

ORganisation of European GNSS INdustry

Galileo Information Day Brazil 2 July 2004



WHAT IS OREGIN ?

WHAT IS OREGIN ?



The <u>ORganization of European Gnss</u> <u>IN</u>dustry 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



- More than 130 members including international industry organisations and national groups (close to 250 industrialists represented)
- Industries from 15 European countries
- From SMEs to biggest groups
- Associating Universities Research labs since 2003







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



Source: OREGIN Members websites





- 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 (1/4)



- · ACSA (FRANCE)
- · ADVANCED AVIATION TECHNOLOGY (UK)
- ADVETO AB (SWEDEN)
- · AERODATA F. (GERMANY)
- · AGROCOM (GERMANY)
- · ALCATEL/SEL (GERMANY)
- ALENIA (ITALY)
- · ALGONET (GREECE)
- · ALGOSYSTEMS (GREECE)
- ·ALL COMM (FRANCE)
- · ASTRIUM (UK)
- · BMW-AG (GERMANY)
- · BOMBARDIER TRANSPORTATION (GERMANY)
- $\cdot \, \textbf{CAA} \; (\text{GERMANY})$
- · 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)
- ·DIGIUTOPIKA (PORTUGAL)
- ·DORNIER CONSULTING (GERMANY)

- EADS (FRANCE)
- · EADS (GERMANY)
- · EDISOFT (PORTUGAL)
- · EGERY (FRANCE)
- · ELNA (GERMANY)
- · ERICSSON TELECOMUNICAZIONI (ITALY)
- ERTICO (INTERNATIONAL)
- · EURO-TELEMATIK (GERMANY)
- · EUTELSAT (INTERNATIONAL)
- · FASTRAX (FINLAND)
- · FAUCON ROBOTIQUE (FRANCE)
- · FDC (FRANCE)
- · FIAT (ITALY)
- · FINMEK SPACE (ITALY)
- · FUTURASPACE SARL (FRANCE)
- $\cdot \, \textbf{GPV TECHNOLOGICAL INOVATIONS} \, (\textbf{GREECE})$
- •Grupo GMV SA (SPAIN)
- · HELIOS TECHNOLOGY (UK)
- · HELLENIC AEROSPACE INDUSTRY (GREECE)
- · HIGH TECHNOLOGY ASSOCIATES (UK)
- HÖGEL & PARTNER (GERMANY)
- · IFEN (GERMANY)
- · IMEC (BELGIUM)

OREGIN MEMBERS LIST (2/4)



- · INDRA ESPACIO (SPAIN)
- · 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)
- · LOPOS TECHNOLOGIES (GERMANY)
- · M3 SYSTEMS (FRANCE)
- · MAN TECHNOLOGIE (GERMANY)
- · MANNESMANN VDO (GERMANY)
- · MARCOSOFT (ITALY)
- MLR Electronique (FRANCE)
- · MORS (FRANCE)
- · MUNICH ORIENTATION CONVENTION (GERMANY)
- · N2C (FRANCE)
- · NATIONAL PHYSICAL LABORATORY (UK)

- · NATS (UK)
- · NAVIGATION TECHNOLOGIES (BELGIUM)
- · NAVIONICS (ITALY)
- · NAVOCAP (FRANCE)
- NEMERIX (SWITZERLAND)
- · NEXANS (BELGIUM)
- · **NEXT** (ITALY)
- NOKIA (FINLAND)
- · NORDNAV TECHNOLOGIES (SWEDEN)
- · OMNISTAR BV (THE NETHERLANDS)
- · ORMSTON (UK)
- · PIONEER TECHNOLOGY (BELGIUM)
- · POLE STAR (FRANCE)
- · PRAXIS CRITICAL SYSTEM (UK)
- Q-SYSTEMS S.A.
- · RAYTHEON (UK)
- · ROBERT BOSCH (GERMANY)
- · ROKE MANOR RESEARCH (UK)
- · **SAGEM** (FRANCE)
- · SATCON (GERMANY)
- · SATPLAN (FRANCE)

OREGIN MEMBERS LIST (3/4)



- · SCHLUMBERGER SEMA (SPAIN)
- · SENA GPS (SPAIN)
- · SENER (SPAIN)
- · SEPTENTRIO (BELGIUM)
- · **SKEYE** (GERMANY)
- · SKYSOFT (PORTUGAL)
- · SOCRATEC (GERMANY)
- · SOCRATEC NAVSAT (SPAIN)
- · SPACECHAKER (BELGIUM)
- · SPACE SYSTEM FINLAND (FINLAND)
- · SPIRENT COMMUNICATIONS (UK)
- ST MICROELECTRNICS (UK)
- · STA (ITALY)
- · SURREY SATELLITE TECHNOLOGY (UK)
- · TECHNIUM (FRANCE)
- · TECHNOMAR (GERMANY)
- **TEKELEC Systèmes** (FRANCE)
- TELE ATLAS (BELGIUM)
- · TELECONSULT (AUSTRIA)
- ·TELEMATICA (GERMANY)
- · TELECONSULT (GERMANY)

- **TELESPAZIO** (ITALY)
- **TELIT** (ITALY)
- · TERRAFIX (UK)
- 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)
- · TTTC Ltd (HUNGARY)
- •TWENTE INSTITUTE FOR WIRELESS AND MOBILE COMMUNICATIONS (NETHERLANDS)
- · VITROCISET (ITALY)
- · **ZENITEL** (BELGIUM)





NATIONAL GNSS INDUSTRY ORGANIZATIONS

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

EUROPEAN UNIVERSITY RESEARCH CENTER

Centre for Communication Systems Research, University of Surrey (UK)
 GIS Research Centre, University of Glamorgan (UK)
 Institute of Engineering Surveying and Space Geodesy, University of Nottingham (UK)
 Lulea University of Technology (Sweden)

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



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on

Galileo will offer optimum

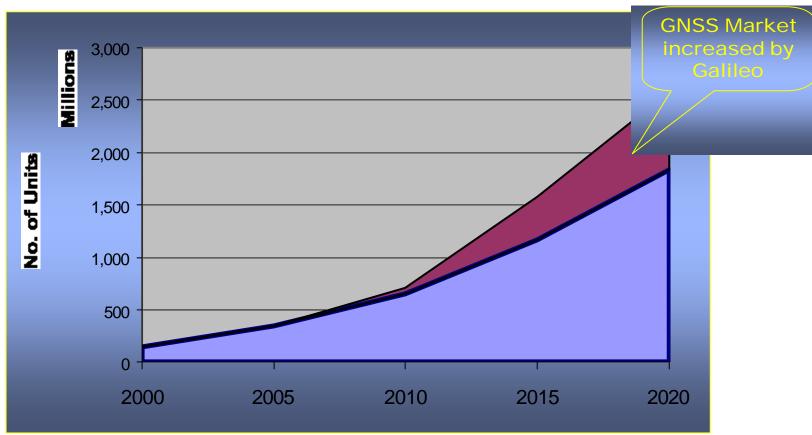
PERFORMANCES and RELIABILITY:

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

GALILEO MARKET



GLOBAL GNSS MARKET SIZE



Source: EC Galileo Definition studies

GALILEO ASSETS FOR INDUSTRY



- 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 provide Global services, generating Brand-New Markets around the World
 - Market optimisation requires inter-Region cooperation on both Institutional and Industry sides



EUROPEAN INDUSTRY OFFER

EUROPEAN INDUSTRY



• 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



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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	
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NEED FOR COOPERATION



- Cooperation is obviously the best way to increase cost efficiency and competitiveness of Industry
- Combining our Competencies and our Markets, is a key to increase both markets and generate huge benefits for both Regions and Industries
- Today, OREGIN can help you to find the European Partner you need, being the interface of national/regional organisation, or answering direct requirements from industrialists
- OREGIN proposes to extend its organisation to non European Industry, and to create the "OREGIN World" association with the support/leadership of non European Industry



CONCLUSIONS



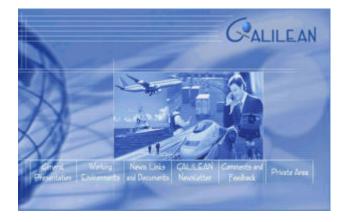
- OREGIN has been created to back up Public efforts, with the ultimate objective to jointly pave the way to the success of Galileo
- Cooperation between European and Brazilian Industry must be pursued and could generate huge mutual benefits
 - Combination of our skills
 - Complementary markets
- OREGIN would be pleased to facilitate the creation of partnerships and could, as of today, help Brazilian industry to find their European partners
- We would be happy to know your interest about the creation of an "OREGIN World"

INFORMATION





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