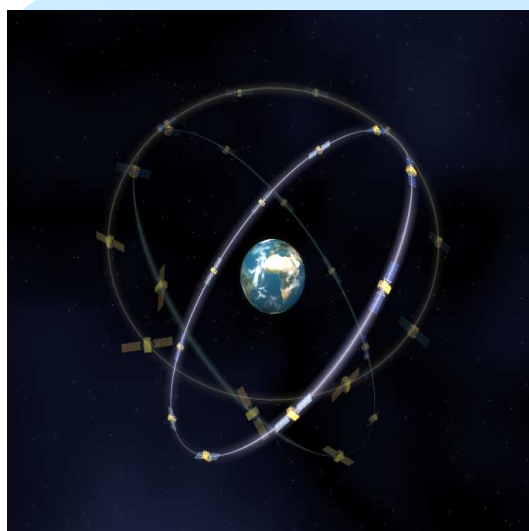




European Commission



GALILEO

***The
countdown
has started***

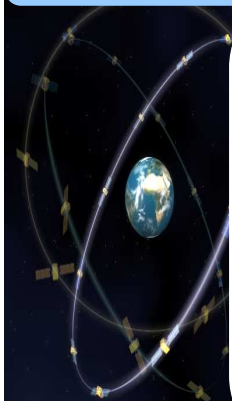
April 2002





What is Galileo?

The European satellite radionavigation programme



Galileo will enable everyone equipped with a receiver, for example built into their mobile phone, to receive signals from several satellites and thus determine their exact **position in time and space** at any given moment.

Galileo is based on a constellation of **30 satellites** placed in orbit and continuously covering the entire surface of the earth.

How far is Galileo?



2002-2005

2006-2007

From 2008

The definition phase has already been completed.

Development and validation phase

Deployment phase

Commercial operation phase

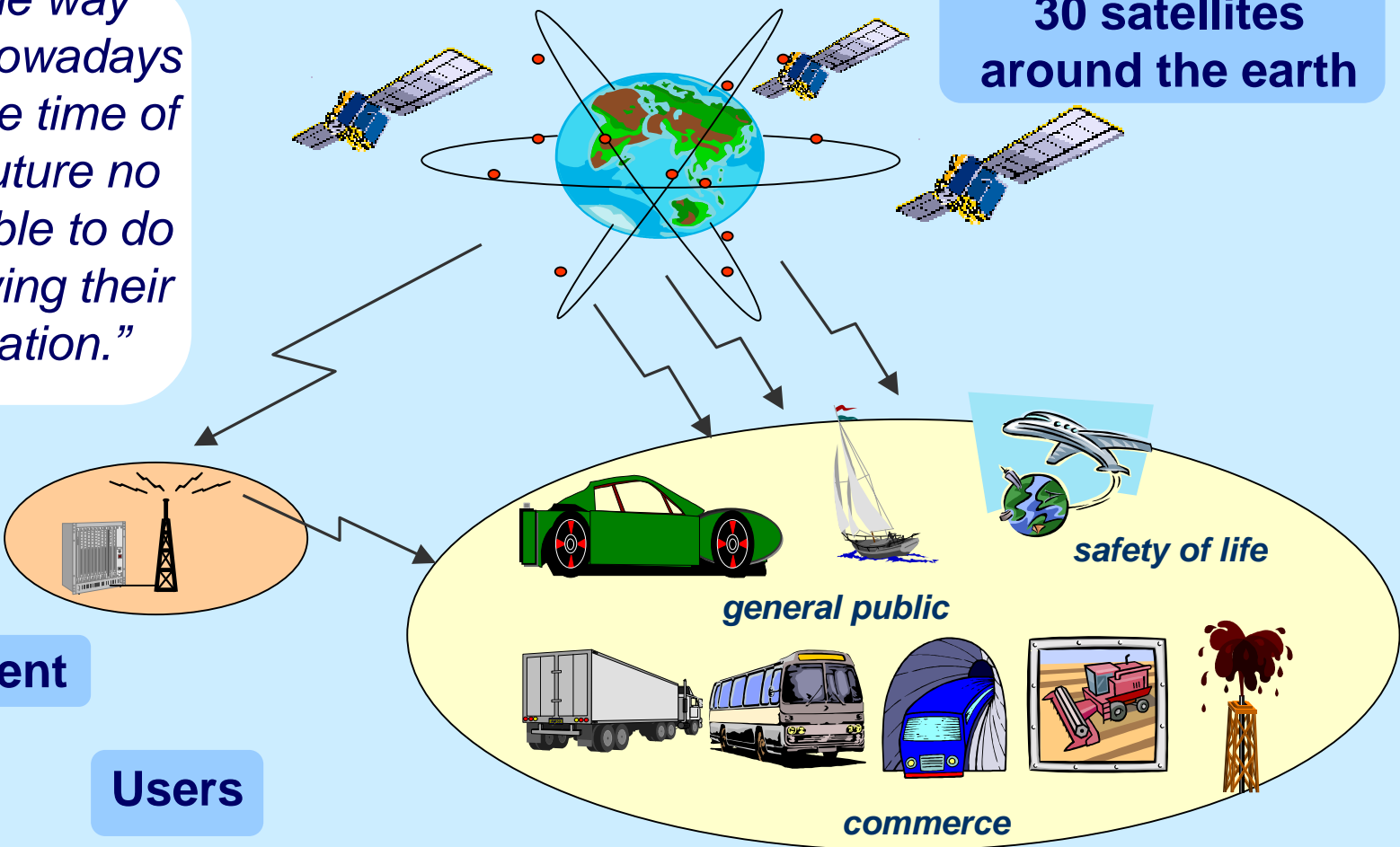




Illustration

“In the same way that no one nowadays can ignore the time of day, in the future no one will be able to do without knowing their precise location.”

30 satellites around the earth



Local element

Users





A major challenge..

Technological



Like other major European projects such as Airbus or Ariane, **Galileo** represents a **technological revolution** comparable to that sparked off by the mobile phone.

Economic



Galileo heralds the development of a **new generation of services**: automated vehicle guidance systems to reduce traffic jams and cut the number of accidents, oil prospecting, conservation of the ecosystem, management of scarce resources such as water, financial transactions, and safety of persons and property.

Political



Satellite radionavigation will set off such a revolution that the European Union needs to **have control of this technology vital to running the society of tomorrow.**





Galileo/GPS: competing & complementing

Galileo is the only alternative to a monopoly for GPS



The existing systems - GPS (American) and GLONASS (Russian system) - were both designed as military systems.

Galileo: a universal service



- higher degree of **precision** than the GPS today
- more **reliable** than GPS at all latitudes
- real public service guaranteeing **continuity** of service
- suitable for different types of user: general public, commerce, public services, search and rescue, etc.)

Galileo and GPS are complementary



Coordinated use of both infrastructures offers greater precision and greater security. Users will receive both GPS and GALILEO signals on the same receiver.





Galileo: the criticism is unfounded

GPS is free, but Galileo has to be paid for?

- Like GPS, Galileo will be **free of charge** to basic users.
- Some applications will have to be paid for - those requiring a **quality of service which GPS is unable to provide.**
- The GPS of the future could perhaps offer such services too, but there is no guarantee that they will be free, least of all if GPS holds a monopoly!

Galileo: the security conditions are satisfactory

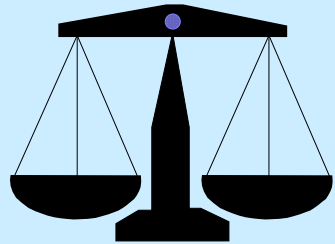
- An appropriate **security** framework is specifically required.
- All services provided by Galileo will be monitored by the authorities.
- U.S. concerns that Galileo could cause interference with the military GPS have been taken into consideration in the form of flexible solutions on use of the radiofrequency spectrum.





Unquestionably economically viable

It is not expensive



Development and deployment costs are put at **€3.2 billion**.

That is the price of **150 km** of semi-urban motorway or of **just one track** of the main tunnel for the future high-speed rail link between Lyon and Turin.

Highly economically viable



Benefit/cost ratio: 4.6 over 20 years, taking air and sea transport alone. No other infrastructure project in Europe can match a ratio like that.

Jobs created: > 100 000

Market created: €9 billion/year

Society as a whole will benefit, not just investors in the programme. For example, improving air traffic control will save passengers time and airlines money and cut pollution by emissions from aircraft.





No need for contributions from national budgets

Development phase (2002-2005)

The €1.1 billion needed has already been set aside in the Community and the European Space Agency budgets (each will pay equal amounts).

Deployment phase (2006-2007)

Funding will be provided for in the next forward plan for the Union's budget. Allowance will be made for a financial contribution from private-sector participants in the project.

Operation phase (starting in 2008)

Public participation will gradually decrease until 2015 and will be covered by the Community budget. During this commercial phase this public funding will be offset by revenues to the operator ranging from value-added services to the exploitation of intellectual property rights on chipsets





The development phase has finally been launched

On 26 March, the Transport Council agreed on the Regulation governing the statutes of the Joint Undertaking...



- Commission to establish the Joint Undertaking as soon as possible together with ESA
- Private sector participation possible at a later stage

...and on the release of the remaining €450m to fund the development phase



- €450m as Trans-European Network project with the Joint Undertaking as beneficiary (in addition to €100m already released and €550m ESA contribution)
- annual payments from 2002 to 2005





The Joint undertaking

An original solution

Role

To establish management structures and a business plan.
To harness public and private funding.
To publish calls for tenders to set up the system.
To launch, through ESA, the first satellites.

For the first time ever this form of company provided for under Article 171 of the Treaty is being set up. It will allow a single effective management body for Galileo combining public and private funding.

Structure

Set up: 2002-2005
Seat: Brussels

Founder members: Community, European Space Agency

Members:

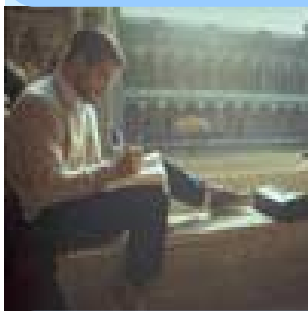
- European Investment Bank
- at a later stage, any business subscribing €5 million or more (€250,000 for SMEs)





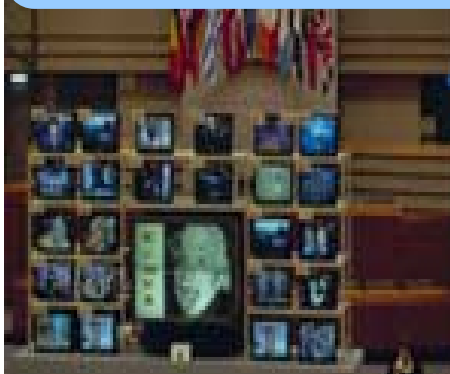
Private sector participation welcome

The Joint undertaking provides the opportunity to enlist private sector support for the project



This is a **business oriented** programme. Private sector involvement ensures proper market approach and service-oriented infrastructure development.

Conflicts of interest to be avoided



Private sector can become Member of the Joint Undertaking once the call for tenders with a view to selecting the future operator has been finalised (at the latest by end of 2003).





Joint Undertaking: How it works

