
GALILEO OPPORTUNITIES

6th February, 2007

Naples & Turin Chambers of Commerce

Mr. G. G. Calini

Head of the Market Development Department

GSA

GNSS - Recent Success Stories

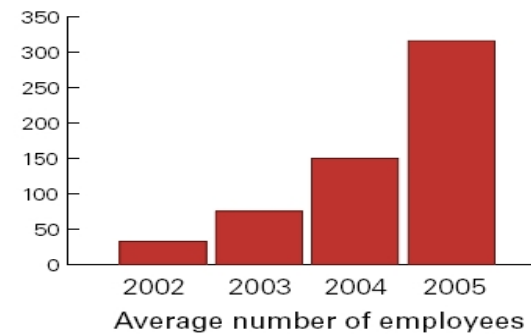
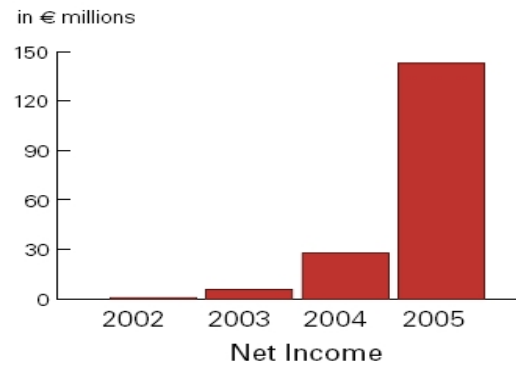
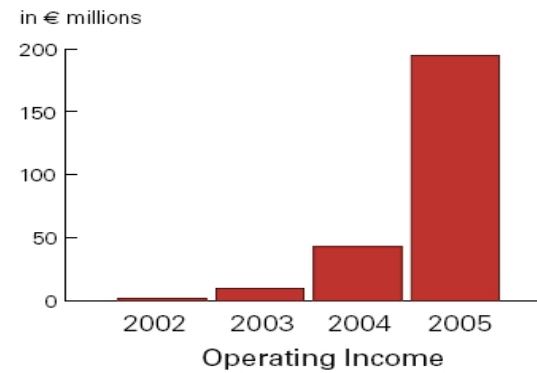
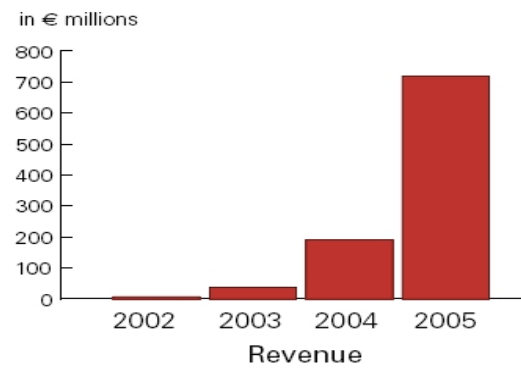
NORDNAV



R&D Project
funded by FP6

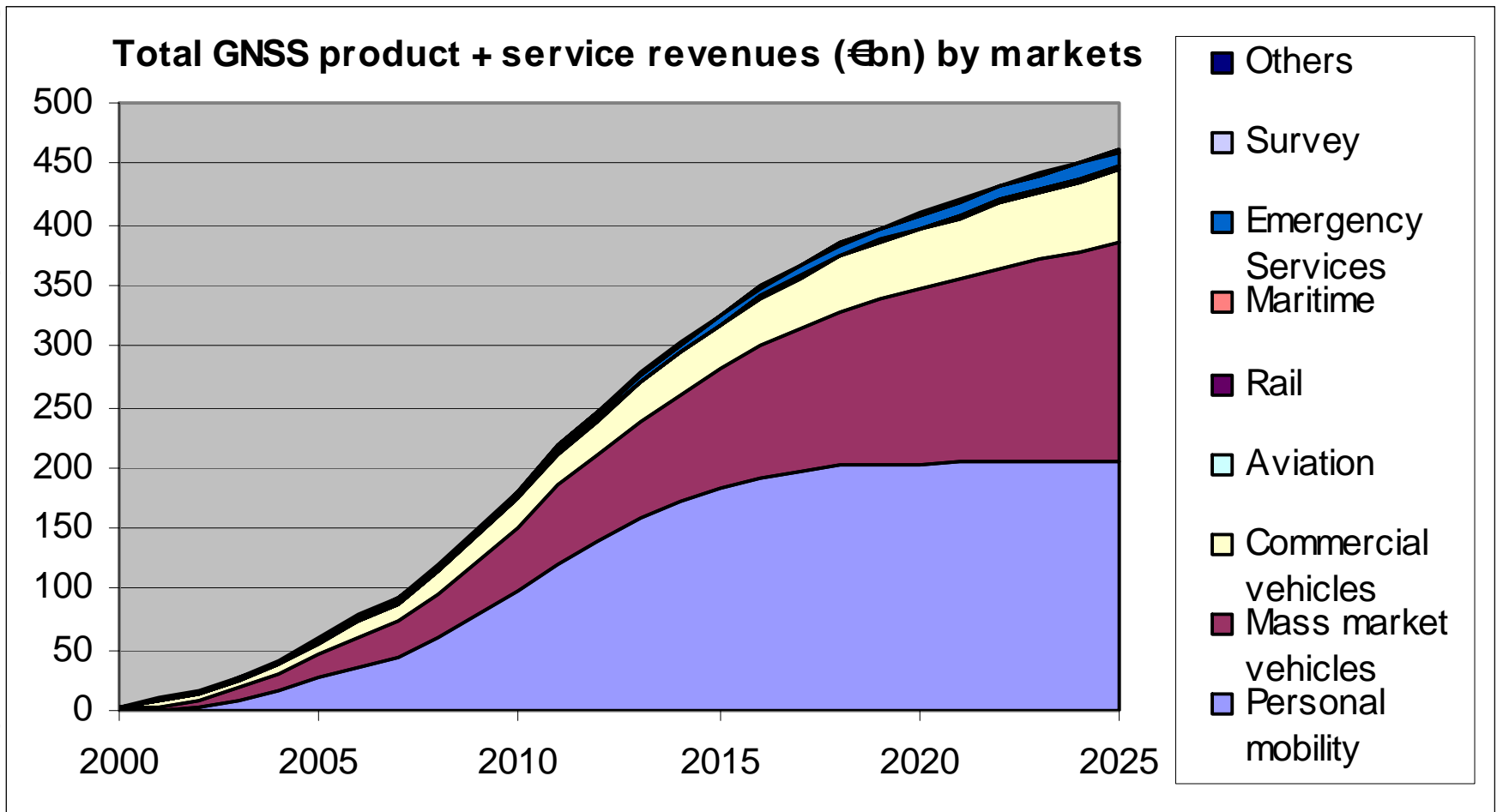
GNSS - Recent Success Stories

TOMTOM



GALILEO Overview: Market forecast

Total GNSS turnover (products + services) by markets (€bn)



GNSS market uptake forces

The GNSS market uptake is driven by different “forces”:

1) **Market pull forces:**

benefits coming from tech performances, new services/products, security, safety, service guarantee and other non-tech performances.



2) **Regulatory led forces:**

directives, standards, certification, security.

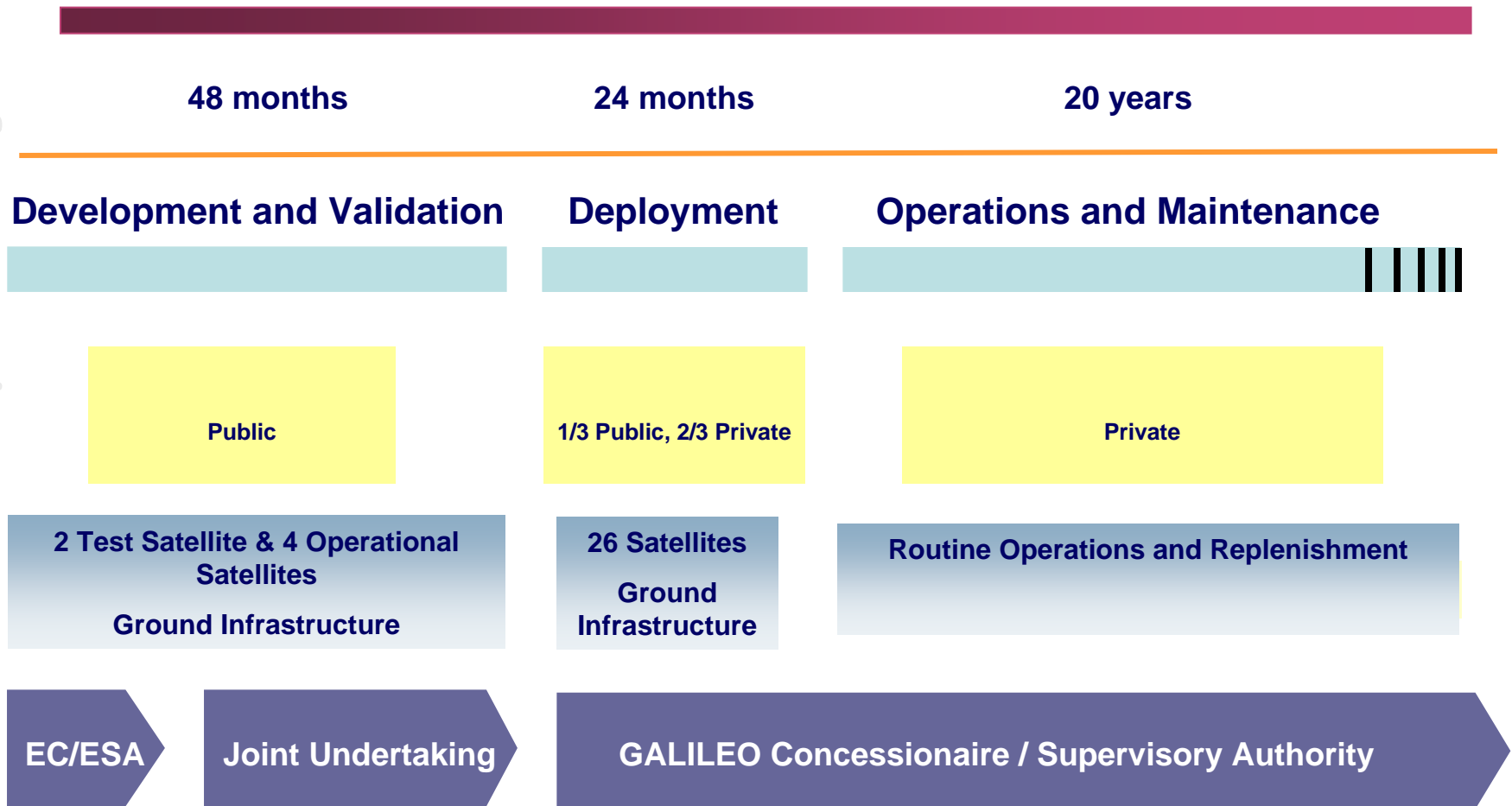


3) **Scientific and Social benefits forces:**

Driven by “non-commercial” benefits related to environment protection, civil protection, emergencies, scientific and research activities.



Galileo Programme Complexity



The Galileo differentiators

- ◆ Technical advantage
 - High performance – possible signal encryption and authentication

- ◆ Integrity
 - To monitor the system performance

- ◆ Transparency, auditability and record of past performance
 - To provide service guarantee and quality of service

GALILEO application overview

Safety of Life

- Aviation
- Rail
- Maritime
- Inland waterways
- Ambulance
- Police / Fire
- Search and Rescue
- Personal Protection
- Traffic surveillance
- Dangerous goods trans.
- ADAS – Advanced Driver Assistance

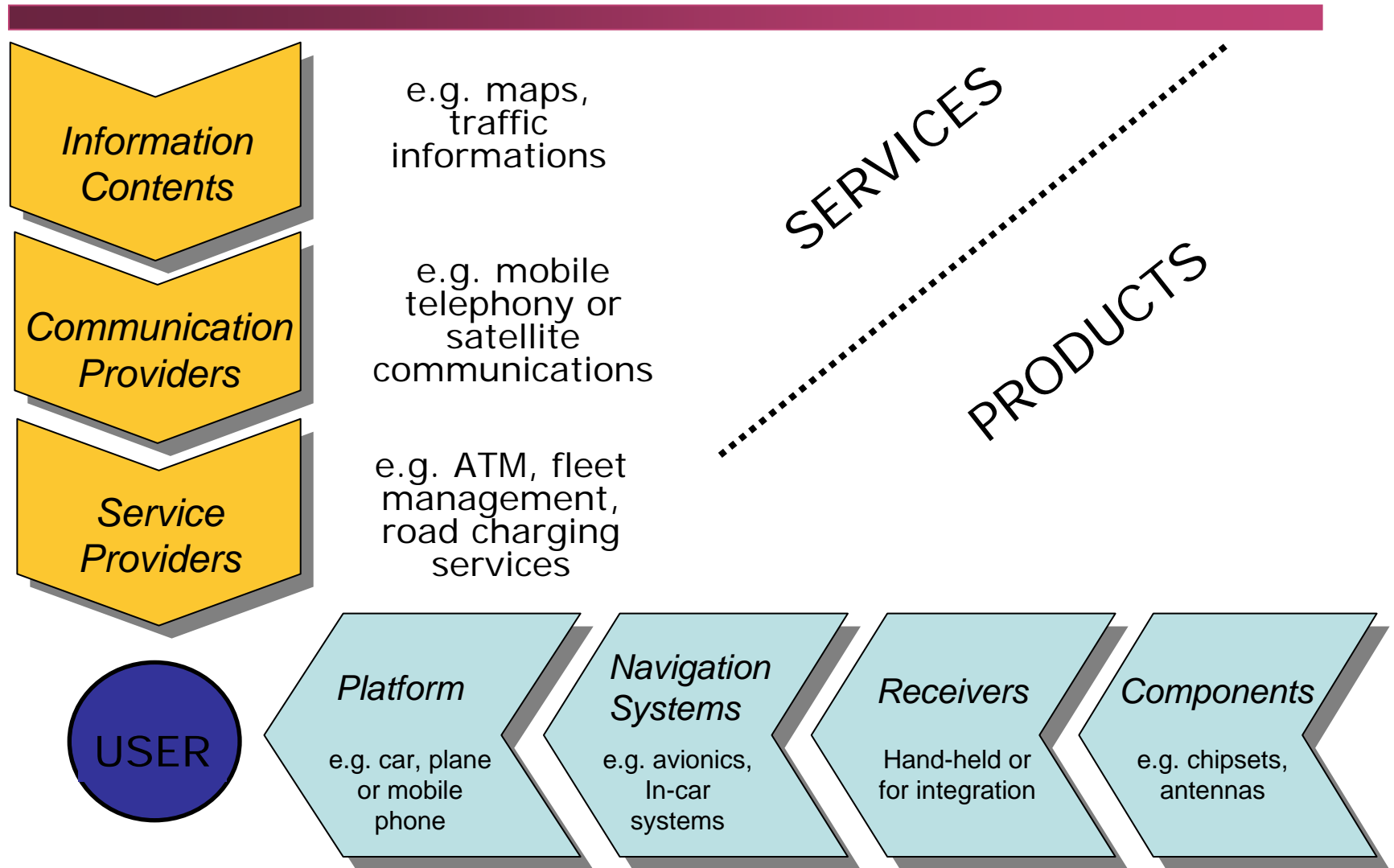
Mass Market

- Personal communication and navigation
- Cars / motorcycles
- Trucks & buses
- Light Commercial Vehicles
- Personal outdoor recreation
- Road tolling and charging (city access)
- Insurance "pay per use"
- Support to Customs, Traceability and quality of food
- Tracking and tracing for regulated activities

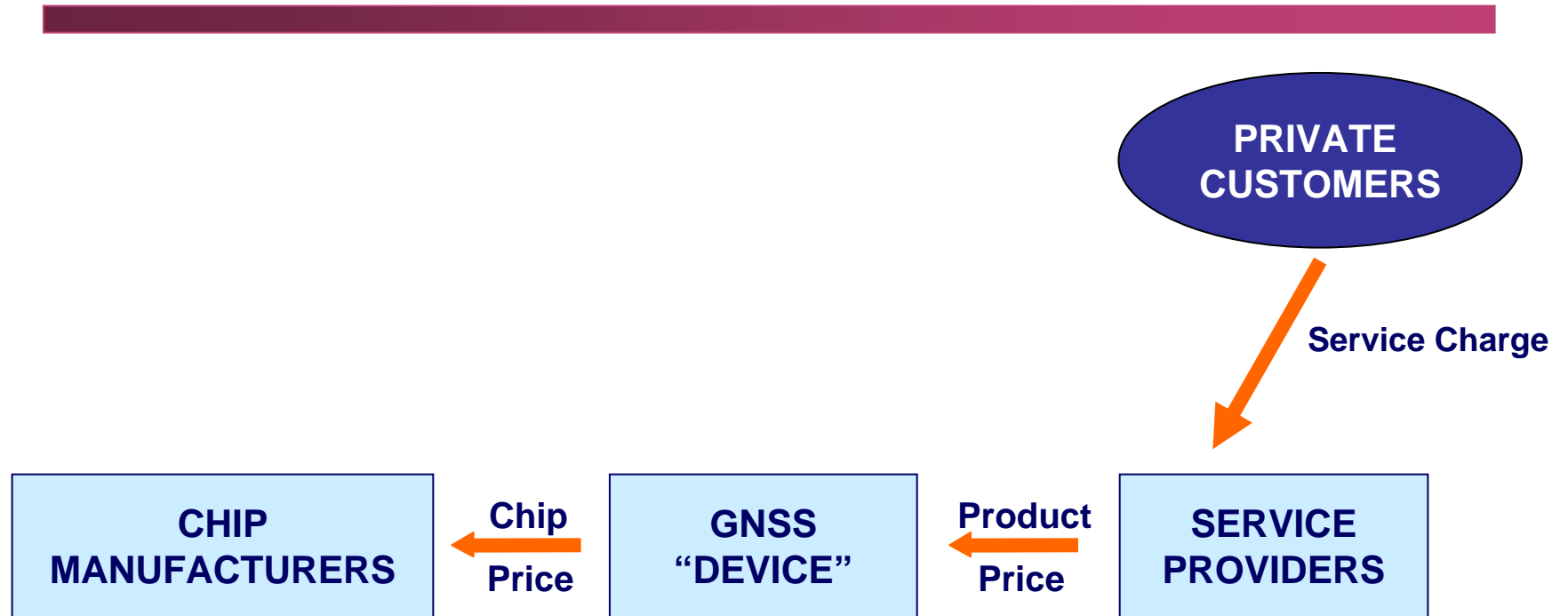
Professional

- Oil and Gas
- Mining
- Timing
- Environment
- Fleet Management
- Asset Management
- Geodesy
- Meteorological forecasting
- Land Survey / GIS
- Precision survey
- Precision Agriculture
- Fisheries / EEZ
- Vehicle control and robotics
- Construction / Civil Engineering
- Surveys for public interest (cadastre, agriculture parcels, energy networks, environment)
- Time-stamping for e-commerce transactions
- Dangerous and high valuable goods transportation

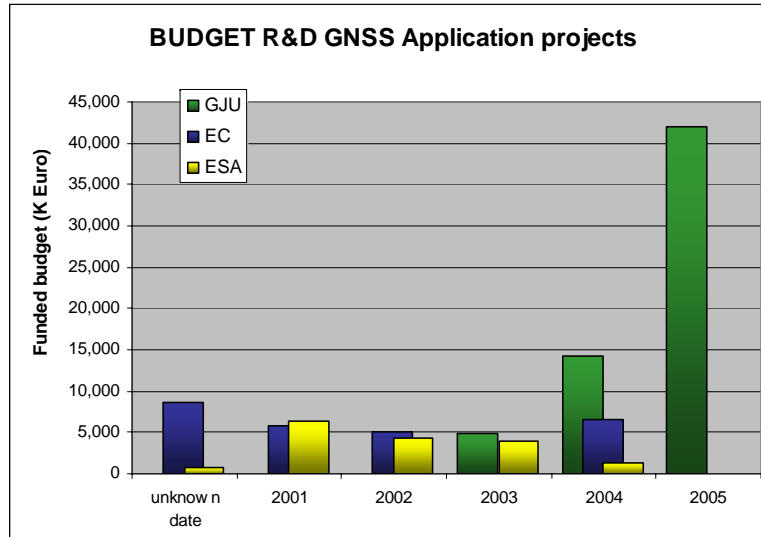
Value-added chain opportunities for each application



Potential Revenue Opportunities



European R&D initiatives for Galileo applications



Galileo 6FP (2002-2006):

EUR 110 M

Galileo 7FP (2007-2013):

EUR 350 M

Objective: to introduce Galileo services in different user communities, such as LBS, Road, Maritime, Aviation, Rail, Multimodal, Scientific, Agriculture, Oil & Gas, Emergency services, time & synchronisation...

Areas of interest

- Technical feasibility
- Service prototyping
- Market analysis
- Standardisation