



COMMISSION OF THE EUROPEAN COMMUNITIES

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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT AND THE COUNCIL**

**Moving to the deployment and operational phases of the European satellite
radionavigation programme.**

Introduction

Having taken note of the Commission communication of 18 February 2004,¹ on 9 March 2004 the Council adopted conclusions inviting the Commission to present, by the end of October 2004, a communication on the basis of which it will be able to take, by the end of the year, the necessary decisions on the start of the deployment and operational phases, including decisions on the maximum EC financial contributions for these phases, and the definition of the services. Since 2002, the programme has been in its development phase, which will be followed by the deployment phase (2006-2007) and the operational phase (from 2008).

Prior to launching the deployment and operational phases, it was necessary to settle four matters:

- confirmation that there will be a significant contribution from the private sector towards the funding of these phases;
- the definition of the services offered;
- the establishment of the structures for the management of the system;
- the conclusion of an agreement with the United States on the interoperability of the American and European systems.

The last two matters are now settled. Council Regulation (EC) No 1321/2004 on the structures for the management of the European satellite radionavigation programmes and Joint Action 2004/552/CFSP on aspects of the operation of the European satellite radionavigation system affecting the security of the European Union, both dated 12 July 2004,² established the structures for the management of the system. In addition, the total interoperability of the European and American systems is expressly provided for in the agreement signed with the United States on 26 June 2004.

Where private funding is concerned, the Galileo Joint Undertaking, which has been operational since summer 2003, has been given the task of completing the procedure for selecting a concession holder. The first phase, shortlisting, was completed in February 2004. At the end of August 2004 two of the three short-listed consortiums submitted their detailed bids in the context of the second phase of the procedure. The Joint Undertaking assessed these bids in September 2004 and produced a report. In accordance with its terms of reference, the Joint Undertaking will select one of the candidates for the concession, subject to the approval of its Administrative Board.

The purpose of the Joint Undertaking's report, accompanied by this communication, is to secure the necessary political directives on the public funding of the next phases of the programme and the public service tasks, in particular the definition of the services. On this basis, the Joint Undertaking will be able to embark upon the last concession phase, the negotiation of the concession contract to be signed in the course of 2005. This will be done in close liaison with the Supervisory Authority which, as licensing authority, will sign the

1 COM(2004) 112 final.

2 OJ L 246, 20.7.2004, p. 1 and p. 30.

contract and ensure its implementation in accordance with Article 2(1) of Regulation (EC) No 1321/2004.

1. THE FUNDING OF THE DEPLOYMENT AND OPERATIONAL PHASES

The significant development of the satellite radionavigation markets prompted the European institutions to opt for a public-private partnership, in the form of a concession, for the deployment and operational phases of the GALILEO programme. While the private sector is willing to invest massively in the project, given the commercial prospects, a Community financial contribution is nevertheless necessary in order to ensure the programme's financial stability.

1.1. Strong commercial prospects

The outstanding prospects for the development of satellite radionavigation markets have been stressed by various studies³ ordered by the Commission since 1999, of which the Council has been informed. Developments in recent years confirm the expansion of the markets for satellite radionavigation products and services. Even the most optimistic estimates have been exceeded.

The world market for satellite radionavigation products and services doubled from EUR 10 billion in 2002 to EUR 20 billion in 2003. It will amount to around EUR 300 billion by 2020, with some 3 billion receivers in operation. These receivers will combine all the services offered by the GALILEO, EGNOS and GPS systems.

Innovative applications are being marketed every day. The price of receivers is constantly falling. They are now available at less than EUR 150. As with mobile phones a few years ago, the fall in prices will result in a rapid spread of radionavigation services in all sectors, making them as commonplace as consumer electronic equipment such as watches, cameras, mobile phones, etc. Satellite radionavigation is penetrating all segments of society, giving the GALILEO programme a citizen's dimension.

Ever since the inception of the GALILEO project, the Council wanted substantial private-sector participation in the programme. In its resolution of 19 July 1999, it invited the Commission "to create timely and realistic conditions for securing finance largely from private sources within the framework of a public-private partnership".⁴ This position was subsequently constantly reasserted. In conclusions adopted on 26 March 2002, the Council agreed, for the funding of the deployment phase "to work towards a cost-share of at most one-third for the Community budget and at least two-thirds for the private sector". In addition, in these conclusions and the conclusions which it adopted on 9 March 2004, the Council expressly envisaged Community funding for the operational phase.

3 In particular, the GALA, Geminus, PricewaterhouseCoopers and Galilei studies.

4 OJ C 221, 3.8.1999, p. 1.

1.2. Sources of private-sector funding

According to the interim report drawn up by the Galileo Joint Undertaking, the bid made by the shortlisted consortiums confirmed the assumptions made about the funding of the deployment and operational phases, as proposed by the Council. Each of the consortiums undertakes to fund at least two-thirds of the cost of the deployment phase, estimated at EUR 2.1 billion, and requests the payment of a balancing subsidy during the first years after the system is put into service.

In its abovementioned communication of 18 February 2004, the Commission indicated several potential sources of private-sector funding for the deployment and operational phases.

Income from the sale of services accounts for a substantial proportion of the financing plans presented by the shortlisted consortiums. Going directly to the concession holder, this income will enable it to obtain a return on the capital invested and repay the loans contracted. It should be noted that each of the consortiums stresses the importance of the income expected from sales relating to the public regulated service (PRS).

Income from intellectual property rights is also a major aspect of the financing plans presented by the shortlisted consortiums. As with the income relating to the sale of services, it will go directly to the concession holder to which the Supervisory Authority will assign (in the context of the concession contract) licences for the exploitation of intellectual property rights relating to the system's components and applications. The Galileo Joint Undertaking, together with the Commission and the European Space Agency, has worked out an overall approach aimed at ensuring legal protection for the key elements of the system, in particular with regard to the treatment of signals. This approach will make it possible to cover all users, whatever service is used. It is advocated by the applicants for the concession which regard it as a significant source of income, making it unnecessary to impose a charge on receivers, as was envisaged in the abovementioned communication of 18 February 2004.

Lastly, the financing plans presented by the shortlisted consortiums also provide for a substantial commitment in terms of equity funding backed up by solid bank support. The European Investment Bank, which has close contacts with the various applicants for the concession, will play a major role in the financial arrangements by providing very long-term loans with an appropriate grace period.

1.3. The Community funding required

The European satellite radionavigation system represents a major public infrastructure offering numerous advantages for the European Union. It will make it possible to get away from dependence on a monopoly third-part system for crucial areas of applications which are growing in number each day. It will ensure control over the technology required and radionavigation and timing functions which are vital to the economy. It is a civilian system designed for civilian users, and will meet needs which cannot be satisfied by the existing system. It fits in with European space policy as described in the White Paper presented by the Commission on 11 November 2003.⁵ All this justifies the involvement of the public authorities in funding the programme's deployment and operational phases.

5 COM(2003) 673.

Given the scale and quality of the project wanted by the European Community, and taking into account the commercial income that the system is likely to generate, public funding will be needed to supplement the private funding for these two phases.

The cost of the deployment phase is estimated at EUR 2.1 billion. Since each of the shortlisted consortiums has undertaken to bear two-thirds of this cost, i.e. EUR 1.4 billion, EUR 700 million will be needed from the Community budget in order to fund the phase.

The operational phase will be funded by the private sector, but given the constraints arising from the public service obligations imposed on the operation of the major public infrastructure that the GALILEO system represents, and the time needed for the private sector to develop fully the satellite radionavigation market and the marketing of its services, it will be necessary to provide some exceptional public funding during the first years of the operational phase.

In order to ensure funding from the Community budget, on 14 July 2004 the Commission submitted a proposal for a European Parliament and Council regulation on the implementation of the deployment and commercial operating phases of the European satellite radionavigation programme.⁶ This proposal bases the GALILEO programme on a specific legal instrument which is consistent with the future European space programme and is more appropriate for meeting its needs while reflecting the concern for sound financial management. It provides for a financial contribution from the European Community of EUR 1 billion for the period from 1 January 2007 to 31 December 2013. EUR 500 million are assigned to the funding of the deployment phase, which should also receive EUR 200 million under the current financial perspective for 2006, and EUR 500 million are earmarked for the funding of the first years of the operational phase. The latter figure is indicative and will be adjusted, where appropriate, according to the outcome of negotiations with the applicants for the concession.

The management and monitoring of the use of the Community contribution to the GALILEO programme will be the responsibility of the European GNSS Supervisory Authority, in accordance with the abovementioned Council Regulation No 1321/2004. The Supervisory Authority is scheduled to be set up in the first half of 2005. It is not out of the question that the European Space Agency may, if necessary, contribute to the funding of the programme's deployment and operational phases by means of a contribution to the Supervisory Authority.

It should be stressed that the proportion of public funding may be reduced depending on the commercial income generated for the concession holder by operating the system. A clause in the concession contract will explicitly cover this.

For its part, the Commission will endeavour to promote the use of satellite radionavigation in its initiatives in various areas such as emergency calls, maritime safety, fishing and agriculture in conjunction with the GMES (Global Monitoring for Environment and Security) system, the interoperability of railway systems (ERTMS), justice and home affairs, etc.

6 COM (2004) 477 final.

1.4. Income from third countries

The upsurge in international cooperation is continuing. Several third countries are particularly keen to participate in the GALILEO programme, including financially. Cooperation agreements were signed with China on 30 October 2003 and with Israel on 13 July 2004. In addition to the Russian Federation, India and Ukraine, with which discussions with a view to an agreement are well under way, promising contacts have been established with South Korea, Australia, Mexico and Brazil. In addition, Switzerland and Norway, which are members of the European Space Agency, and Canada, an associate member, are examining the possibility of financial participation in the subsequent phases of the programme. A significant contribution may be expected from the various third countries in question.

The third countries associated with the GALILEO programme represent a good market development opportunity. Each of these countries has companies with significant technical and commercial capacities in the areas of space and satellite radionavigation, which can provide a boost for European industry. In each of these countries, all the operators and users stress the need to develop a civilian satellite radionavigation system specifically designed to meet their needs through five different services with the functions needed for the large-scale development of this new technology: integrity, guarantee of service and linkage with telecommunications. They therefore appreciate the different nature of the GALILEO system compared with the American GPS system and see the importance of bilateral agreements which cover all the areas of cooperation and make it possible to take part in the future of the various aspects of such a promising technology.

As it is open to very wide cooperation with third countries, the GALILEO programme will give the latter the opportunity to participate in the construction, development and management of a strategic infrastructure. In this respect, it will contribute significantly to the external dimension of European Community policy. The diversity and extent of the methods of participation envisaged, concerning the concession, research programme, contracts awarded by the European Space Agency, regulatory aspects, participation in the Joint Undertaking and association with the future Supervisory Authority, are certainly beneficial for international cooperation.

Cooperation with third countries will also make it possible to ensure the support of those countries within the international bodies responsible for frequency allocation and standardisation. It will also guarantee that the services offered by the system will be marketed without any barrier within the countries concerned.

2. REQUIREMENTS RELATING TO THE SERVICES TO BE OFFERED

The GALILEO system must offer various services with specific features and guarantee a high degree of security.

2.1. The services to be offered

The services that will be offered by the GALILEO system are set out in detail in Annex 1 to the Commission communication of 24 September 2002.⁷ They are defined in the high-level definition document which was drawn up in 2002 and has constantly been updated in consultation with the various user groups. On this basis, in its conclusions of 6 December 2002, the Council indicated that the invitations to tender launched in the context of the GALILEO programme, in particular concerning the concession, would cover five services: an open service, a commercial service, a safety-of-life service, a public regulated service (PRS), and assistance for the search and rescue service of the COSPAS-SARSAT system and other relevant systems.

The bids on the basis of which discussions are in progress with the shortlisted consortiums are in accordance with the specific technical features required and each propose the five abovementioned services.

It should be stressed that the public regulated service (PRS) is one of the key aspects of the programme. It will enable the public authorities to have a secure high-performance service. Many ministries have taken part in the technical definition of this service and confirm the need to establish it. This applies in particular to the services responsible for border surveillance and inland security, which are fighting crime, smuggling, illegal immigration and terrorism, etc, and civil protection teams. However, use of the public regulated service will remain optional. Member States and their administrations will be free to use it or not. In their draft business plans that are being drawn up the shortlisted applicants for the concession confirm the existence of considerable demand for this service in many Member States and stress the scale of the income that they expect to generate from it. The cost of using the public regulated service will be borne by the users alone, but will remain reasonable out of concern for good public administration.

In addition, the costs generated by including the public regulated service in the system represent a very small percentage of the overall infrastructure costs. This service has very little impact on the definition of the main satellite parameters, namely the weight, power and volume of the equipment. The impact on the cost of the ground segment is negligible.

In addition, the research carried out over the last two years and the discussions with the United States have made it possible to determine precisely the frequency plan for the five services offered. The agreement signed with the United States on 26 June 2004 removes the final political obstacles to approval of this plan.

Lastly, where EGNOS is concerned, in its conclusions of 5 June 2003 the Council indicated that the “advantages of a possible inclusion of the management of EGNOS as part of the future concession agreement for the management of GALILEO should be evaluated together with potential GALILEO concessionaires”. Consequently, the GALILEO Joint Undertaking

⁷ COM(2002) 518 final.

included EGNOS in the discussions which it is holding with the shortlisted consortiums which have declared themselves ready to take over the management of EGNOS in the context of the GALILEO concession. This matter will be the subject of a Commission proposal on the basis of the results of the negotiations with the shortlisted applicants, the results of the discussions with the Member States' authorities responsible for the control of civil aviation, and the features of the European navigation plan under study.

2.2. Compliance with security requirements

As the Council has stressed on various occasions, the GALILEO system is a sensitive infrastructure requiring special protection measures regarding security and safety. It is necessary to guard against two potential dangers: the system must be protected against threats to its operation, whether malicious or otherwise; also, it is necessary to prevent its use for purposes contrary to the interests of the EU and its Member States.

The abovementioned Regulation (EC) No 1321/2004 and Joint Action 2004/552/CFSP of 12 July 2004 are the two texts on which the safety and security of the GALILEO system will be based during the deployment and operational phases: the Regulation sets up the Supervisory Authority which will in particular be responsible for more technical matters concerning the security and safety of the system; the Joint Action concerns threats to its integrity or its operation and measures to be taken in the event of a crisis. The System Safety and Security Committee to be set up by the Supervisory Authority, which will be composed of representatives of the Member States, will take over from the Galileo Security Board (GSB).

The Joint Undertaking has ascertained that the shortlisted consortiums offered all the necessary guarantees with regard to security and safety. The teams which will manage the system will consist of people authorised to have access to classified documents and procedures. In their bids each of the consortiums has included compliance with security measures which at present are drawn up by the Security Board and will in future be drawn up by the Supervisory Authority. They have also provided for the possibility of the Council imposing a degradation in signal quality in the event of a crisis in a region of the world.

Conclusions

In accordance with its terms of reference, the Galileo Joint Undertaking has successfully completed the procedure for selecting the future concession holder. The conditions governing the launch of the GALILEO programme have been met. In particular, the following have been confirmed:

- the strategic aspects of an infrastructure aimed at guaranteeing the independence of the EU while ensuring complementarity with the American GPS system;
- the technical definition of a system giving the EU control over satellite radionavigation technology;
- the commercial viability of the system as a result of the availability of substantial income;
- the complementarity of the five services proposed for the programme, which are designed to meet the needs of civilian users as a whole;

- the integration of EGNOS, the precursor of the European global satellite radionavigation system into the approach pursued, including the concession arrangement;
- a significant financial contribution from the private sector;
- lastly, the international dimension of the project and the growing desire of third countries to participate actively and financially in the programme.

The other conditions set by the Council for moving to the next phases of the programme, namely system deployment and operation, have also been met:

- the conclusion with the United States of an agreement on the interoperability of the American and European systems, which was signed on 26 June 2004;
- the establishment of the future structures for the management of the system, the Supervisory Authority and security arrangements, with the adoption by the Council of the two texts of 12 July 2004;

All the conditions are therefore met for the Council to confirm:

- the irrevocable transition to the programme deployment and operational phases;
- the essential features of the system, in particular as regards services;
- the commitment of the public authorities with regard to the funding of the deployment and operational phases and the monitoring of the system.

Confirmation is necessary in order:

- to enable the Joint Undertaking to complete the negotiation of the concession contract due to be signed in the course of 2005, and
- to enable private-sector stakeholders to confirm their bids and financial commitments.

The Commission will continue to inform the European Parliament and the Council at regular intervals about the progress of the programme. The Joint Undertaking's Supervisory Board will continue with the concession procedure. The results of this procedure will be presented by the Commission to the European Parliament and the Council in agreement with the Supervisory Authority which, at the beginning of 2005, will begin the essential tasks for implementing the deployment and operational phases.