest of the world
- the large increase in the US budget for research, and for some defence activities with substantial spin-off for the commercial sector
- the serious problems that the US launcher industry is suffering, with the recent series of failures.

At this Ministerial Council, Europe is addressing strategic problems of vital importance to our future and I sincerely hope that the conclusions that you will reach are going to lend fresh impetus to European space activities.

You have already received our proposal. I would like in a moment to convey some figures which will, I hope, give you even more confidence in the decisions you are invited to take in order to shape the future of the space sector in Europe, a process made all the more difficult by the budgetary constraints currently prevailing in most Member States.

You all know that space is a fast-expanding sector, in which Europe is playing an important role. The total turnover for world space activities, including related services, is today estimated at 90 billion US dollars, with the commercial sector expanding at about 20% a year and employing around 1 million people worldwide.

Although investment in Europe is 15% of the world total, Europe presently has more than 40% of the commercial launcher market, and around 20% of the commercial satellite market. However, competition is becoming fiercer and massive investment is needed to maintain the position that we have achieved and possibly to build on it by taking our share of the fast-growing information market.



The scientific sector has been a pillar of space activity in Europe and it is still leading world research in many areas.

I think we have reason to be proud of what Europe has achieved so far. I would like just to emphasise the point with a few more figures:

- In 1998, the insurance companies paid out 640 million US dollars in claims for launch failures, none of them European launcher failures; in the same year they paid out 1.15 billion US dollars for satellite failures in orbit, of which only 67 million - less than 7% - was for European satellites.
- I would like to share with you the pride of Arianespace in its record of 44 consecutive perfect Ariane-4 launches and ESA's pride in the qualification of Ariane-5, which will open up new market opportunities.
- I would like to draw your attention to the fact that 43 of the 46 satellites launched by ESA have operated on average of 2.5 times as long as originally planned, and only three have not lasted for their planned lifetime. This equates to greater value for money. For instance, one of these ESA satellites, ECS, is now part of the Eutelsat fleet and after 11 years of service (it was planned for 4) is being used over the Atlantic to start a brand new Internet service between the USA and Europe. These new services will provide new opportunities for Eutelsat, which was created around some former ESA satellites and has since signed contracts with European companies valued at 3 billion Euros.
- Other ESA satellites that have greatly exceeded their planned operational lifetimes are Marecs and the Meteosats. The latter are operated today by Eumetsat, the organisation that was born out of an ESA development programme and is now a pillar of the international operational meteorology sector. According to analyses performed by Eumetsat itself, the financial benefits to the user community are around 15 times the corresponding investment costs.



– Finally, and with particular pride, I would like to stress the remarkable competence of the people controlling and operating our European satellites - in particular the scientific satellites - and to point once again to the incredible recovery of SOHO, thanks to which the worldwide science community will be able to continue to explore the Sun and its all-important interaction with our planet. This satellite too is already exceeding its planned lifetime.

It is fine to have nice slogans, but we feel that it is much more important to have solid results. But we cannot just take satisfaction in past achievements - we have to set challenging objectives for the future. We have to set challenging objectives for ourselves (ESA) and we also have to set challenging objectives for European industry, and we have already started to do so.

Even though the Agency's activities have remained at a practically constant level from 1996 to 1999, we have trimmed our staff by more than 20% (from more than 2100 to 1700) and we have reduced the General Budget by more than 20% (from 440 billion Euros in 1996 to 350 million in 1999). In addition, the Science Directorate has been able to accommodate a replacement Cluster mission within the existing budgetary framework. Against this 20% improvement, the general productivity increase in Europe over the same period has been around 2% per year. Even more significantly, the internal costs of the Agency account for just 15% of its total budget and we have made the commitment to reduce programme

overruns from 15% (the 1996 figure) to zero, and this has been the status quo since 1997. This is the most challenging objective for ESA and the European space industry because we have to strive to maintain it without detracting from the quality and performance of our programmes.

In addition to what has been achieved already, we have agreed to further reduce the internal costs of the Agency over the next two years to arrive at a final figure of 335 million Euros, without affecting the research activities. Depending on your decisions at this Ministerial Council, other actions are also planned. In fact, most of the programmes we are proposing for your attention require a different type of interaction with industry. Most of them call for risk-sharing with industry, and we intend to pursue this approach wherever the market allows. We intend to make extensive use of industry's expertise, assigning it more responsibility for the definition and operation of programmes, in particular in the application sectors (telecommunications, navigation, Earth observation), but also for the exploitation of the Space Station. This trend, together with the profound changes underway in industry itself, will require a reshaping of ESA. This reshaping must take into account the competences of ESA's partners: the European Union and the national space agencies.

The relationship between ESA and the European Union has been growing in recent years. This growth was marked last year at the political level when the two Councils passed the same

Resolution calling for synergy and complementarity between their respective organisations. This relationship will bear fruit today with the decision on Galileosat.

We will propose modifications in due course to the existing organisation of ESA, which whilst respecting the rules laid down in the Convention will give the Agency a more streamlined structure, able at the same time to interface with the new large companies and to maintain access to the competence and technologies available from Europe's network of small and medium-sized enterprises. Competition is becoming an increasingly distinctive feature of the space sector, and ESA has to use it more extensively, both directly and indirectly, maintaining fairness and transparency.

We understand that all of these themes - competition, transparency and efficiency - require a lot of effort, clear objectives and motivated people. We are working on all aspects of our personnel policy - career paths, salaries and technical competence - so that we may continue, as in the past, to count on a motivated and efficient staff able to contribute to the evolution of the entire space sector in Europe.

We are sure that you, the Ministers, will set us clear and challenging objectives for the future of the Agency. We commit ourselves to reshaping the Agency in accordance with such objectives, and we are counting on the support of all of our Member States.

Antonio Rodotà



# Council in Session



Opening by Mr Yvan Ylieff (left), host for the meeting



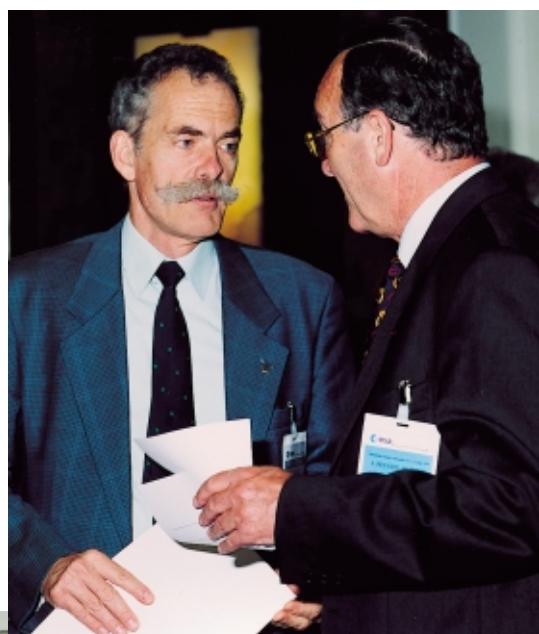
The ESA Executive and Ministerial Chairman Lord David Sainsbury (right, seated centre)





Behind the scenes

# On the Scenes



## Ministers Shape the Future of European Space Activities

Ministers of the Member States of the European Space Agency (ESA) today set challenging objectives for the future of European space activities and approved major new programmes to achieve them.

Meeting in Brussels on 11 and 12 May, the 14 member countries of ESA, together with Canada, which has a co-operation agreement with the Agency, approved investments in new space-related development programmes. Newly elected ESA Ministerial Council Chairman Lord Sainsbury, the UK Space Minister, told waiting international journalists:

*"The ESA Member States have given a great boost to the whole European space community. The new investments agreed will underpin the development of new jobs in multi-billion Euro, knowledge-based industries in the next decade".*

Highlighting the adoption of the first phase in a long-term programme of environmental science, he continued:

*"The agreement to embark on the Living Planet Programme is the first step towards providing an assured long-term programme of research which looks at the Earth and its environment from space. We are putting Earth Sciences on a more equal footing with ESA's traditional strengths in scientific research".*

Other programmes to receive approval from the Ministers included further enhancements of Europe's highly successful launcher industry, new developments in satellite navigation, satellite communications, particularly multimedia systems, and further preparations for providing Europe's contribution to the International Space Station in its early years of operation. The Ministers also agreed the budgets for the ESA Science Programme allocating 1460.8 MEuro for the period 1999-2002.

The new programmes were endorsed against a background of agreement among the Ministers

on four broad objectives for the Agency:

- achieving and maintaining the highest quality science
- developing technologies for world-competitive space industries throughout the Member States
- developing an integrated network of specialised technical centres belonging to ESA and national organisations, and
- achieving and maintaining world-class standards in the management of the Agency and its programmes.

The Ministers emphasised the need to adopt new ways of managing programmes, transferring greater responsibility to industry and engaging in a range of partnerships. This approach was demonstrated most clearly in the decision to proceed with a full programme definition for the Galileo global navigation satellite system. This will be undertaken initially in partnership with the European Union, which is expected to decide on the programme in June, but the Ministers have instructed the Director General to bring in user and other commercial interests early in the development phase.

Closer co-operation between ESA and the EU in developing a unified European space strategy was evidenced by the presence during the meeting of the European Commissioners for Industry, Research and Transport. Mr Kinnock, the Transport Commissioner, welcomed the commitment to the Galileo Programme and said:

*"I am very pleased by the enthusiasm which the space and research ministers of Europe have shown for the Galileo concept. The space interests of the EU and ESA are largely complementary and we are developing highly effective ways of working closely with each other. Navigation in land, sea and air transport is an excellent example of that – and the potential benefits for users and producers in Europe are massive. I am sure that there will be more examples in other areas of development in the coming year".*

With a keen eye on Europe's future space policy, the Ministers welcomed the Report and Action Plan of the Long-term Space Policy Committee (LSPC): "Investing in Space: The Challenge for Europe". This report identifies three major challenges that Europe will have to face as it enters the new millennium – strategic independence, planetary management and expansion beyond present horizons. It also includes an Action Plan of 20 proposed initiatives as a first response for Europe to these three challenges in order to secure a leading position in the face of fierce international competition.

The Agency's Director General, Antonio Rodotà, was happy with the outcome of the meeting, noting that:

*"The decisions taken here in Brussels will set the direction for the Agency for the next five years and beyond. We have made considerable changes in our working methods in the past four years, since the Ministerial Council in Toulouse in 1995. We have set in train a system of continuous improvement, and Ministers have rewarded us with a resounding vote of confidence. Most importantly, they have shown their determination to maintain a world-class European space industry in selected strategic sectors, and to continue their support for Europe's renowned scientific community. There will be many people in companies both large and small, throughout Europe and in Canada, who will respond positively to this exciting vision of Europe's future in space".* 



The Press Conference on 12 May



# Ministers &



# Delegations

