

ORganisation of European GNSS Industry

China - Europe Galileo Industry Seminar

Beijing

17- 18 December 2002

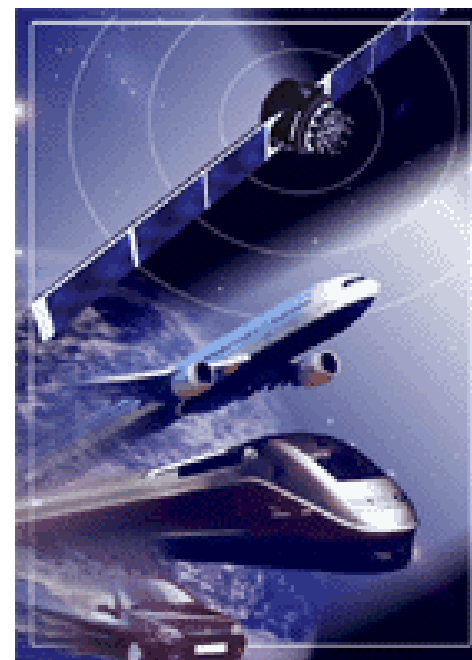
WHAT IS OREGIN ?

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The **OR**ganization of **E**uropean **G**nss **I**ndustry of equipment and services, has been created in Feb 1999 for:

- information exchange
- cross-fertilisation of expertise
- point of contact/industry voice for the European Institutions
- publicity and lobbying
- fostering co-operation with non-European industries creating opportunities in overseas and global market



MEMBERS



- 106 members
including international industry organisations and national groups
(close to 200 industrialists represented)
- Industries from 14 European countries
- From SMEs to biggest groups



MEMBERS PROFILE (1/2)



- **Chip producers, Equipment manufacturers, Software developers, Service providers, Integrators, Telecom and Car manufacturers, ...**



Source: OREGIN Members websites

MEMBERS PROFILE (2/2)



- Experienced in all kinds of applications:
 - Safety of Life, Governmental, Professional, Mass markets
 - Air, Maritime, Rail, Road, Intermodal, Pedestrian, Leisure, Geodesy, Scientific, Agriculture, Space, ...



Source: OREGIN Members websites

OREGIN MEMBERS LIST



- | | | |
|---|---|---|
| <ul style="list-style-type: none"> · ACSA (FRANCE) · Advanced Aviation Technology (UK) · ADVETO AB (SWEDEN) · AERODATA F. (GERMANY) · AGROCOM (GERMANY) · ALCATEL/SEL (GERMANY) · ALENIA (ITALY) · ALGONET (GREECE) · ALGOSYSTEMS (GREECE) · ASTRIUM (UNITED KINGDOM) · BMW-AG (GERMANY) · BOMBARDIER TRANSPORTATION (GERMANY) · CAA (GERMANY) · CAP GEMINY ERNST & YOUNG (FRANCE) · CARLO GAVAZZI SPACE (ITALY) · CLARITI Technologies (FRANCE) · COM DEV Europe (UNITED KINGDOM) · CRYPTOLOG INTERNATIONAL (FRANCE) · CS Communication & Systèmes (FRANCE) · DAIMLER CRYSLER GROUP (GERMANY) · DIGINEXT (FRANCE) · EADS (FRANCE) · EDISOFT (PORTUGAL) · EGERY (FRANCE) · ELNA (GERMANY) · ERICSSON TELECOMUNICAZIONI (ITALY) · ERTICO (INTERNATIONAL) · EURO-TELEMATIK (GERMANY) · EUTELSAT (INTERNATIONAL) · FDC (FRANCE) · FIAT (ITALY) · HELIOS TECHNOLOGY (UNITED KINGDOM) · HELLENIC AEROSPACE INDUSTRY (GREECE) · HIGH TECHNOLOGY ASSOCIATES (UK) · IFEN (GERMANY) · IMEC (BELGIUM) · INDRA ESPACIO (SPAIN) | <ul style="list-style-type: none"> · INECO (SPAIN) · INFORMATION TECHNOLOGY SERVICE (ITALY) · INSYST (FRANCE) · INTECS SISTEMI (ITALY) · I-SPACE (FRANCE) · KONGSBERG (NORWAY) · LABEN (ITALY) · LEICA GEOSYSTEMS (SWITZERLAND) · LNR Globalcom (THE NETHERLANDS) · LOGICA (UNITED KINGDOM) · MAN TECHNOLOGIE (GERMANY) · MANNESMANN VDO (GERMANY) · MARCOSOFT (ITALY) · MLR Electronique (FRANCE) · MORS (FRANCE) · NATIONAL PHYSICAL LABORATORY (UK) · NAVIONICS (ITALY) · NAVOCAP (FRANCE) · N2C (FRANCE) · NEMERIX (SWITZERLAND) · NEXANS (BELGIUM) · NEXT (ITALY) · NOKIA (FINLAND) · OMNISTAR BV (THE NETHERLANDS) · ORMSTON (UNITED KINGDOM) · POLE STAR (FRANCE) · RAYTHEON (UNITED KINGDOM) · ROBERT BOSCH (GERMANY) · ROKE MANOR RESEARCH (UNITED KINGDOM) · SAGEM (FRANCE) · SATCON (GERMANY) · SATPLAN (FRANCE) · SCHLUMBERGER SEMA (SPAIN) | <ul style="list-style-type: none"> · SENA GPS (SPAIN) · SENER (SPAIN) · SEPTENTRIO (BELGIUM) · SKEYE (GERMANY) · SOCRATEC (GERMANY) · SOCRATEC NAVSAT (SPAIN) · SPACECHAKER (BELGIUM) · SPACE SYSTEM FINLAND (FINLAND) · SPIRENT COMMUNICATIONS (UK) · ST MICROELECTRNICS (UK) · TCHIP SEMICONDUCTOR (SWITZERLAND) · TECHNIUM (FRANCE) · TECHNOMAR (GERMANY) · TELE ATLAS (BELGIUM) · TELEMATICA (GERMANY) · TELECONSULT (GERMANY) · TELESPAZIO (ITALY) · TELIT (ITALY) · TEKELEC Systèmes (FRANCE) · TERRAFIX (UNITED KINGDOM) · THALES (FRANCE) · THALES AIBORNE SYSTEMS (FRANCE) · THALES AIR DEFENCE (FRANCE) · THALES ATM (GERMANY) · THALES ATM (UNITED KINGDOM) · THALES AVIONICS (FRANCE) · THALES AVIONICS (UNITED KINGDOM) · THALES COMMUNICATIONS (FRANCE) · THALES NAVIGATION (FRANCE) · THALES RESEARCH (UNITED KINGDOM) · THALES TRACKS (UNITED KINGDOM) · VITROCISSET (ITALY) · ZENITEL (BELGIUM) |
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EUROPEAN GNSS INDUSTRIAL ORGANIZATIONS MEMBERS OF OREGIN

- ASA - Austrian Space Agency (Austrian Industry)
- Navigate Consortium (Italian Industry)
- SGIC - Scandinavian GNSS Industry Council (Scandinavian Industry)
- GSS - Galileo Sistemas y Servicios (Spanish Industry)

MISSIONS AND OBJECTIVES



- To support the development of GALILEO users segment equipment and services,
- To provide public authorities with technical and marketing expertise and support in analysing the impact of GALILEO architecture on user equipment and services,
- To support the necessary efforts on standardisation and certification for the development of user segment equipment and services,
- To foster the identification of business opportunities and define the necessary actions to ensure their success,
- To foster partnership between industrialists and in particular between large corporations and SMEs,
- To rapidly and efficiently circulate relevant information,
- To promote EUROPEAN industry, technology, products and services,
- To encourage participation of universities and research centres in R&D activities related to GALILEO developments.

What do we expect from Galileo?

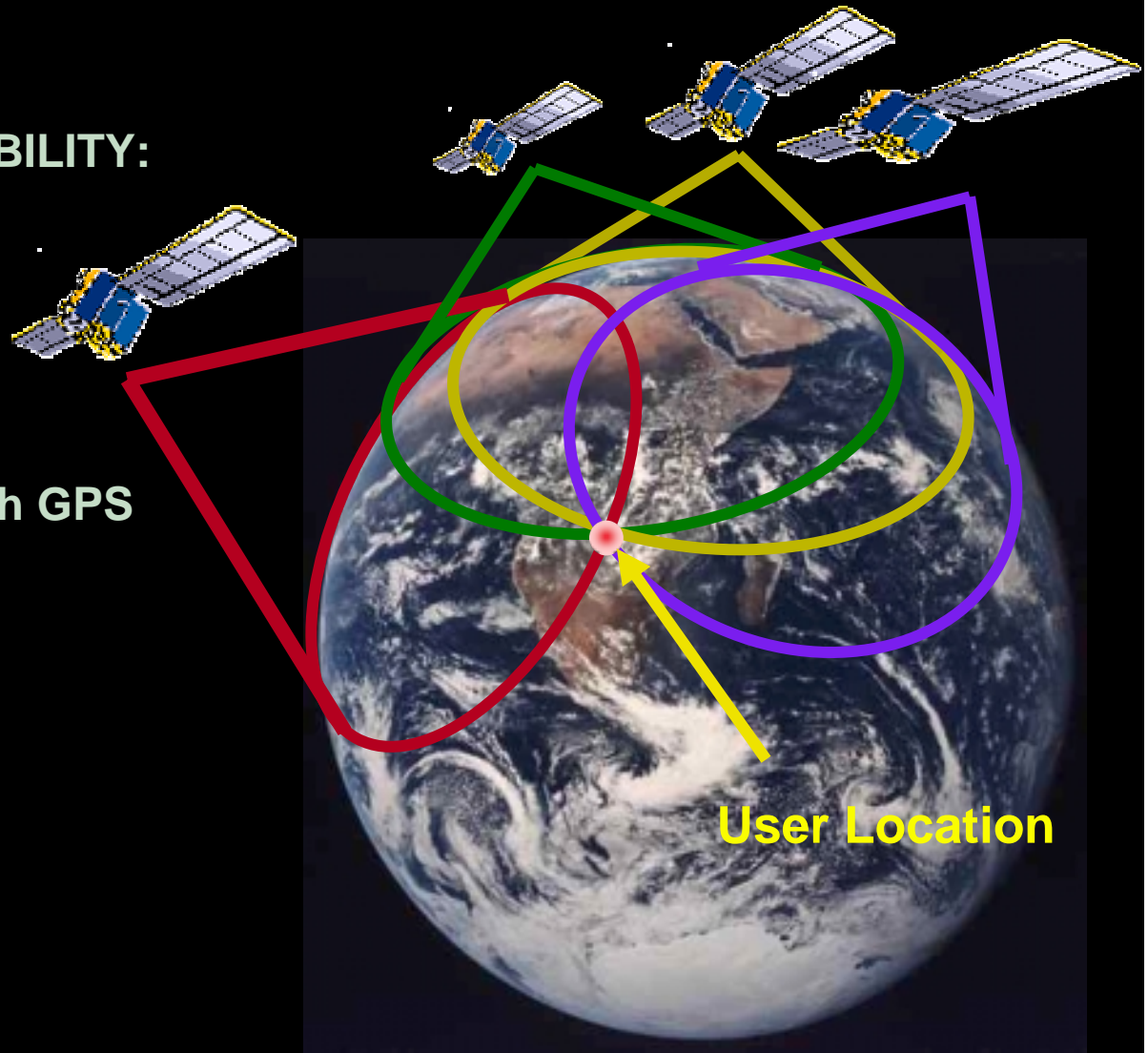
GALILEO TECHNICAL ASSETS



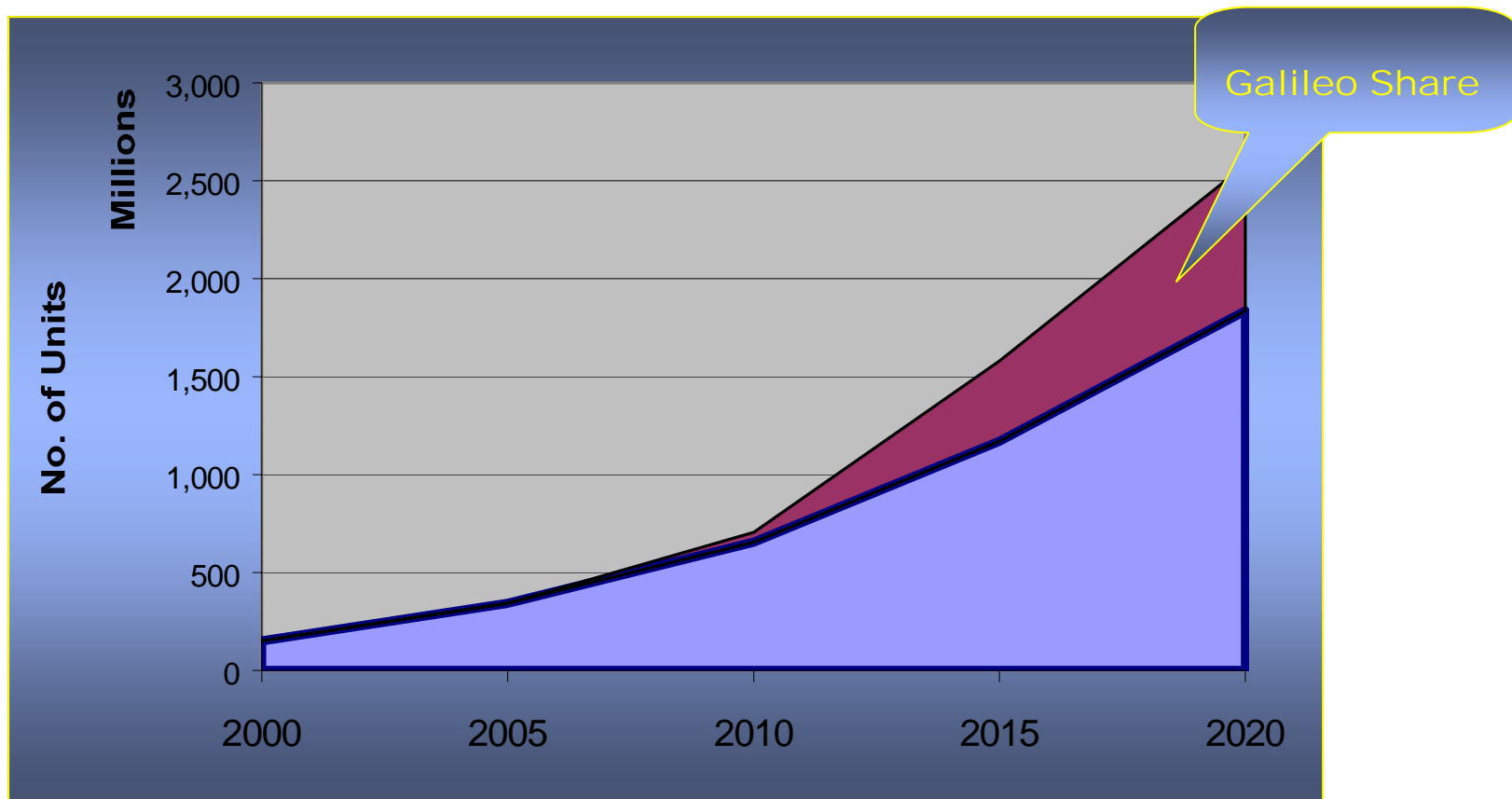
Galileo will offer optimum

PERFORMANCES and RELIABILITY:

- a high level redundancy with GPS (technical & political)
- integrity
- availability
- continuity of service
- accuracy
- security



GLOBAL GNSS MARKET SIZE

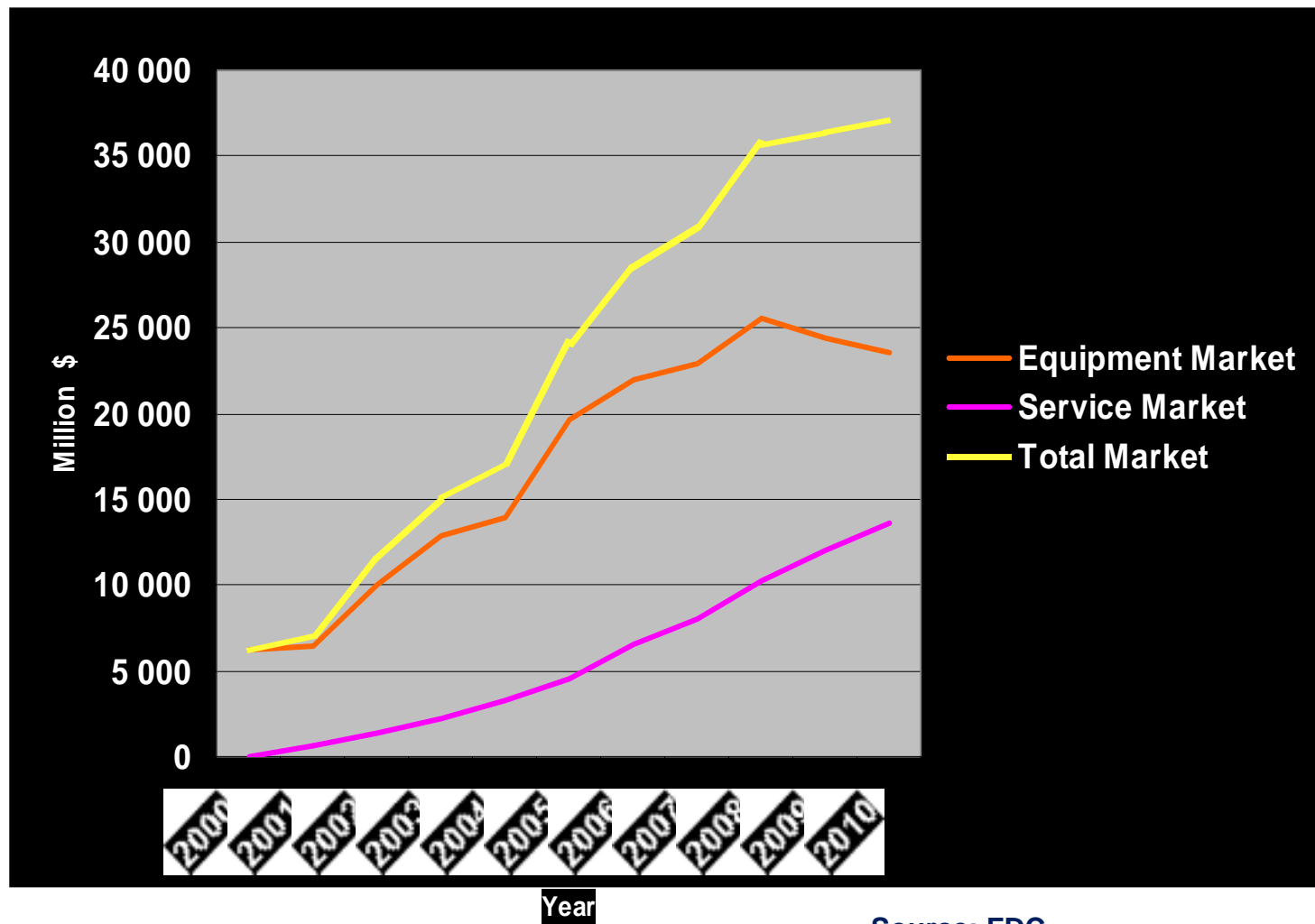


Source: EC Galileo Definition studies

EUROPEAN GNSS MARKET



REVENUES



Source: FDC

- Galileo Public-Private Partnership is creating a Market Pull rather than a Technology Driven system
- Galileo, as a European System, already motivated the European Industry to make up for lost time in Satellite Navigation market
- GALILEO will generate Brand-New Markets, in which European Industry is expecting to play a leading role
- Galileo will provide Global services, generating a Global Market,

 **Market optimisation requires inter-Region cooperation on both Institutional and Industry sides**

EUROPEAN INDUSTRY OFFER

- EU Industry is leading the world in many areas of technology



- EU Industry, through its active participation, is well aware of latest Galileo's infrastructure (signal and services) development
- It is capable of the complete range, from chipset design to manufacture, integration and certification of major systems and provision of innovative services

European industrial context



Mobile com.	Chipsets		LBS
Car navigation	Chipsets		Telematics
Fleet management	Chipsets		
Survey. and mapping	DGPS receivers		Augmentation
Aviation	Chipsets/receiver	FMS, GBAS	ATM services
Maritime	receivers		
Leisure	chipsets		
Agriculture	DGPS receivers		
Timing	DGPS receivers		
Road pricing	chipsets/receivers		
Rail	chipsets		
Market size	component	System integration	service



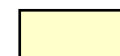
weak



mean



leader



Small or emergent market

Source: EC Musik project

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NEED FOR COOPERATION



- **European Industry is not yet strongly represented in all the continents**
- **Some industry skills are more developed elsewhere**
- **Cooperation is obviously the best way to increase cost efficiency and competitiveness of Industry**
- **This is true for Europe, and certainly true as well for China, and for the same reasons**
- **Combining our Competencies and our Markets, we would certainly increase both markets and generate huge benefits for both Regions and Industries**

CONCLUSIONS

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- Galileo will generate tremendous economic spin offs
- OREGIN has been created to back up Public efforts, with the ultimate objective to jointly pave the way to the success of Galileo
- Participation of the European Downstream Industry in the development of Galileo ensures the absolute efficiency of its Services
- European Industry of Equipment and Services has recognized skills and competencies and is experiencing a important increase of its turnover
- Cooperation between European and Chinese Industry is very promising and could generate huge mutual benefits
 - Complementary skills
 - Complementary markets
- OREGIN would be pleased to facilitate the creation of partnership and could, as of today, help Chinese industry to find their European partners

INFORMATION



CONTACT: info@oregin.net



www.oregin.net

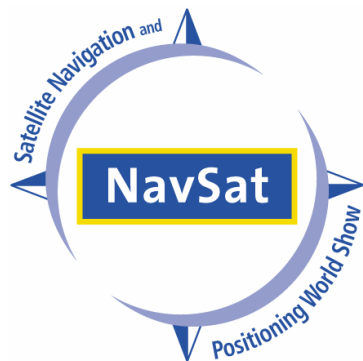
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MISCELLANEOUS



N2C and China Great Wall International organize jointly
the 5th International Space Technology and RS, GIS&GPS
Exhibition

Space 2003 - NavSat 2003
will be held from 21 to 24 November in Beijing

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