

Basic information	
2001/0136(CNS) CNS - Consultation procedure Regulation	Procedure completed
GALILEO, satellite radionavigation programme: development phase, joint undertaking Repealed by 2011/0392(COD) Amended by 2006/0115(CNS) Subject 3.30.03.06 Communications by satellite	

Key players				
European Parliament	Committee responsible		Rapporteur	Appointed
	ITRE	Industry, External Trade, Research, Energy	GLANTE Norbert (PSE)	18/09/2001
	Committee for opinion		Rapporteur for opinion	Appointed
	BUDG	Budgets	TURCHI Franz (UEN)	11/07/2001
	RETT	Regional Policy, Transport and Tourism (Associated committee)	LANGENHAGEN Brigitte (PPE-DE)	11/10/2001
Council of the European Union	Council configuration		Meetings	Date
	Economic and Financial Affairs ECOFIN		2393	2001-12-04
	Competitiveness (Internal Market, Industry, Research and Space)		2426	2002-05-21
	Transport, Telecommunications and Energy		2374	2001-10-15
	Transport, Telecommunications and Energy		2420	2002-03-25
European Commission	Commission DG		Commissioner	
	Energy and Transport			

Key events			
Date	Event	Reference	Summary
		COM(2001)0336	Summary

20/06/2001	Legislative proposal published		
06/09/2001	Committee referral announced in Parliament		
15/10/2001	Debate in Council		
04/12/2001	Debate in Council		Summary
08/01/2002	Vote in committee		Summary
08/01/2002	Committee report tabled for plenary, 1st reading/single reading	A5-0005/2002	
06/02/2002	Debate in Parliament		
07/02/2002	Decision by Parliament	T5-0052/2002	Summary
21/05/2002	Act adopted by Council after consultation of Parliament		
21/05/2002	End of procedure in Parliament		
28/05/2002	Final act published in Official Journal		

Technical information	
Procedure reference	2001/0136(CNS)
Procedure type	CNS - Consultation procedure
Procedure subtype	Legislation
Legislative instrument	Regulation
Amendments and repeals	Repealed by 2011/0392(COD) Amended by 2006/0115(CNS)
Legal basis	EC Treaty (after Amsterdam) EC 172 EC Treaty (after Amsterdam) EC 171 Rules of Procedure EP 57_o
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/5/14906

Documentation gateway				
European Parliament				
Document type	Committee	Reference	Date	Summary
Committee report tabled for plenary, 1st reading/single reading		A5-0005/2002	08/01/2002	
Text adopted by Parliament, 1st reading/single reading		T5-0052/2002 OJ C 284 21.11.2002, p. 0206-0309 E	07/02/2002	Summary
European Commission				
Document type	Reference	Date	Summary	
Legislative proposal	COM(2001)0336  OJ C 270 25.09.2001, p. 0119 E	20/06/2001	Summary	

Document attached to the procedure	SEC(2001)1960 	04/12/2001	Summary
Follow-up document	COM(2002)0518 	24/09/2002	Summary
Follow-up document	COM(2004)0112 	18/02/2004	Summary
Follow-up document	COM(2006)0272 	07/06/2006	Summary
Follow-up document	COM(2007)0261 	16/05/2007	Summary
Follow-up document	SEC(2007)0624 	16/05/2007	

Other institutions and bodies

Institution/body	Document type	Reference	Date	Summary
EESC	Economic and Social Committee: opinion, report	CES1475/2001 OJ C 048 21.02.2002, p. 0042	28/11/2001	
CofR	Committee of the Regions: opinion	CDR0380/2001 OJ C 278 14.11.2002, p. 0005	15/05/2002	

Additional information

Source	Document	Date
European Commission	EUR-Lex	

Final act

Regulation 2002/0876 OJ L 138 28.05.2002, p. 0001	Summary
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GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 21/05/2002 - Final act

PURPOSE : to establish the Galileo Joint Undertaking. **COMMUNITY MEASURE :** Council Regulation 876/2002/EC. **CONTENT :** This Regulation sets up a joint undertaking responsible for managing the development phase of the GALILEO satellite navigation system. It is established for four years and based in Brussels. It will be the task of the joint undertaking to mobilise the funds assigned to that programme. The purpose of GALILEO is to set up a European system providing uniform services, including for northern latitudes, by means of satellites in medium orbit. The development phase will continue until 2005 and will be followed by the deployment phase until 2007 and the operational phase beginning in 2008. The seat of the Joint Undertaking is located in Brussels. The Joint Undertaking is set up under Article 171 of the Treaty. It is considered as an international organisation. The Joint Undertaking's main task is successfully to complete the development of the Galileo programme during its development phase by combining public and private sector funding. In addition, it should ensure the management of major demonstration projects. The Statute of the Joint Undertaking lays down its specific tasks: - to oversee the optimal integration of the European Geostationary Navigation Overlay Service (EGNOS) in the Galileo programme and the implementation of the Galileo development and validation phase and help prepare for the deployment and operational phase; - to launch, in co-operation with the European Space Agency and through contractual arrangements with private sector entities, the research and

development activities needed successfully to complete the phase of development and co-ordination of national activities in this area; and to launch a first series of satellites to finalise the technological developments that have occurred and ensure the large-scale demonstration of the capabilities and reliability of the system; -in co-operation with the Commission, the European Space Agency and the private sector, to help to mobilise the public and private sector funds needed to make proposals to the Council for the management structures for the various successive phases of the programme, on the basis of the following activities: - it will draw up a business plan covering all the phases of the Galileo programme, on the basis of data to be supplied by the Commission, concerning the services that can be offered by Galileo, the revenue that they may generate and the necessary accompanying measures, - it will negotiate, by way of a competitive tendering process with the private sector, an overall agreement for the financing of the deployment and operational phases that sets out the responsibilities, roles and risks to be shared between the public and private sectors; to supervise the carrying-out of all programmes, and to make any necessary adjustments in the light of developments occurring during the development phase. The founding members are the European Community, which subscribes EUR 520 million, and the European Space Agency, which subscribes EUR 50 million to the capital. Undertakings need to subscribe EUR 5 million within 1 year. This amount is reduced to EUR 250 000 for SMEs. ENTRY INTO FORCE : 28/05/02.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 07/02/2002 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted the report by Mr Norbert GLANTE (PES, D) with a number of non-binding amendments. On the question of Administrative Board of the Joint Undertaking, MEPs are saying that it may seek the advice of an Advisory panel of expert business developers to be established in order to offer impartial advice to prepare the ground for the Galileo Joint Undertaking. The Commission is proposing that the seat of the Galileo Joint Undertaking would be in Brussels. However, the European Parliament want to see the seat decided with reference to the taxation in the potential country of location. It also emphasises that the Joint Undertaking should not exclude the possibility of using the Galileo system for military application for peace-keeping missions. With regard to the funding of the Joint Undertaking, it shall be largely financed from the general budget of the Union and shall respect in its internal procedures the principles applicable to the European Institutions. Candidate countries shall be entitled to participate in the activities of the Joint Undertaking through the appropriate instruments foreseen in the budget. In addition, a monitoring committee shall be set up in which each Member State is represented. Relations between the monitoring committee and the Joint Undertaking shall be governed by the Statutes. Lastly, the Joint Undertaking shall publish and organise an invitation to tender in 2002-2003 for the next phases of Galileo.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 18/02/2004 - Follow-up document

The Commission has presented a progress report on the GALILEO research programme as at the beginning of 2004. The communication revolves round the following three points: - progress of the development phase; - development of international cooperation; - transition to the deployment and operating phases. As far as the programme is concerned, 2003 has been a decisive year marking, in particular, the setting-up of the Galileo Joint Undertaking (the Joint Undertaking) and the commencement of its work, the order of the first satellites, the promotion of international cooperation, the confirmation of frequencies allocated and preparations for the deployment and operating phases. Having weathered the storm associated with the difficulties linked to determining the financial scale within the European Space Agency, the development phase of the GALILEO programme is now at a very advanced stage. The Joint Undertaking has been fully operational since summer 2003. The technical studies and research work are actively going ahead, encouraged by the positive results achieved at the World Radiocommunication Conference held in June 2003. At the same time, the integration of the new Member States and candidate countries in the GALILEO programme is well under way. Since the last communication on the progress of the GALILEO programme, the advances made both in terms of the development of the system and its applications and in terms of international cooperation have been considerable. The programme is evolving as planned, and its international dimension is asserting itself more and more by the day, e.g. through the forthcoming conclusion of an Agreement with the United States. Exactly how much of the funding the private sector will declare itself ready to take on represents, in short, the only element of uncertainty remaining, even though the four offers submitted under the procedure for selecting the future concession holder actually provide for the substantial involvement of the undertakings concerned. With a view to obtaining a definite commitment from the private sector to finance two thirds of the deployment and operating phases, as recommended by the Council, it would be desirable if the latter could make an irrevocable commitment of its own in favour of the programme. The determining factors in this respect would appear to be the promotion of the system through the creation of supportive environments, as well as the adoption of a definitive political decision to go ahead with the GALILEO programme until the system enters into service in 2008. Against this background, it is essential that the legislative procedure regarding the rules on the future structures for managing the programme be achieved without delay, and that the European Parliament and the Council confirm the guidelines which they have previously issued - particularly with regard to the services which will be generated by the GALILEO system, so as to enable the European Space Agency to draw up once and for all the technical options adopted to date and to enable the Joint Undertaking to conduct negotiations aimed at selecting the system operator and the Supervisory Authority to conclude the concession contract.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 16/05/2007 - Follow-up document

The European Commission has adopted a communication on the implementation of the European GNSS programmes.

The European satellite navigation programmes Galileo and EGNOS have come to a crossroad. A political choice is required on how to proceed. The concession negotiation which should have led to the deployment and exploitation of Galileo has stalled. The delays accumulated so far and the absence of any sign of progress on the concession negotiation is a risk for the delivery of the project within the timeline and foreseen budget.

In view of the situation, and following the letter of Vice President Barrot to the Council Presidency of 14 March 2007, the Council of Transport Ministers of 22 March 2007 requested the Commission to: i) assess and report by the June Council on overall progress of the Galileo project; ii) submit as soon as possible for discussion possible solutions for securing the long-term public financial obligations; iii) assess the progress in the concession negotiations and to submit alternative scenarios, also assessed for costs, risk and affordability.

The European Parliament, in its Resolution of 24 April 2007, reiterated its support for the Galileo programme, expressed its concerns about the progress, and called on the Commission to come forward with appropriate proposals, based in part on the same points as mentioned by the Council and, in particular, for a strengthening of public governance by ensuring political responsibility and leadership of the Commission (see [RSP/2007/2548](#)).

This Communication responds to the requests of the Council and the European Parliament and is complemented by a Commission staff working document.

The Commission considers that the **current situation** is a result of the combined effects of continuous, unresolved disputes over share of industrial work, a misjudgement that market risk could be transferred to the private sector, an unresolved negotiation with respect to the transfer of design risk, the technical complexity of the programme, and insufficiently strong and clear public governance.

The Commission invites the Council and the European Parliament to take note of the failure of the current concession negotiation and to conclude that, on this basis, the current PPP negotiations should be ended.

Consequently, the Commission invites the Council and the European Parliament to:

- to reaffirm the necessity to put in place an autonomous satellite navigation system, to endorse the continuation of the Galileo programme as a strategic asset for the European Union, and to recognise its economic value;
- to recognise that the Galileo system characteristics remain fully compatible with the ambitions of the European Union for this strategic asset, namely a 30 satellites constellation offering five different services with an excellent quality of the signal in space.

Alternative scenarios: the Commission has pursued the public-private partnership (PPP) approach for the implementation of Galileo but has re-profiled it through scenarios with a more appropriate moment at which a private partner assumes programme responsibility.

The following two scenarios are retained:

- **initial operational capacity (IOC) procurement followed by a PPP:** under this scenario, the public sector finances and procures an operational system with limited performances. This core infrastructure is composed of 18 satellites with the associated ground segment. The remaining 12 satellites are procured by the private sector under the PPP concession scheme which also contains the operations and exploitation activities. The IOC will be ready by end 2011, with users having access only to early services at that time. Full deployment and service availability can be achieved by end-2013, provided that the PPP contract is signed in time. The PPP contract would cover the period 2010-2030;
- **full operational capability (FOC) procurement followed by PPP:** in this scenario the public sector finances and procures the complete operational system with full performances. This infrastructure is composed of 30 satellites with the associated ground segment. It allows the provision of all Galileo services for all targeted users and provides full confidence of design robustness to the future concession holder. The PPP contains operations and exploitation activities. The public sector is gradually able to increase the capability to provide services. In an intermediate step the infrastructure reaches a constellation of initial operational capability by end-2011 and the full deployment is achieved by the end of 2012. The PPP concession contract covers the period 2010-2030.

In this context, the Commission invites the Council and the European Parliament to confirm that it is necessary, appropriate, and in the interest of the European GNSS programmes to proceed with their implementation through an alternative scenario.

On the basis of its assessment, the Commission invites Council and European Parliament to conclude that the preferred option and **only scenario** providing a satisfactory way forward is a re-profiled, two-step PPP approach:

Step 1: start with the immediate implementation of EGNOS, through a specific concession, as a precursor to Galileo with initial service availability by early 2008, and complement the current public procurement of the initial satellites and infrastructure by deploying the first full Galileo constellation under a public procurement with a target of Full Operational Capability by end 2012.

Step 2: in parallel, negotiate and put in place a PPP for the subsequent EGNOS and Galileo exploitation phase from 2010-2030.

The Commission also invites the Council and the European Parliament to recognise that EGNOS will achieve operational capability by early 2008 and that immediate action is required to implement its services as a pre-cursor to Galileo.

As regards the **financing of the recommended scenario**, the Commission invites the European Parliament to:

- secure, as a first step, the progress of the EGNOS and Galileo projects, to advance rapidly with the adoption of the currently proposed EU Programme Regulation;
- examine the possibilities for additional financing;
- discuss and agree, on the basis of a proposal that the Commission will present by September 2007, the modalities on how to proceed in view of the financing gap, including, if necessary, a financing mechanism which will cover the entire period until 2030.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 20/06/2001 - Legislative proposal

PURPOSE: The establishment of a Joint Undertaking to give legal definition to the European satellite radionavigation system, GALILEO. CONTENT: In 1999 the European Commission presented its first proposals to the Council in which its vision for the development of a European Satellite radionavigation system, to be known as GALILEO, was outlined. In its proposal, the Commission envisioned a four phase development of GALILEO: - definition in 2000; - development by 2005; - deployment by 2007; - operation and exploitation thereafter. In order to fully complete the development phase (2001-2005), the Commission has prepared a Regulation whereby a single management structure, or Joint Undertaking, for the GALILEO programme will be established. The Statutes adopting the Joint Undertaking are annexed to the proposed Regulation. The legal basis for the Joint Undertaking is Article 171 of the Treaty establishing the European Community. The objectives of the Joint Undertaking are: - to ensure the smooth development of the programme; - the continuation of the research and development efforts; - the bringing together of public and private sector funding; - to prepare the management of the deployment and operational phases of the programme. Funding would come from the European Community, the European Space Agency and private investors.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 24/09/2002 - Follow-up document

Six months after the Council of Ministers finally launched the Galileo European Satellite Radionavigation Project, the European Commission is continuing the development of this first phase of the first major programme bringing together the EU and the European Space Agency. This communication concerns the state of progress with the programme in which it discusses the various services offered by Galileo, security questions, relations with the US and international cooperation with other third countries. In particular the following aspects will be discussed in turn: - establishment of the Joint Undertaking, - system security; - definition of services and the frequency plan, - relations with third countries. 1) Establishment of the Galileo Joint Undertaking : there have been delays in setting up the Galileo Joint Undertaking following problems within the European Space Agency in finalising the respective contributions of the participating States contained in the programme declaration relating to Galileo. If no solution is found in the short term, the matter will have to be referred to the European Union. The Joint Undertaking must be set up as quickly as possible so that the plan for the call for tenders for the development phase can be approved. When these problems have been overcome, the first meeting of the Administrative Board of the Joint Undertaking can be held to discuss issues such as the financial regulation of the Joint Undertaking, the 2002 budget of the Joint Undertaking and the appointment of the Director of the Joint Undertaking. 2) The security system : the Galileo security Board has started its work. Its tasks are as follows: - defining the technical characteristics of the system with regard to security (encryption, etc.). - assisting the Commission in its negotiations with third countries, particularly on the issue of sharing frequencies with the US. - helping to draw up the proposal for the future security structure for GALILEO operational activities. 3) Definition of the Services and the Frequency Plan : defining services and the frequency plan is vital in preparation for the next World Radiocommunications Conference in July 2003. Each of the services offered by GALILEO entails signals using one or more frequency bands with specific characteristics. GALILEO will offer several service levels, ranging from open access to various level of restricted access: - an open, free basic service mainly involving applications for the general public and services of general interest. This service is comparable to that provided by the American GPS, which is free of charge for these applications, but with improved quality and reliability. - a commercial service facilitating the development of professional applications and offering enhanced performance compared with the basic service, particularly in terms of service guarantee. - a safety of life service of a very high quality and integrity for safety-critical applications, such as aviation and shipping. - a search and rescue service that will greatly improve existing relief and rescue services. - a public regulated service (PRS), encrypted and resistant to jamming and interference, principally to meet the needs of the public authorities responsible for civil protection, national security and law enforcement which demand a high level of continuity. 4) Relations with third countries : GALILEO is a worldwide system. It is therefore intended to serve users all over the world, and its deployment will necessitate a large measure of international cooperation to make it possible to derive maximum benefit from the GALILEO programme: it should help to increase European know-how and develop the satellite radionavigation market in third countries (ground-based equipment and applications). - relations with the United States : international cooperation is based in particular on the interoperability of GALILEO with the existing American and Russian systems so as to enable each user to receive signals from different systems using the same receiver. In this context, the negotiations with the US are reaching a decisive phase and the security questions concerning the procedures for using or interrupting signals in the event of a crisis were addressed at the latest meetings with the American authorities. It should also be noted that a number of signals and frequency bands are associated with the various services offered. Considering the limited space in the frequency spectrum allocated to satellite navigation, the overlay of frequency bands used by GPS and Galileo is inevitable, particularly for secured signals. Such overlay complies with international regulations provided that there is no harmful interference to either of the two systems. However, the United States, who until now enjoyed a de facto monopoly of satellite radionavigation, are currently - for strategic reasons - opposed to overlay of one of the two PRS signals and one of the two military (or code M) GPS signals at a specific modulation in the high frequency band. - relations with other third countries : in its communication the Commission proposes guidelines for cooperation with a number of third countries. The means of association considered ranged from scientific and technical cooperation to full participation in the Joint Undertaking responsible for completing the development phase and preparing the subsequent phases of the programme. Many projects have already been launched to develop satellite radionavigation applications in the Mediterranean area, Latin America and the accession candidate countries. Activities are also being launched with China, Canada, Australia, Japan, Ukraine and India.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

This Communication from the Commission takes stock of the GALILEO Programme. In 2005, the world market in satellite navigation products and services reached EUR 60 billion. Over the last five years, the annual growth rate of this market came to 25%. By 2020, the annual worldwide turnover of these markets is estimated at EUR 300 billion, with 3 billion receivers in operation. Within the EU alone, it is expected that 150 000 jobs will be created, primarily in the high-tech sectors associated with the relevant research, applications and services.

Installations of space and ground infrastructure: the first of the experimental satellites, GIOVE A, was successfully launched on 28 December 2005. It should be possible to launch the second experimental satellite, GIOVE B, at the end of 2006. Alongside this, the industrial activities of the in-orbit validation phase, the management of which has been entrusted to the European Space Agency, began in December 2004. The contract for this phase, amounting to EUR 1 038 million, was signed in Berlin on 19 January 2006. These new operations supplement those already undertaken or planned in order to complete the development phase. The total cost of the development phase, i.e. approximately EUR 1 500 million, is shared equally between the EU and the ESA. The in-orbit validation phase, whose cost is again shared equally between the EU and ESA, will lead to the installation of the first monitoring stations and the launch of the first four satellites in the constellation in 2008.

Status of the concession contract negotiations: negotiations with the eight-member consortium (Aena, Alcatel, EADS, Finmeccanica, Hispasat, Inmarsat, Thales and TeleOp) commenced following submission of a joint tender in 2005. An initial round of negotiations resulted on 17 February 2006 in an agreement on the principles to be followed during the remainder of the procedure. The main remaining differences of opinion concern the sharing of the risks associated with the system design and with commercial revenue and market development. By the end of 2006, the estimated costs and income and the public sector contribution will have been finalised. In addition, the financial plan will be confirmed and the main terms of the contract will be fixed. Then the stocktaking will be certified ("due diligence"), and the contract and the financial plan will be finalised. Lastly, between June and December 2007, financial closure will be achieved and the concession contract will be signed.

Establishment of the Supervisory Authority: the Authority will effectively start its operations towards mid-2006, when the 20 members of staff currently being recruited will take up their positions and when the basic administrative infrastructure has been set up. It will be based temporarily in Brussels until a decision on the location of its headquarters has been adopted. Since the Supervisory Authority is required to sign the concession contract, it is vital for it to be involved in the operations of the Galileo Joint Undertaking over the next few months, particularly in the negotiations for the concession contract. The Authority's 2006 work programme also covers the technical development of the system, including frequencies and certification, integration of the EGNOS programme into the Galileo programme, security, market development and activities under the Sixth Framework Programme for Research.

Transferring operations from the Galileo Joint Undertaking to the Supervisory Authority: the Commission has initiated procedures to wind down the Galileo Joint Undertaking by 31 December 2006, by which time all the activities of the Galileo Joint Undertaking will have been transferred to the Supervisory Authority. In 2006, its main task will be to conclude the concession contract negotiations, since responsibility for its other activities should be handed over to the Supervisory Authority at the earliest opportunity.

Preparation of the Galileo Applications: work has primarily concerned the use of satellite radionavigation in transport and telecommunications, the development of receivers, and projects to be carried out in the context of international cooperation. A final call for proposals, totalling EUR 10 million, will cover a number of very promising areas of application, such as the transmission of warning messages, the transportation of animals, the carriage of dangerous substances, etc. The Supervisory Authority is currently working alongside the Commission on specifying the projects to be undertaken under the Seventh Research and Development Framework Programme.

Deployment of EGNOS: construction of the infrastructure was completed in 2005 and EGNOS successfully passed its first Operational Readiness Review in respect of the "open" service. Work will be carried out in 2006 to ensure that the system is certified vis-à-vis applications which directly affect the safety of human life, such as civil aviation. As soon as the agreement with investors has been signed by the parties concerned, the Supervisory Authority will be in a position to include EGNOS in the GALILEO concession contract, thereby enabling the two systems to be fully integrated. The Commission plans to place the GALILEO and EGNOS programmes on the same budget line within the Community budget in respect of both the current phases and later phases of the programmes.

Development of a policy for access to the public regulated service (PRS): an initial approach to defining the policy was drawn up following work carried out within the Galileo Security Board (GSB). This involved specifying the objectives of PRS access policy and identifying the phases of implementation of the policy. Technical preparations will continue in order to allow the Member States intending to make use of PRS to, on the one hand, define the national needs in terms of using this service and, on the other, to designate an authority responsible for overseeing national users. This authority will liaise with the Supervisory Authority. By the end of 2006, the Commission will propose a plan to the Council concerning the implementation of PRS access policy, defining the technical and decision-making mechanisms to be set in place in good time for it to be possible to start using the PRS as of the end of 2010.

Promotion of satellite radionavigation by Community legislation: the Commission gives details of European legislation introducing the use of satellite radionavigation into various sectors with a view to helping ensure that this new technology is economically viable. An internal Commission group will be set up to survey the satellite radionavigation needs of European policies and in order to facilitate exchanges of information on the technical development of the system. The Commission will also present a Green Paper on GALILEO applications at the end of 2006.

Financing the Programme: On 14 July 2004, the Commission proposed a Regulation on financing the deployment and commercial operating phases of the GALILEO programme during the period covered by the 2007-2013 financial framework. The Council and Parliament positions on the proposal are very similar and are acceptable to the Commission. The text cannot be definitively adopted until the main terms of the concession contract are fixed. The exact final amounts for the entire concession period will depend on the arrangements for sharing the risks and financial burdens, which are the subject of the concession contract, and the instruments identified to cover them.

International Cooperation: cooperation agreements have been signed with China, and Israel. Similar agreements were initialled with Ukraine, with India, with Morocco and with South Korea. Further agreements are being drawn up with Norway and Argentina, and discussions are under way with Switzerland, Canada, Australia, Saudi Arabia and Brazil. Russian recently reaffirmed its interest in continuing discussions with the EU. The total interoperability of European and American systems has been guaranteed thanks to the agreement signed with the United States on 26 June 2004. Work carried out under this agreement is currently focusing on signal optimisation with a view to enhancing the performance available to users of both GALILEO and GPS systems. At this stage, the emphasis is on determining the scope and the arrangements for cooperation with third countries in future phases of the GALILEO programme, including at the institutional level, and taking account of obligations connected with intellectual property and the protection of dual-use technology.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 04/12/2001 - Document attached to the procedure

This document comprises of the progress report on the Galileo programme. This report is in response to a request by the April 2001 Transport Council. It takes stock of the progress of the Galileo satellite radionavigation programme so as to enable the December 2001 Transport Council to take the decisions needed to move on to the programme development phase in full knowledge of the facts, these decisions being: - adoption of the Regulation on the Statutes of the Galileo Joint Undertaking; - the release of EUR 450 million (from the appropriations assigned to the trans-European networks) to fund the development phase. In addition to this report, the summary and final report of the study of the financial prospects for the Galileo programme as a whole will be sent directly to Council and Parliament. With regard to the activities in 2001, the use of the EUR 100 million released by the April Transport Council authorised to the Commission to allocate this amount to Galileo for the pre-development phase. EUR 30 million was allocated to the ESA for studies and technical support measures for tasks definition and consolidation activities relating to the development phase of the Galileo programme. The remaining EUR 70 million will be allocated to the Joint Undertaking once it has been set up. It will make it possible in particular to fine-tune the definition of the different Galileo segments (space, ground and user segments) and their implementation. The sections concerning the integration of EGNOS into GALILEO and the security issue are in response to specific Council requests. Two options are envisaged: - option 1: would be a continuation of an operational EGNOS as GPS/GLOSSNASS overlay into an operational GALILEO environment; - option 2: would be a pre-operational integration of EGNOS signal in space into GALILEO with combined operational validation and certification. The option 1 necessitates, however, significant public funding for a long time after the completion of the ongoing ESA ARTES 9/EGNOS activities. In case the public sector will be unable to guarantee the required funding for option 1, option 2 could provide for a viable alternative. This solution would allow adopting EGNOS to the GALILEO services and a re-use of either infrastructure or technology know-how would enable Europe to fulfil its contribution to GNSS. It would thus provide for a unique European navigation transition strategy including the outlined cost saving potential. In any case the economic success of EGNOS will depend on quick transition from terrestrial infrastructure to EGNOS technology. With regard to the security of the system, the report indicates three aspects are concerned in this context: 1) security with regard to misuse of the GALILEO signal for hostile purposes; 2) the intrinsic security of the system itself with regard to an interruption in service, since the system comprises material components (infrastructures, ground stations, satellites, physical installations), as well as links and interfaces (communications, computer links, etc) and the signal itself; 3) data security, i.e. protection of information with regard to private operators, will raise the same questions as with mobile phones. The following principles - which concern intrinsic security and security with regard to misuse - have been adopted by experts: - space segment: unlike the GPS, the space component would not be protected against explosions or space debris which are rare at this altitude. on the other hand, uplinks and downlinks will be protected; - ground segment: the various components (monitoring stations, control stations, mission centres) and the links between the various centres and stations will be protected. The infrastructures will be regarded as sensitive as they are components of a space system. Files will be protected to prohibit the access, modification, copying, saturation or hacking of any kind. For all the space and ground components, security will concern both infrastructures and staff. It should be noted that the Commission's services are preparing a proposal for a Regulation to define the security rules which will apply to all the structures and staff working on the GALILEO project. Lastly, measures will be taken to prevent the misuse of GALILEO. Geographical access denials will be possible very rapidly.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

2001/0136(CNS) - 25/03/2002

The Council adopted conclusions concerning the implementation of the satellite navigation programme GALILEO. In particular the conclusions include a political agreement on the release of EUR 450 million from the Community budget to finance the development phase of the project. In the same context, the Council achieved political agreement on the draft Regulation on the establishment of the GALILEO Joint Undertaking, based in Brussels, which will be responsible for managing the development phase of GALILEO. After technical finalisation of the text of the Regulation, it will be adopted formally without discussion at a future Council meeting. The EUR 450 million approved by the Council - to be released in accordance with the budgetary procedures for trans-European networks (TEN) - are in addition to the EUR 100 million already committed by the Community budget and the EUR 550 million approved by the European Space Agency for financing the development phase of GALILEO. In addition, the Council agreed to allow private enterprise capital to participate, subject to certain strict conditions, and solely at the end of the tendering procedure launched by the Joint Undertaking. The Council agrees: - to launch the development phase of the GALILEO project and, therefore, on the proposal for a Council Regulation on the establishment of the GALILEO Joint Undertaking, requesting the Commission to set up the Joint Undertaking without delay in cooperation with the European Space Agency, in accordance with that Regulation; - that GALILEO is a civil programme under civil control; - to the release, subject to the appropriation procedures provided for under TEN, of EUR 450 millions for the financing of the development phase and the allocation of these resources to the GALILEO Joint Undertaking; - that Member States will not be requested to make direct financial contributions of their own national

resources to the GALILEO programme ; any further public sector funding of GALILEO, in any of its phases, should be met by redeployment under the appropriate ceilings of the Financial Perspectives in force at that time; - that at the end of 2003, the Commission informs the Council on the results of the tendering procedure launched by the Joint Undertaking. Thus, the necessary decisions will be taken by the Council on the deployment and operational phases, including on the maximum available Community funds for these phases, in order to guarantee the continued sound financial management of the GALILEO programme; - to follow the low-cost scenario proposed in recent studies to keep the public sector funding at the lowest level throughout successive phases of the programme, and, for the deployment phase, to work to secure a cost-share of at most 1/3 for the Community budget and at least 2/3 for the private sector; - to request the Joint Undertaking to take as a first guideline the mission requirements of GALILEO, as laid down in the Council Resolution on GALILEO of 5 April 2001 or later set up in line therewith; - that GALILEO should be interoperable with existing satellite navigation systems; it should in particular be interoperable with GPS and its successor systems through an EU-US agreement that should be negotiated as soon as possible; - to request Member States and the Commission to verify that all participants to the GALILEO programme who have to deal with classified information, both natural and legal persons, will be subject to rules similar to those contained in Council Decision of 19 March 2001 adopting the Council's security regulations (2001/264/EC); - to set up in 2002 a Security Board composed of representatives of the Member States; - that the Joint Undertaking, in close collaboration with all interested parties including the EOIG 1, prepares a detailed proposal regarding the optimal integration of EGNOS into the GALILEO programme (covering the technical, operational, financial and institutional aspects), and presents an action plan for decision by the Council as soon as possible, and in any event not later than the end of 2003.

GALILEO, satellite radionavigation programme: development phase, joint undertaking

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At the request of the United Kingdom, the Council held an exchange of views on the financial aspects of the Galileo project. The debate was introduced by Commissioner DE PALACIO, who described progress within the Transport Council, and the main lessons she had drawn from the study by consultants Price Waterhouse Coopers, which included an analysis of the financial aspects of the project, particularly the anticipated costs and benefits. Some delegations shared the Commission's position. However, the United Kingdom and four other delegations (Denmark, Austria, the Netherlands and Sweden) did not agree with the Commission's approach and issued the following statement (which will be entered in the Council minutes). These Member States reaffirm their commitment to securing finance for the Galileo satellite navigation programme largely from private sources. In particular, they recall that the private sector is required to take up the challenge with regard to participation in and financing of the project through a binding commitment for the deployment and operational phases. Sound financial management should be guaranteed. They have taken note of the PWC inception study, these member States note that the rate of return, given the level of uncertainty of revenues, will not be sufficient to attract private capital to fund the development phase of the project or to fund deployment in full. The study further concludes that a private public partnership for Galileo would therefore have to be based on a structure which involved continued public funding of deployment of the system, including some payments during operation, and that the private sector will not invest under the previously envisaged Joint-Venture type structure. The above-mentioned Member States consider that the results of the recently-issued study raise a number of important and complex questions on the level and nature of public and private investment. These questions require detailed consideration by the Council, before it should take a decision". The Irish delegation shared the concerns of the United Kingdom and the four other delegations regarding the need for additional time to reflect, to clarify Galileo's financing problems before taking a decision.