

# Le contenu et les priorités du domaine « Galileo »

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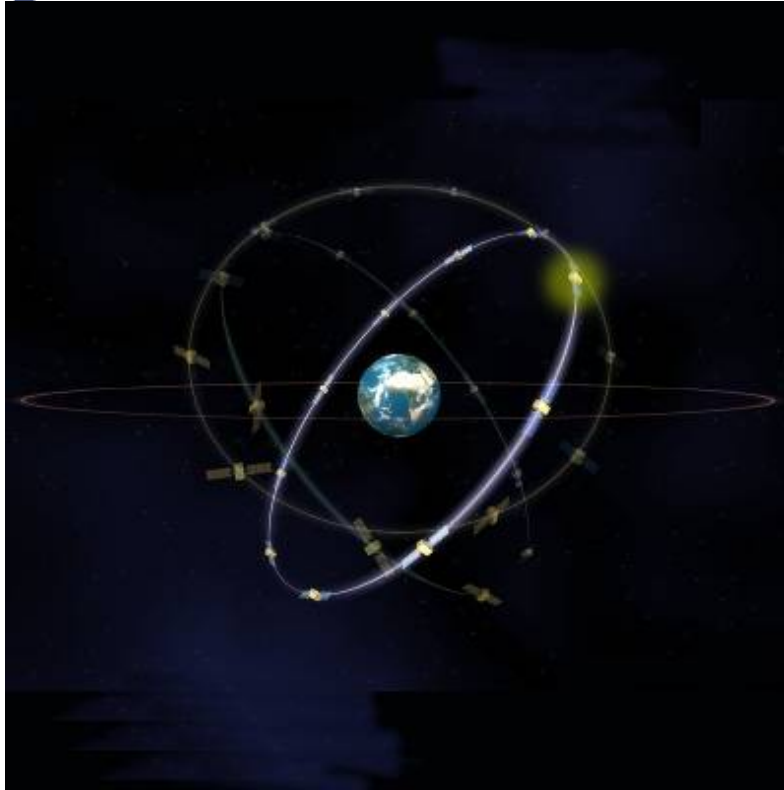
*Technical Division*

*Galileo Joint Undertaking*

# Plan

- *Introduction*
  
- *État du programme Galileo*
  - *Infrastructure*
  - *Concession*
  
- *Développement du segment utilisateur*
  
- *Présentation du contenu 7<sup>th</sup> FP*
  
- *Conclusion*

## *La constellation Galileo*



### *Constellation de 30-MEO*

*Walker 27/3/1*

*3 plans de 10 satellites chacun*






*9 satellites actifs et un en secours*

*Altitude : 23616 km*

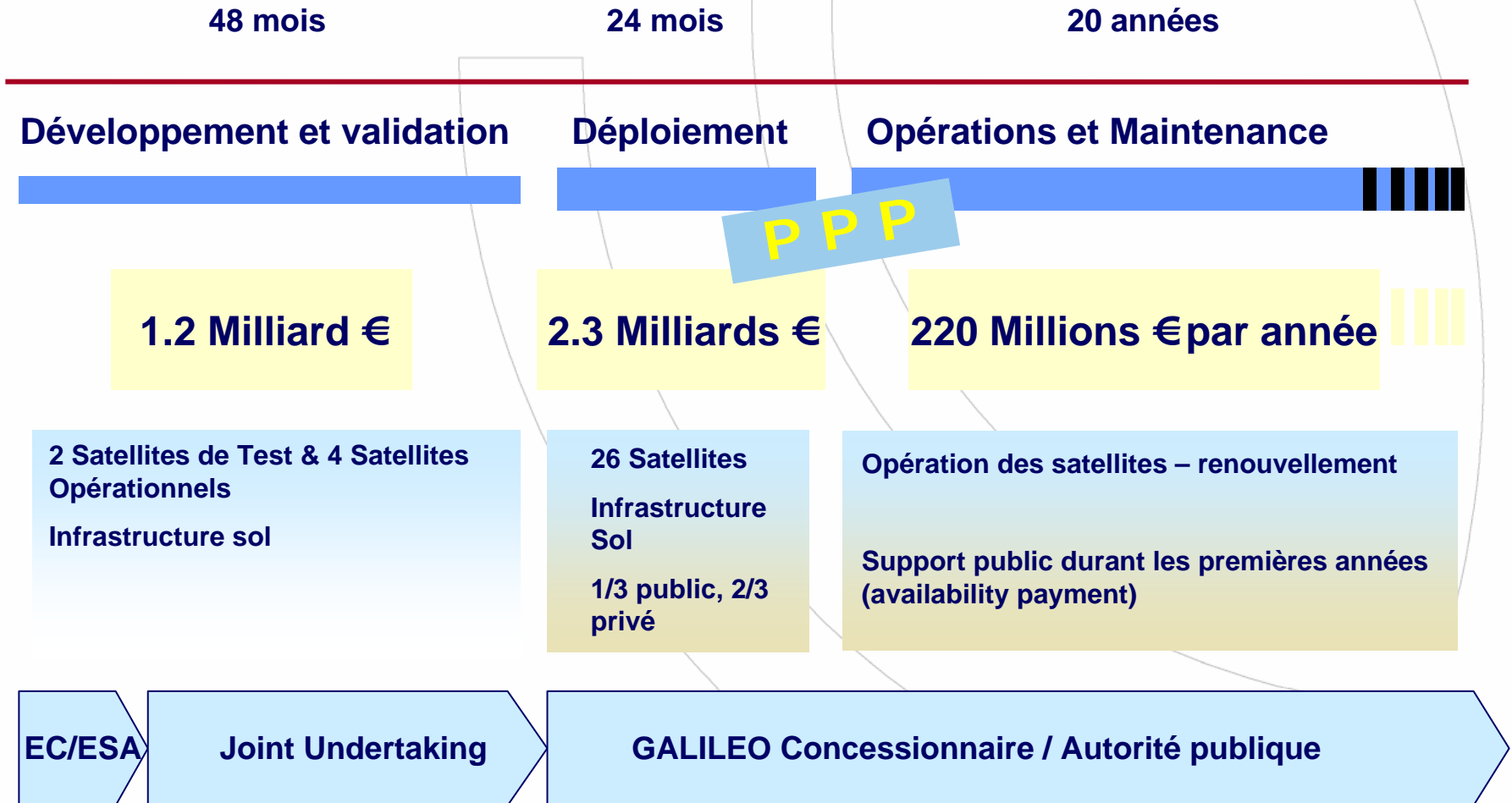
*Inclinaison : 56 deg*

*Chaque satellite accomplit 5 révolutions en 3 jours  
~ Période de 14 h 25'.*

# Les signaux de Galileo fournissent cinq services

<b>Navigation</b>	<b>Service ouvert</b>	Accès libre; Grand Public; Service de navigation et temps	
	<b>Commercial</b>	Crypté; haute précision; Garantie de Service	
	<b>Suret� de la vie (Safety of Life)</b>	Service ouvert + Integrit� et authentification des signaux	
	<b>Service Public (Public Regulated)</b>	Crypt�, grande robustesse	
<b>SAR</b>	<b>Recherche et Sauvetage</b>	D�tection temps r�el, voie retour	

# Calendrier et coût



# Tâches du concessionnaire

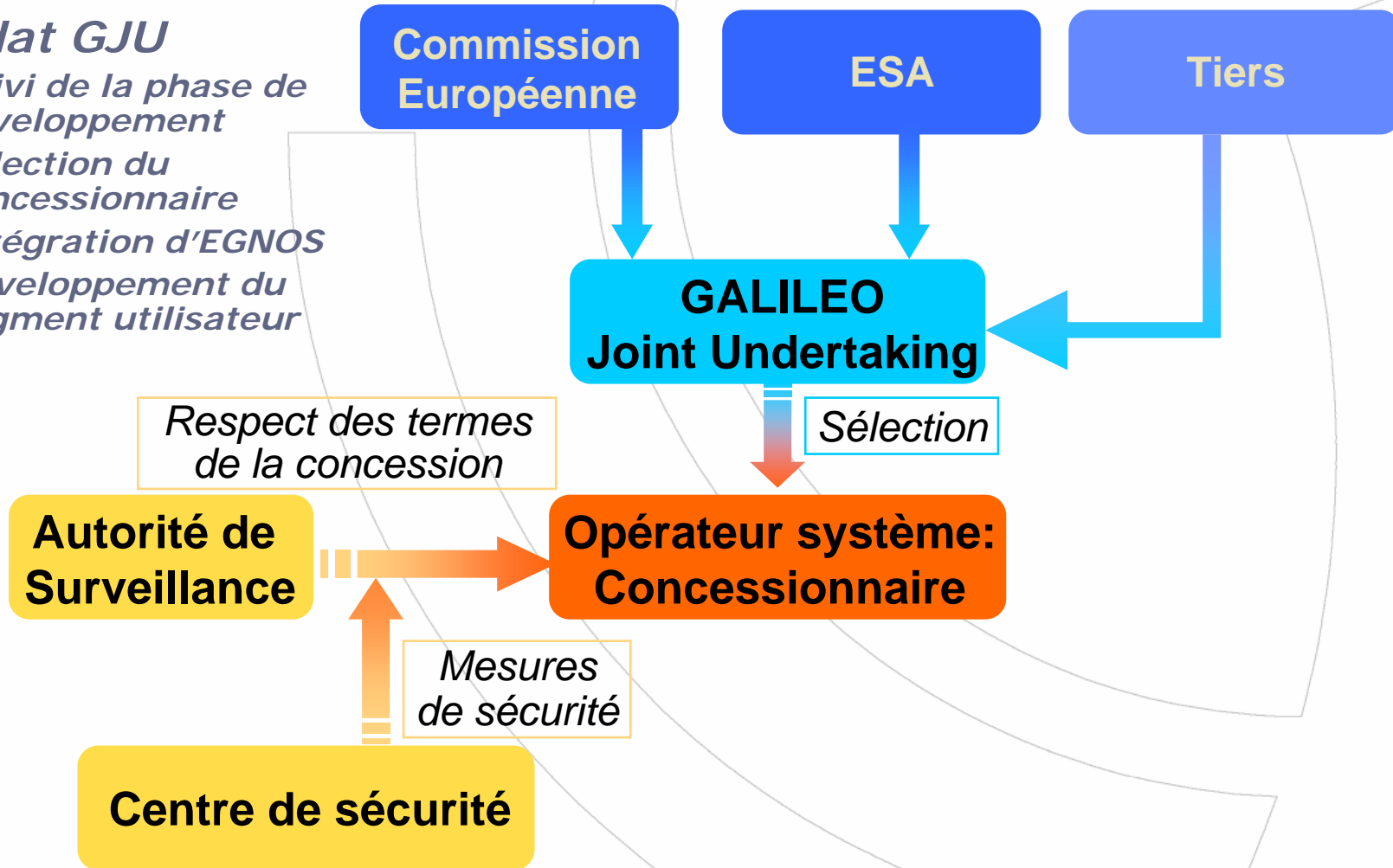
- **Déploiement des satellites opérationnels**
- **Déploiement de l'infrastructure au sol**
- **Opération du système**
- **Génération de revenus**
- **Renouvellement du système**



# Cadre institutionnel

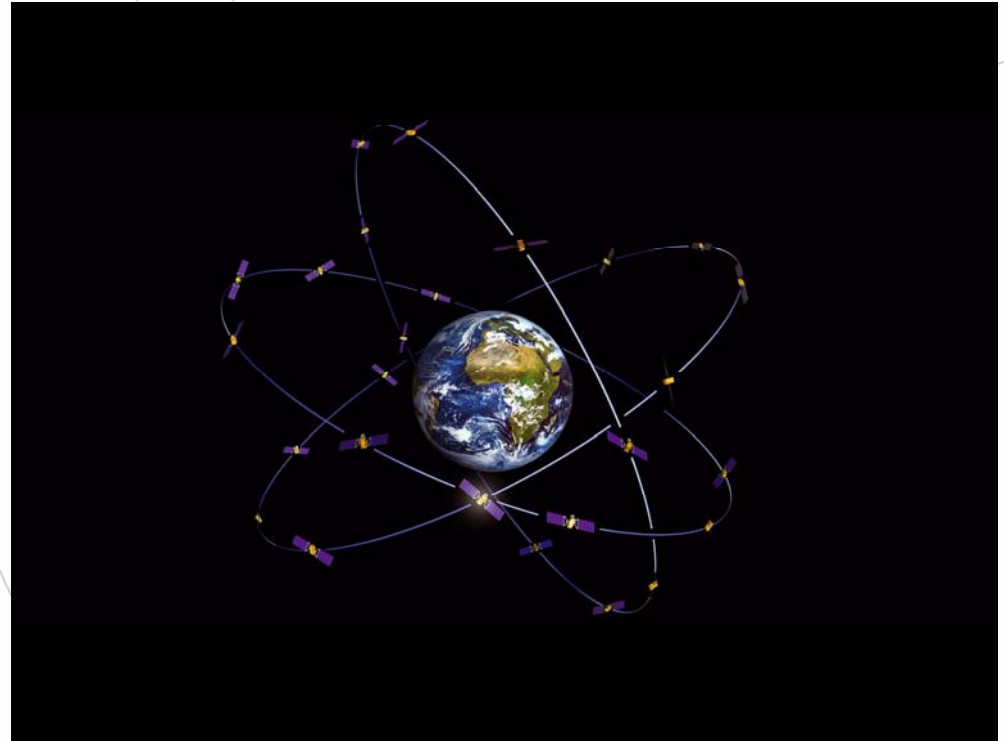
## ○ Mandat GJU

- *Suivi de la phase de développement*
- *Sélection du concessionnaire*
- *Intégration d'EGNOS*
- *Développement du segment utilisateur*



# Galileo User Segment development

- *Galileo infrastructure*
  - *Space segment*
  - *Ground segment*
- *Products delivered by the infrastructure are **SIGNALS***
- *The users are interested by **SERVICES***
- *The Galileo **USER SEGMENT** developed through the 6<sup>th</sup> FP is defined as the segment that translates the **SIGNALS** into **SERVICES** for the final users*





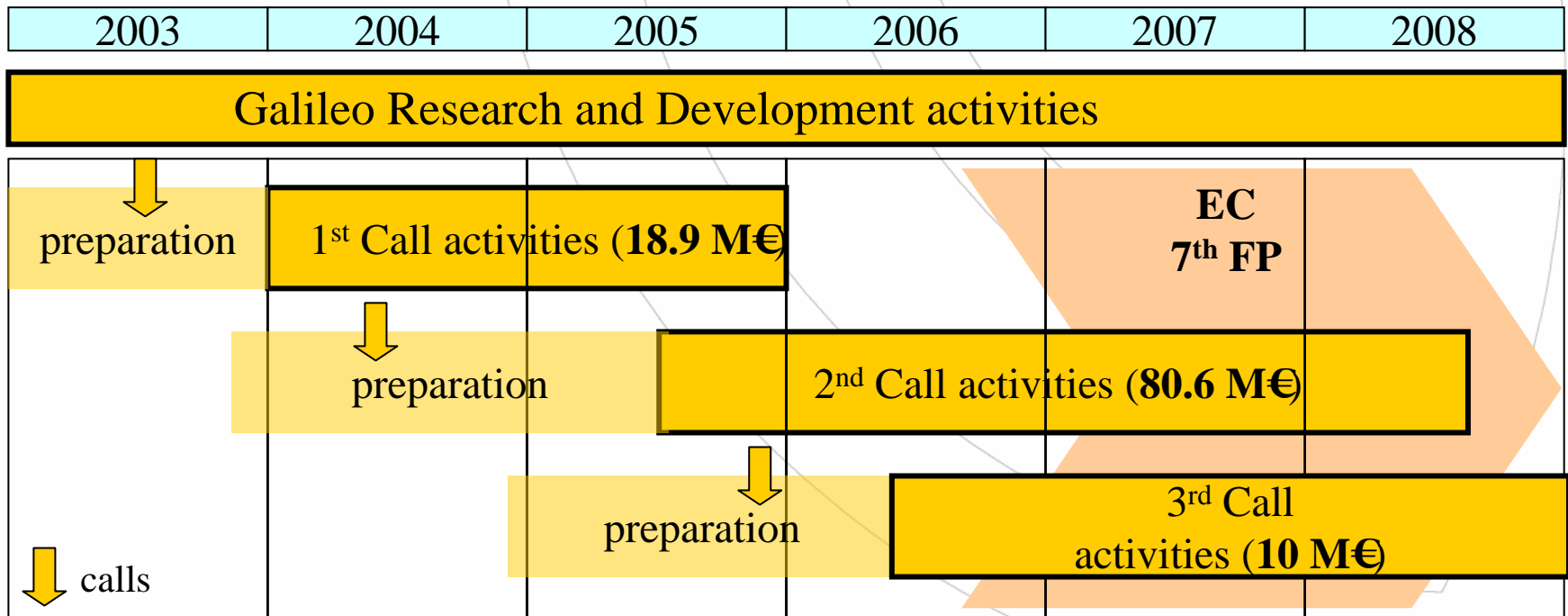
# Segment utilisateur: Applications

- *Transport*
  - *Rail, route, aviation, maritime...*
- *Professionnel*
  - *Ingénierie, agriculture, foresterie, recherche pétrolière, géomètre, gestion de flotte...*
- *Scientifique*
  - *Géodésie, météorologie, vulcanologie...*
- *Personnel et grand public*
  - *Services géolocalisés, randonneur, guidage, loisirs, ...*



## GJU 6<sup>th</sup> FP activities

- overall budget € 17.5 billion, 5-year period (2002-2006)
- Galileo with an overall budget of about **110 million€** falls under Thematic Priority 1.4 "Aeronautics and Space"
- Management of the Galileo 6th FP activities transferred by the Commission to the Galileo Joint Undertaking



# Results and outcomes

- *GJU has launched **70 projects** (including SMEs) dedicated to the development of the User Segment for an overall budget of **170 M€** (110M€ financed by GJU)*
- *More than **360 companies** (including a large number of **SME's**) are now involved in the Galileo R&D activities financed by the GJU*
- ***300 equivalent full-time persons** are continuously working in these projects*
- *Several **HW/SW** and **IP/patents** developed (potential revenue for the concessionaire)*

# General description of the FP7

- *Four Research Vectors are defined in the GNSS Work Programme (sub-theme 7.3):*
  - *Vector 1: Exploiting the full potential*
    - *To promote and expand the use of Galileo positioning and navigation functions in a wide range of applications and services*
  - *Vector 2: Preparing the tools and creating the appropriate environment*
    - *To provide enablers and the regulatory framework to push Galileo applications and services*

# General description of the FP7

- ***Vector 3: Adapting receivers to requirements and upgrading core technologies***
  - ***To drive the development and technologies of Galileo receivers, user terminals and local elements***
  
- ***Vector 4: Supporting infrastructure evolution***
  - ***To ensure the modernization of the Galileo system to cope with the evolving user needs and market evolution while enhancing the cost effectiveness of the infrastructure***

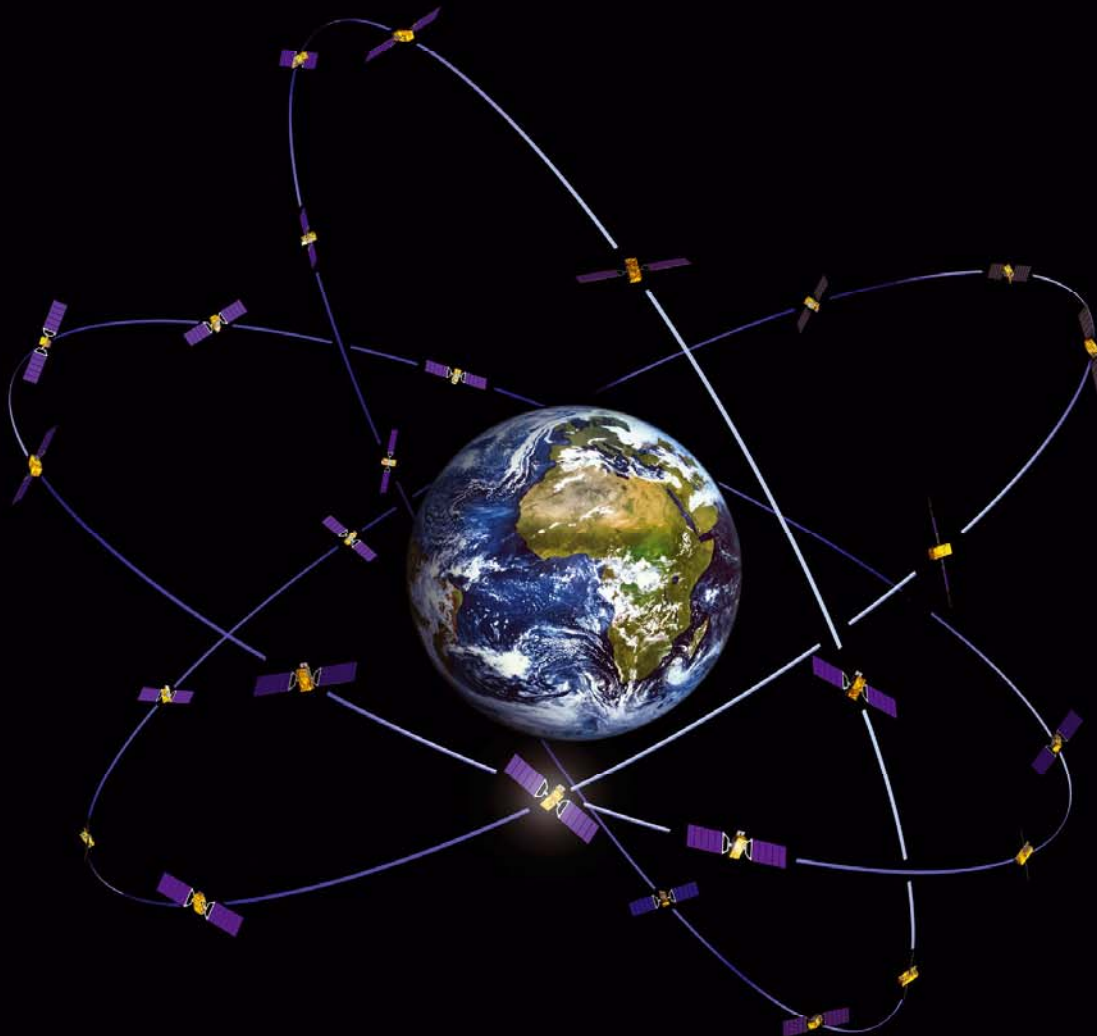
# Preparing the 1st Call (1)

- *Expert Groups have been set up*
  - *to ensure a realistic, objective, broad and neutral vision of the Satellite Navigation in Europe for the years 2010 – 2020*
  - *to propose the evolution path from the current situation to this prospective vision*
  - *to identify European strengths (or capacities) and weaknesses (or gaps) in the R&D GNSS area*
  - *to support the definition and selection of the 1st call activities*
  - *the expert group will provide its final recommendations for the FP7 GNSS implementation plan by end November 2006.*

## Preparing the 1st Call (2)

### ○ *Call for ideas*

- *A call for ideas has been issued to capture an accurate GNSS interest profile of the European industry and the relevant national research institutes*
- *This GNSS interest profile is being used as an important input for the development of the Strategic GNSS R&D Roadmap*
- *The Call for Interest has been published on the website of the GJU on July 13th, 2006*
- *250 responses have been received by the due date of the submission (Sep 8th, 2006) and are currently being analysed.*



Many thanks

[www.galileoju.com](http://www.galileoju.com)