

WORKSHOP ON GNSS APPLICATIONS

**5th OREGIN Plenary meeting
Brussels, 1st December 2000**

AGENDA



10.00	Workshop introduction and objectives	OREGIN
10.20	The GALILEO Programme	EC
10.30	Towards the decision on GALILEO:	
	– Applications and Business Opportunities	EC
	– Mission Requirements (services)	EC
	– Baseline Architecture	
	• Space segment	ESA
	• Local elements	EC
	– GALILEO Implementation Schedule	EC
11.40	Coffee break	
11.55	EGNOS paves the Way	
	– EGNOS Implementation Schedule	ESA
	– EGNOS System Test Bed	ESA
	– Demonstrations accomplished so far	ESA
12.40	Lunch	

AGENDA



- 14.00 EC/ESA Proposal for Application and Service Developments**
 - Overall applications work plan 2001-2007 **EC**
- 14.20 Near Term Actions**
 - EC Tender Action 2001 **EC**
 - ESA Tender Actions 2000-2001 **ESA**
- 14.50 Views of (potential) user equipment manufacturers, service providers and users** **All**
- 15.30 Coffee break**
- 15.45 OREGIN session** **OREGIN**
 - Status of the initiative
 - Financing and projects
 - Communication and advertising actions
 - Any other business
- 17.15 Wrap up and conclusion** **OREGIN**
- 17.30 End of the meeting**

- **Welcome**
- **OREGIN background**
- **OREGIN members**
- **OREGIN missions objectives**
- **Workshop objectives**

WHAT IS OREGIN ?



The ORganization of European GNSS INdustry of equipment and services:

- **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**

- **Foundation meeting on 16 Feb. 99**
- **4 Plenary meetings**
- **Interest expressed by Institutions**
- **Interest expressed by equipment and service industry**
- **Interest expressed by Non European industry to cooperate (Japanese, US, Israel, Canada ...)**
- **Interest expressed by other players**
- **5th plenary meeting/Workshop with EC and ESA on 1 Dec. 2000**

MEMBERS



- ACSA (FRANCE)
- ADTRANZ (GERMANY)
- ADVANCED AVIATION TECHNOLOGY Ltd. (UNITED KINGDOM)
- ADVETO AB (SWEDEN)
- AERODATA F. (GERMANY)
- AGROCOM (GERMANY)
- AIRSYS ATM (GERMANY)
- ALCATEL/SEL (GERMANY)
- ALENIA (ITALY)
- BCI (FRANCE)
- BMW-AG (GERMANY)
- CAA (GERMANY)
- COM DEV Europe Ltd. (UNITED KINGDOM)
- CS Communication & Systèmes (FRANCE)
- DAIMLER CRYSLER GROUP (GERMANY)
- DSNP (FRANCE)
- DIGINEXT (FRANCE)
- EDISOFT (PORTUGAL)
- EGERY (FRANCE)
- ELNA (GERMANY)
- ERICSSON TELECOMUNICAZIONI (ITALY)
- ERTICO (INTERNATIONAL)
- EURO -TELEMATIK (GERMANY)
- EUTELSAT (INTERNATIONAL)
- FIAT (ITALY)
- GSS (UNITED KINGDOM)
- HELLENIC AEROSPACE INDUSTRY (GREECE)
- IMEC (BELGIUM)
- INDRA ESPACIO (SPAIN)
- INTECS SISTEMI (ITALY)
- MAN TECHNOLOGIE (GERMANY)
- MANNESMANN VDO (GERMANY)
- MARCOSOFT (ITALY)
- MLR (FRANCE)
- MORS (FRANCE)
- NAVIONICS (ITALY)
- NEXT S.p.A. (ITALY)
- NOKIA (FINLAND)
- OmniSTAR BV (THE NETHERLANDS)
- ORMSTON (UNITED KINGDOM)
- RACAL AVIONICS (UNITED KINGDOM)
- RACAL RESEARCH Ltd. (UNITED KINGDOM)
- RACAL TRACKS (UNITED KINGDOM)
- RAYTHEON (UNITED KINGDOM)
- ROBERT BOSCH GmbH (GERMANY)
- SAGEM (FRANCE)
- SAIT RADIOHOLLAND (BELGIUM)
- SATCON (GERMANY)
- SATPLAN (FRANCE)
- SEATEX (NORWAY)
- SEMA GROUP (SPAIN)
- SENA GPS (SPAIN)
- SENER (SPAIN)
- SEPTENTRIO (BELGIUM)
- SEXTANT (FRANCE)
- SKEYE (GERMANY)
- TCHIP SEMICONDUCTOR (SWITZERLAND)
- TECHNIUM (FRANCE)
- TELE ATLAS (BELGIUM)
- TELEMATICA (GERMANY)
- TELECONSULT (AUSTRIA)
- TELESPIAZIO (ITALY)
- TELIT (ITALY)
- TEMEX TELECOM (FRANCE)
- TERRAFIX (UNITED KINGDOM)
- THOMSON-CSF COMSYS (FRANCE)
- THOMSON-CSF AIRSYS (FRANCE)
- THOMSON-CSF DETEXIS (FRANCE)

EUROPEAN GNSS INDUSTRIAL ORGANIZATIONS

- AUSTRIAN INDUSTRY (ASA)
- SCANDINAVIAN INDUSTRY (SGIC)
- SPANISH INDUSTRY (Galileo Sistemas y Servicios)

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.**

- **To keep the industry informed of the latest evolution of the Galileo Programme (including EGNOS)**
- **To provide the first important opportunity for open interactive discussions between the Application Industry and the European Institutions**

- **To confirm the strong interest of the Application Industry to support the Galileo Programme**
- **To identify the necessary actions to support and promote the Application Industry competitiveness**
- **To contribute to the Galileo success story**

How to prepare a favourable environment for the development of Satellite Navigation Applications

What are the top ten actions which could foster to the European Application Industry access to market and promote its competitiveness:

- **funding?**
- **public laws?**
- **standardisation?**
- **creation of European centres of expertise/laboratories?**
- **political agreements and announcements?**
- **advertising and communication?**
- **start up creation/SME access to market?**
- **information and discussion?**
- **others ...**

FOREWORD

US examples are provided in the following slides. It is only to stimulate the debate, but these examples must not be considered as de facto “good examples” for Europe.

Europe has its particularities which could make such examples as not applicable for the European industry, or which could lead to the generation of far more appropriate and efficient solutions.

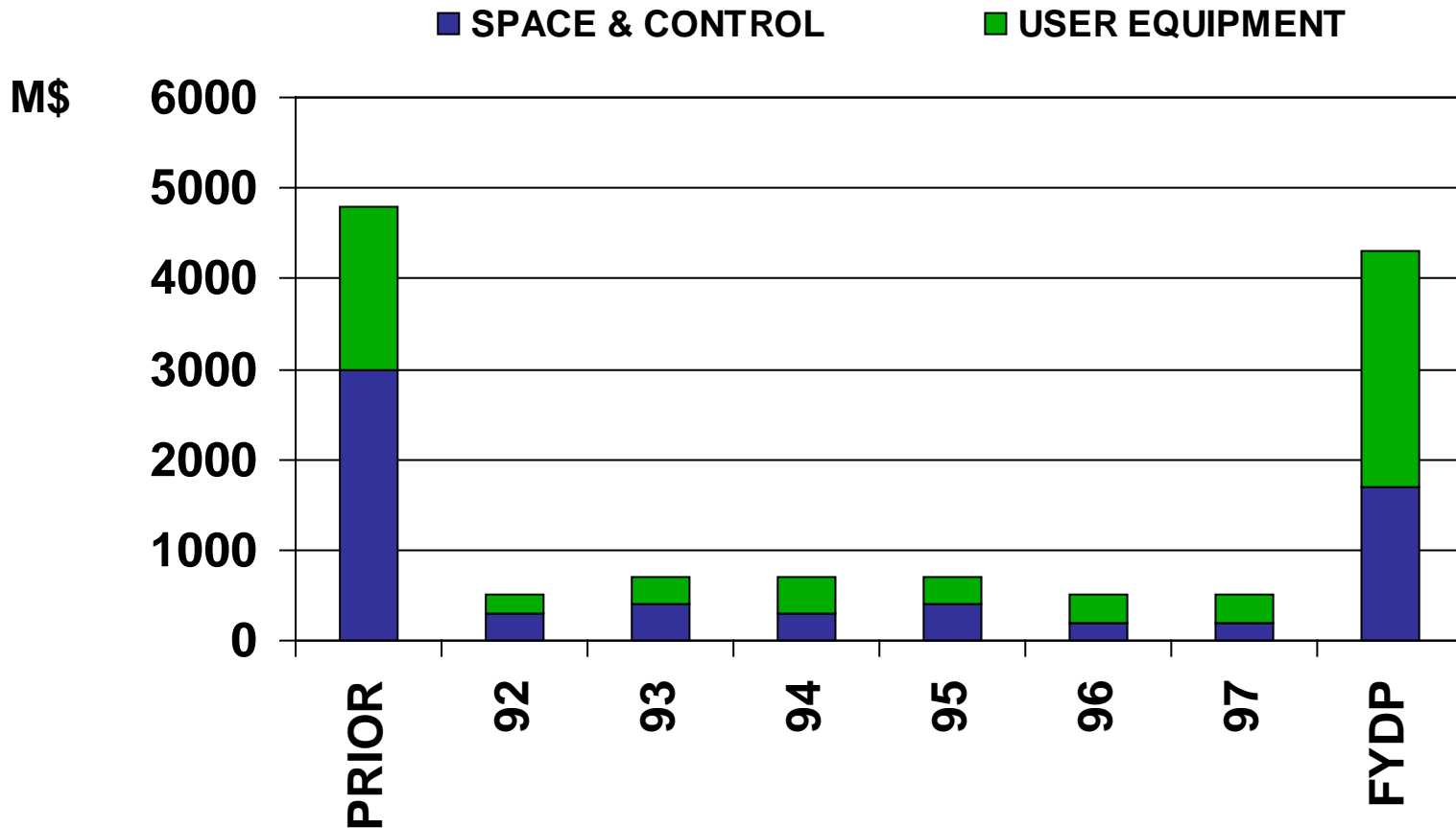
These examples do not intend to steer the discussion but only to break the ice.

FUNDING: GPS EXAMPLE



DoD Plans in 92

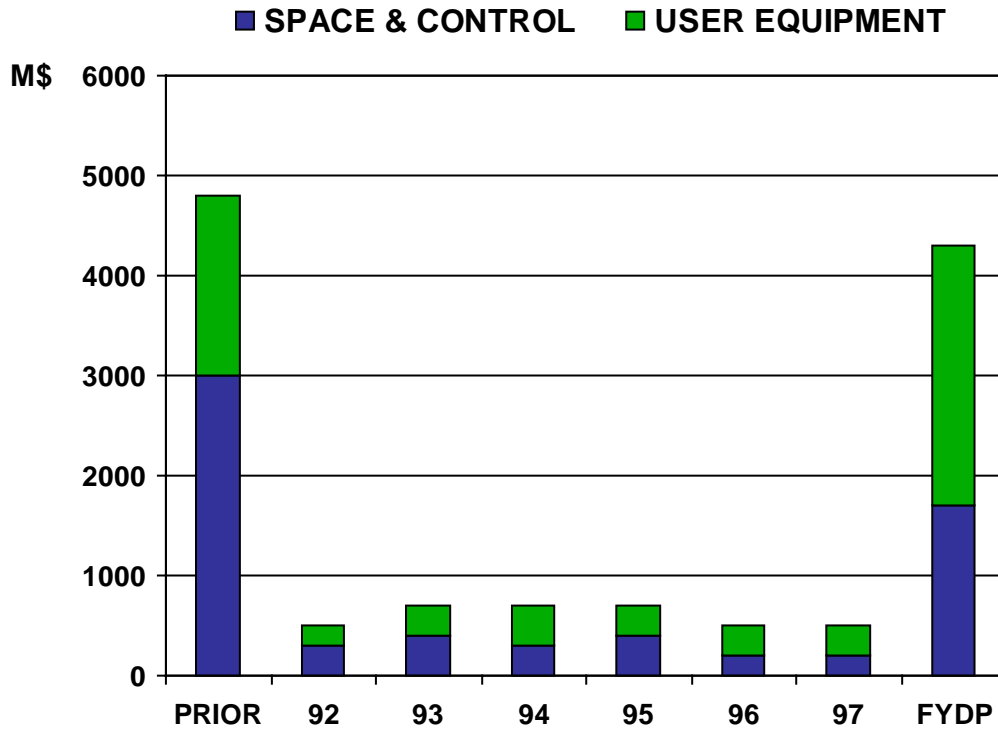
Total Programme = \$11.6 Billion



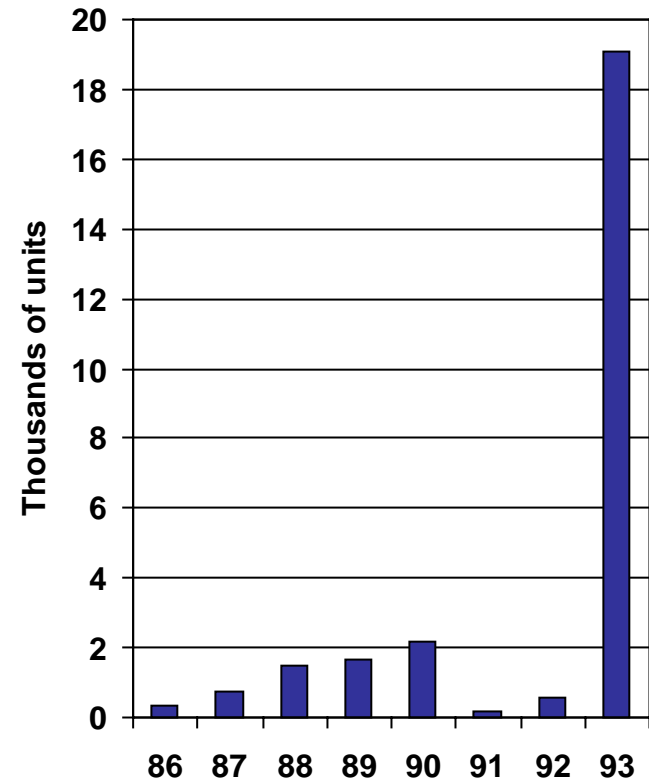
FUNDING: GPS EXAMPLE



DoD plans in 92



Actual procurement in 93



- **The US public law (n° 103-160 dated 30 Nov. 93) called “project 2000” urged on the US DoD to equip all military platform with GPS before the 30th Sep. 2000.**
- **The FCC mandate forces the introduction of a location capability in mobile communication systems (911 emergency calls).**

- **Safety, emergency, SAR**
- **Electronic tolling**
- **Tachograph, black box**
- **Surveillance**
- **Other ?**

The US industry is very often leading standardisation efforts.

They are usually able to develop equipment in parallel with standard, or to generate de facto standards providing them with an important advance for the market penetration.

What should the European industry do ?

How can the European institutions support them ?

POLITICAL AGREEMENTS AND ANNOUNCEMENTS



- **US President or Vice President makes press announcements and directives almost every year (IOC, SA, modernisation ...)**
- **An agreement has been signed between Japan and the US to promote their respective GPS equipments**

START UP CREATION SME ACCESS TO MARKET



- **Start up creation is easier in the US than in most of the European Countries**
- **In Japan, government support takes the form of wide access credits under very favourable conditions**

GPS EXAMPLE

- 3 symposiums a year
- Dedicated magazines
- Reports in news papers, magazine, TV news
- Others

CREATION OF EUROPEAN CENTERS OF EXPERTISE/LABORATORIES



Public facilities could support the test and validation of new products and services developed by industry

(e.g.: GPS user equipment test & validation Centre of expertise, SPAWAR...)

**Does such meeting need to be
regularly hold ?**

Other ?

OREGIN

5th Plenary meeting

- **70 members including international industry organisations and national groups**
- **Industries from 14 countries**
- **Pressure from non European Groups having small subsidiaries in Europe to be involved and informed**
- ➔ **Urgent to define accurate eligibility criteria for the selection of OREGIN member**

Philosophy:

- **no subscription fees**
- **no annual fees**
- **members accept to provide time, travel expenses and support**
- **sponsoring members accept to participate to general expenses (up to 1000 Euros)**
- **looking for funding from Institutions**

2000 BUDGET AND EXPENSES



Budget 2000: €2 000 (DSNP and SEATEX)

<u>Expenses:</u>	<u>Costs</u>	<u>Funded by</u>
GNSS 2000:	€3 000	OREGIN
Brochure:	€2 000	OREGIN
Workshop:	€1 000	FDC or OREGIN
Logos (OREGIN/OREGIN Member):	€2 000	FDC
Posters:	€1 600	SEXTANT and FDC
Co-ordination:	250 hours	FDC
Travel Expenses (co-ordination):	€2 000	FDC
Other Travel Expenses:	€100 000	All



Sponsors and in kind contributions are welcomed

GENESIS:

To provide the EC with support to monitor all GNSS related activities through the setting up of a structured network of institutional partners and on request experts



www.genesis-office.org

- Galileo Newsletter free subscription
- Expert database registration

GUST:

To provide the EC with support on user segment issues

OTHER PROJECTS



- **Galileo Overall Architecture Definition** **GALA**
- **EGNOS Integration into Galileo** **INTEG**
- **Support to Galileo Standardization Process** **SAGA**
- **Galileo Service Definition** **GEMINUS**

GALILEAN (GALILEo Application Network)

The GALILEAN thematic network will create an open dynamic network of industrialists, organisations and authorities with the general objective to :

- share data and information to increase the knowledge base on the Galileo system,**
- create synergies and encourage standardisation in European research efforts related to Galileo applications,**
- encourage the creation of advanced services,**
- increase acceptance of the satellite navigation industry and obtain stronger support from transport policy,**
- increase the awareness and the attractiveness of Galileo towards all user groups**
- develop recommendations for industry, operators, administrations and policy makers,**
- outline a concise roadmap to promote Galileo applications on European and international levels.**



PROPOSAL CURRENTLY UNDER EVALUATION

TELEMATICA is willing to propose to the EC the development of a European RadioNavigation Plan.

A ERNP can :

- **take care of Industry/user constraints**
- **support marketing and lobbying**
- **stimulate the development of new systems, services or products**

OREGIN can participate in :

- **mapping user needs**
- **providing the technical details on the systems and equipment**
- **studying systems/services enhancement or next generation**
- **others (e.g. cost/benefit, organization...)**


A ERNP should include information on all private system and services

Last important events :

- | | |
|---------------------------------------|----------------------------|
| • GNSS 2000 (Edinburgh - may 2000) | OREGIN Booth, brochures |
| • NAVSAT (Paris - jun 2000) | Brochures (members booths) |
| • ION GPS (Salt Lake City - sep 2000) | Brochures (members booths) |
| • ERNP (Weihenstephan - oct 2000) | Presentation, brochures |

Planned events :

- | | |
|---|-----------------------------|
| • 3rd ASIA PACIFIC Symp. (Tokyo - feb 2001) | Presentation, brochures |
| • GNSS 2001 (Seville - may 2001) | OREGIN Booth, brochures? |
| • ION GPS (Albuquerque - sep 2001) | Brochures (members booths)? |
| • NAVSAT 2001 (Nice - nov 2001) | Brochures (members booths)? |
| • Others? | |

- **A Web site is necessary**
- **Brochures have to be completed**
(some industry fiches are missing)
- **Several articles were fully dedicated to or mentioned OREGIN**
(Galileo Newsletter, Galileo World, GPS World, GPS World Newsletter, Air&Space, national publications...)
- **A press release and/or a letter to the EC and ESA should be drafted**
after this workshop
- **The logo**  **is used (should be used by everybody)**

ANY OTHER BUSINESS

WRAP UP