

**RESOLUTION ON DIRECTIONS FOR THE AGENCY'S EVOLUTION  
AND POLICY: "SPACE SERVING EUROPEAN CITIZENS"**

(adopted on 15 November 2001)

Council, meeting at ministerial level,

RECALLING the purpose of the Agency as outlined in Article II of the Convention,

HAVING REGARD to the Resolution on a European strategy for space (ESA/C-M/CXLVIII/Res.1 (Final)), adopted at ministerial level in Brussels on 16 November 2000,

HAVING REGARD to the Resolution on "Shaping the future of Europe in space" (ESA/C-M/CXLI/Res. 1 (Final)) and the Resolution on the Agency's evolution and programmes (ESA/C-M/CXLI/Res. 2 (Final)), adopted at ministerial level in Brussels on 11 and 12 May 1999 respectively,

HAVING REGARD to the Director General's proposal "Space serving European citizens" (ESA/C-M(2001)2),

RECOGNISING the outstanding achievements of the Agency in the fields in which it pursues its activities,

## **CHAPTER I**

### **THE SPACE SECTOR AS A STRATEGIC ASSET FOR EUROPE**

1. CALLS ATTENTION to the importance for society and markets in Europe of the role played by space activities through their political, economic, scientific, environmental and societal dimensions, and accordingly STRESSES the need for Europe to exploit more effectively the potential of space systems and applications, which are being used increasingly as strategic means, so that it can better fulfil the aim of putting space at the service of European citizens.
2. RECOGNISES the importance of a sustained public commitment to safeguarding Europe's prominence in the space sector, including unsurpassed research in space science, mastery of critical technologies and assured access to space systems, and AGREES that the European space identity needs to be deepened:
  - (a) through the concerted efforts of all space players, with the aims of increasing efficiency and cut unnecessary duplication;
  - (b) by combining the capabilities and capacities of the public space sector in Europe, in particular fostering the cooperation between the Agency and the European Union, with a view to remaining a strong partner of European industry.
3. WELCOMES the Director General's proposal referred to in the preamble, which sets out a strategic framework for the Agency's activities, planning and programmes over the coming years.

4. AGREES that steps shall be taken by the Agency to ensure that space matters are addressed at the highest political level in Europe, in order to strengthen the development and implementation of space activities in and for Europe.
5. ACKNOWLEDGES the need for a broader view of the Agency's role, so that it becomes the instrument not only of space projects carried out on behalf of its Member States but also of the space components of projects of general European interest, and hence the need for an injection of new skills, a reinforcement of technical facilities, an adapted set of legal and financial instruments and an integrated approach for international cooperation.
6. CALLS for the Agency's managerial capability and technical capability to be strengthened, in the latter case consisting of comprehensive technical expertise covering the required space disciplines, together with a corresponding infrastructure of ground-based facilities for testing and providing independent technical assessment, troubleshooting and mission operations
7. EMPHASISES the need to heighten European citizens' awareness of space activities and their benefits in order to foster an attractive image of space in public opinion, by means including the strengthening of the Agency's communication activities, and SUPPORTS the objective to promote and disseminate knowledge of space science and technology in order to foster career paths for the younger generation through the Agency education and outreach policy.
8. RECOGNISES the compelling case for greater diversity in the Agency's workforce, SUPPORTS the measures being taken by the Director General to ensure equal opportunity for men and women, at levels up to senior management, and INVITES the Director General to take further action to encourage in particular the European space sector to follow suit.

**CHAPTER II**  
**STRENGTHENING OF SPACE ACTIVITIES IN EUROPE**  
**WITH ALL PLAYERS**

**A. Steps to combine capacities and capabilities in the European public space sector**

1. DECIDES, as a necessary step towards a comprehensive European space programme, that preparations will be made, with the Agency taking the initiative, for the establishment of a European Space Long-Term Plan (ESLTP), which will compile and summarise the existing programmatic planning of the Agency, the European Union, national agencies and other public bodies conducting space activities in Europe and include provisions for its running and updating by the interested parties.
2. URGES the Director General to elaborate a detailed report on the current and foreseen activities of each ESA establishment and facility, on which to develop a proposal for submission to Council for decision by October 2002.
3. AGREES that further progress is to be made, on the basis of the action plan submitted by the Director General, on the initiative launched in May 1999 to establish a network of technical centres in Europe, including through the setting up of additional pilot projects; NOTES that certain proposals for new Agency programmes and activities contain references to this initiative and INVITES the Director General, taking into account the decision following the report mentioned in section 2 above, to hold discussions with all interested parties for formulating, over the period 2002-2003, new principles and rules to increase the synergy and integration of the establishments, facilities and centres, involving Council and its delegate bodies as appropriate in this exercise.

**B. Relationship between the Agency and the European Union**

1. EMPHASISES that a closer cooperation of the European Space Agency with the European Union allows the integration of space activities in a wider political, economic, scientific, environmental and social frame and put space related activities more directly at the service of European citizens; and RECOGNISES that such a cooperation represents an essential opportunity to bring space related activities to the attention of the highest political level in Europe, substantiating the current perception of space as a critical tool in the context of major Union policies, such as transport, environment, information society and security.
2. In this context, EXPRESSES its appreciation for the work carried out by the Joint Task Force established pursuant to the Resolution ESA/C-M/CXLVIII/Res. 1 (Final) of 16 November 2000, WELCOMES the Report of the Joint ESA Executive/European Commission Task Force (ESA/C-M(2001)15), and AGREES that the Joint Task Force, supported by the Joint Space Strategy Advisory Group (JSSAG) as appropriate, is to continue its activities in 2002 leading to the setting up of the arrangements, as referred to in Section 3(a) below.
3. INVITES the Director General to:
  - (a) initiate discussions with the European Union for the development of a European Space Policy as a continuation of the European Strategy for Space endorsed at ministerial level on 16 November 2000, and for the setting up of appropriate instruments, within a framework agreement, giving inter alia guidance for the relationship between the two organizations when the Agency implements European Union projects related to space and present this draft agreement to Council by the end of 2002;

- (b) present to Council, during 2002, an assessment of what would be entailed by an institutional relationship linking the Agency and the European Union;
- (c) prepare for an informal meeting of the Council of the European Union and of the Council of the European Space Agency at ministerial level, to discuss, principally, issues related to the development of the above-mentioned European Space Policy; and
- (d) arrange for the discussion at Council of the contents and recommendations of the Joint Task Force report with a view to elaborating an action plan with the European Union.

### **CHAPTER III**

#### **INTERNATIONAL RELATIONS**

1. NOTES Greece's interest in becoming a Member State of the Agency and RECALLS the steps taken by the Agency to intensify cooperation with Central and Eastern European States, in particular the framework developed for associating the European Cooperating States (ECSs) with Agency activities.
2. NOTES with appreciation the renewal as from 1 January 2000 of the Cooperation Agreement with Canada and looks forward to increased benefits for both parties from this long-standing cooperation and other significant space ventures, such as the partnership in the International Space Station programme.

3. ACKNOWLEDGES the action pursued in recent years by the Agency to intensify cooperation with the United States in various fields of space activity, INVITES the Director General to further develop and enhance that cooperation, and RECOGNISES the need for better coordination between the Agency and national organisations of Member States pursuing cooperative projects with US counterparts in order to enhance their European distinctiveness and overall value, while avoiding duplication wherever possible.
4. WELCOMES the enhanced cooperation with Japan, in particular in the framework of the International Space Station partnership, Earth observation activities and the science programme.
5. CONSIDERS that cooperation in the peaceful uses of outer space is an important element in the building of a strategic partnership between Europe and the Russian Federation, and INVITES the Director General to further develop the existing cooperation in the areas which will be of benefit to Europe.
6. ENCOURAGES the Director General to promote European space technology and applications through cooperative activities with emerging spacefaring nations, in particular in the Asia-Pacific Region and in Latin America, as well as with international organisations.
7. INVITES the Director General to prepare an action plan to implement recommendations formulated at UNISPACE III and, in addition, to demonstrate the capabilities of European space applications, in particular as they relate to the needs of developing countries.

## **CHAPTER IV**

### **SPACE TECHNOLOGY**

1. REAFFIRMS the need for a strong technology base as the key to the worldwide competitiveness of European industry and the success of future space missions.
2. REAFFIRMS the central role of the Agency in the coordination and harmonisation of European strategy and policy for space technology and WELCOMES the good progress demonstrated in pilot cases.
3. INVITES the Director General and Member States, together with the other players in the space sector to:
  - (a) pursue the programmatic coordination and harmonisation of technology programmes in Europe and prepare the European Space Technology Master Plan as a further step to the recently-developed ESA Technology Master Plan;
  - (b) define roadmaps and harmonised implementation schemes for the development of critical technologies, involving industrial funding as appropriate;and
  - (c) define appropriate measures to ensure consistency between the European Space Technology Master Plan and ESA's industrial policy.
4. INVITES the Director General to put special emphasis on fostering prospective research and technology innovation so as to enable and facilitate the acquisition by Europe of strong positions in markets for new products, services and applications and to improve methodologies and processes.



5. UNDERLINES the importance of technology transfer and spin-off programme in view of its demonstrated achievements and growing economic importance.

## **CHAPTER V**

### **INDUSTRIAL POLICY**

1. NOTING the Director General's report on industrial policy and the way forward (ESA/C-M(2001)21), WELCOMES the results of the review conducted on implementation of the principles of industrial policy during the transition period extending from 1997 to mid-2001.
2. RECALLING the priority of supporting the worldwide competitiveness of European industry and fostering a balanced European space industry:
  - 2.1 STRESSES the importance of space programmes aimed at the development by industry of operational services based on core technology and REAFFIRMS the Agency's role in supporting industry-driven research and development, and in developing opportunities which industry can commercialise and turn into the basis of operational services, and for which private funding can be mobilised in the framework of public-private partnerships in order to create synergies between public and private services and needs.
  - 2.2 RECALLS the importance of monitoring trends in industry, STRESSES that the Agency's role in supporting all categories of firms, i.e. large system integrators, suppliers, small system integrators, downstream added-value industry, and operators, in a balanced way is essential, APPRECIATES the corresponding measures taken in all technology programmes and INVITES the Director General to conduct a comprehensive review of the results of implementation of these measures

in good time to allow proposals on the way forward to be put to Council by the end of 2003.

- 2.3 CONFIRMS the important role played by small and medium-sized enterprises (SMEs) in creating a dynamic of growth and employment in Europe in all areas, and in particular in developing downstream services, products and technology derived from European space programmes, INVITES the Director General to reinforce the action taken by the Agency in this respect, and STRESSES the need to exploit the synergies with the European Union and national agencies.
3. RECALLING the priority of enhancing the cost-effectiveness of the Agency's programmes and activities, WELCOMES the move towards a more competitive and open system of procurement applied by the Agency, ENDORSES the principles for "enhancing effectiveness of the Agency's programmes and ensuring fairness in the access to Agency's activities for all firms", as stated in the Director General's proposal referred to in the preamble, and INVITES the Director General to implement these principles while not compromising cost efficiency.
4. RECALLING the priority of ensuring equitable participation by each Member State, commensurate with its investments in the Agency's programmes and activities, AGREES that the lower limit for the cumulative overall return coefficient of each Member State referred to in Article IV.6 of Annex V to the Convention, is 0.90 for the period 2000-2004.
5. CONFIRMS that it is the Director General's mandate to ensure coherence in the Agency's industrial policy across all its programmes and activities and to elaborate a suitable approach for those technology programmes which are dedicated to the support of worldwide competitiveness of European industry, and UNDERLINES the Industrial Policy Committee's role, within its delegated

mandate to deal with implementation and monitoring of the Agency's industrial policy, in reviewing, at regular intervals, the progress achieved.

## **CHAPTER VI**

### **EVOLUTION OF THE EUROPEAN LAUNCHER SECTOR**

#### **A. Towards a restructuring of the European launcher sector**

1. RECALLS the European strategy for independent and affordable access to space based on competitiveness of Europe's launchers and launch base, and STRESSES that efficient implementation of that strategy requires an appropriate balance between the respective roles and responsibilities of the public and industrial sectors, and thus between their respective investments within a strong and lasting partnership between the two sectors.
2. AGREES that restructuring of the launcher sector in Europe is needed for both development and production activities, involving the public and industrial sectors as well as the operator, Arianespace, in order to further enhance the European launcher sector's competitiveness and take into account the restructuring of industry as well as the future production of launchers developed by the Agency.
3. ENDORSES the following objectives for the restructuring exercise: (i) better assessment and control of government-funded development costs; (ii) cost reductions in the development and production phases combined with increased transparency of industrial activities; (iii) close matching between requirements defined by the Agency on the basis of market assessments made by Arianespace and the definition of new development activities submitted by industry; (iv) firmer European solidarity built on an equitable distribution of roles and benefits for Member States and their respective industries commensurate to their support

and investment and (v) a fair balance of interest between system integrators and suppliers.

4. AGREES that, without prejudging the forthcoming decisions to be taken pursuant to paragraph 5 below, the implementation of the Ariane 5 Plus programme will be adapted for those activities of the programme still to be committed, in order to meet cost objectives within the financial envelope set by the corresponding Declaration by:

- (a) placing industrial activities through two prime contractors, one for the launcher system and the other for propulsion, on the understanding that this will not change the activities already allocated to subcontractors and that the new subcontractor selections will be in line with the code of best practices in force for the Agency programmes;

- (b) submitting the industrial procurement plan and contract proposals for approval by the IPC before industrial contracts can be signed by CNES, thereby ensuring implementation of the principles referred to in subparagraph (a) above in full visibility;

and NOTES that the Ariane 5 Plus Additional Declaration is being amended accordingly.

5. INVITES the Director General to:

- (a) engage urgent consultations with national centres, industry, Arianespace as well as with Member States through the Agency's delegate bodies concerned, for the purpose of developing a long-term perspective of the European launcher sector, substantiating a proposal for a detailed organisation and associated action plan, including the assessment of the potential consequences of the restructuring exercise on the legal framework

governing Ariane production, to be submitted, by mid-2002, to Council for decisions on matters under its responsibility;

- (b) apply the objectives defined in paragraph 3 above and the guidelines defined in paragraph 6 below in preparing proposals for new programmes to be started from mid-2002 onwards;
- (c) propose to States participating in ongoing programmes any adjustments derived from the above decisions and/or from the restructuring of industry, able to enhance the implementation of these programmes; and
- (d) report on implementation of the above action plan at the next Council meeting at ministerial level, including the cost reduction objectives' achievements.

6. STRESSES that the following guidelines should be used by the Director General when preparing the proposal to Council referred to in paragraph 5 (a) above:

- (a) the progressive taking over by industry of prime contractor responsibilities, also taking into account the ongoing consolidation of major space companies in Europe, in order to streamline the organisation of development and production, while maintaining the participation of subcontractors in future development programmes and their corresponding responsibilities in the manufacture of operational launchers resulting from these programmes;
- (b) the use of existing capabilities within the Agency, CNES, DLR, ASI and other national centers in order to consolidate public sector competence for independently assessing the proposals from industry; and
- (c) the strengthening of the Agency's role in assessing new programmes proposed by industry and the associated business plan, in programme management and in control of the efficient use of public funding by

reinforcement of Agency control, by using the technical competencies of the Evry centre and other European centres and by application of the Agency's rules and procedures for contracts placing (i.e.: Tender Evaluation Board, IPC);

- (d) the benefit of opening the CSG to other launchers, preparing a plan of action, on the basis of the Evaluation Report of the Ariane Launcher Programme Board on the exploitation of Soyuz from the CSG (ESA/C-M(2001)25), for finalising with the interested partners all elements necessary, including draft legal instruments, for a decision to be taken by Council concerning the opening of the CSG, with particular reference to the Soyuz launcher.

- 7. INVITES industry to pursue its restructuring as a contribution to the above objectives and guidelines, within a calendar consistent with the two target dates referred to in sub-paragraphs 5 (a) and (d) above.
- 8. RECALLS the commitments given by Arianespace and its shareholders to meet targets for significant cost reductions on Ariane 5 manufacturing and launch operations in connection with the Declaration on the Infrastructure Programme as amended for the period 2002-2004.

**B. Future Launchers Preparatory Programme (FLPP)**

- 1. UNDERLINES the need for preparations to be made at European level for:
  - (a) future development of launchers to be decided in the year 2004, which will include: (i) the development of experimental vehicles for future Reusable Launch Vehicles (RLV's), and (ii) the development of evolutions of the Ariane 5 Plus and Vega launchers; and

- (b) the definition and selection of the next generation of launchers to secure Europe's independent and competitive access to space beyond this decade, a decision on the development of which is expected towards the year 2007.
2. CONSIDERS that these preparations should include the development, experimentation and demonstration, on-ground and in-flight, of technologies necessary for the evolution of the present systems and for the next generation of space transportation systems that may be required for the long term.
  3. ACCEPTS that, in order to implement these preparations, the FLPP will be carried out as an optional programme within the Agency framework in accordance with the provisions of the Convention and the Agency's rules and procedures, on the basis of the essential elements of the programme proposal (ESA/PB-ARIANE(2001)112) which will be finalised by spring 2002, taking into account the discussions referred to in paragraph 5 below and taking inputs from the ANGEL, ASTRA, FAST2 and PRORA initiatives.
  4. NOTES that this programme will be organised in two periods, the first lasting three years from mid-2002, it being understood that if the Participating States or other interested Member States decide to participate in the continuation of the FLPP, the present Resolution will constitute the legal basis for such continuation in the framework of the Agency, and NOTES that development of experimental vehicles for future space transportation systems will be implemented under the FLPP, particularly during the second period starting in 2005.
  5. INVITES the Member States interested to draw up a Declaration setting out their undertakings in respect of the content of the programme, which will be forwarded to Council along with the draft implementing rules containing specific provisions on the management and execution of the programme. This will allow scope for the programme Declaration, planned to be subscribed by mid-2002, to take into account the outcome of the discussions concerning:

- (a) the FLPP management scheme during the first period, consistent with the restructuring of the launcher sector as defined in section A above;
  - (b) the organisation of a European approach to technologies, test-beds and experimental vehicles, including national initiatives;
  - (c) the inclusion of activities preparing for the developments related to the evolution of expendable launchers (Ariane 5 and Vega) while maximising synergies between the reusable element and the expendable element of the programme; and
  - (d) the perspectives of international cooperation in this field.
6. ENTRUSTS the Ariane Launcher Programme Board with monitoring execution of the programme and taking the requisite measures, in particular the voting of annual budgets.
7. NOTING the intention of the States participating in the Future Launchers Technologies Programme (FLTP), pursuant to ESA/PB-ARIANE/CLXXVI/Dec. 1, rev.3 (Final), to discontinue that programme, INVITES them to allocate their unused FLTP contributions to the preparations referred to in paragraph 1 above.
8. INVITES the Member States interested in making an urgent start on technological activities related to the FLPP to do so under the Agency's General Support Technology Programme (GSTP), as a transitional measure in the year 2002.