



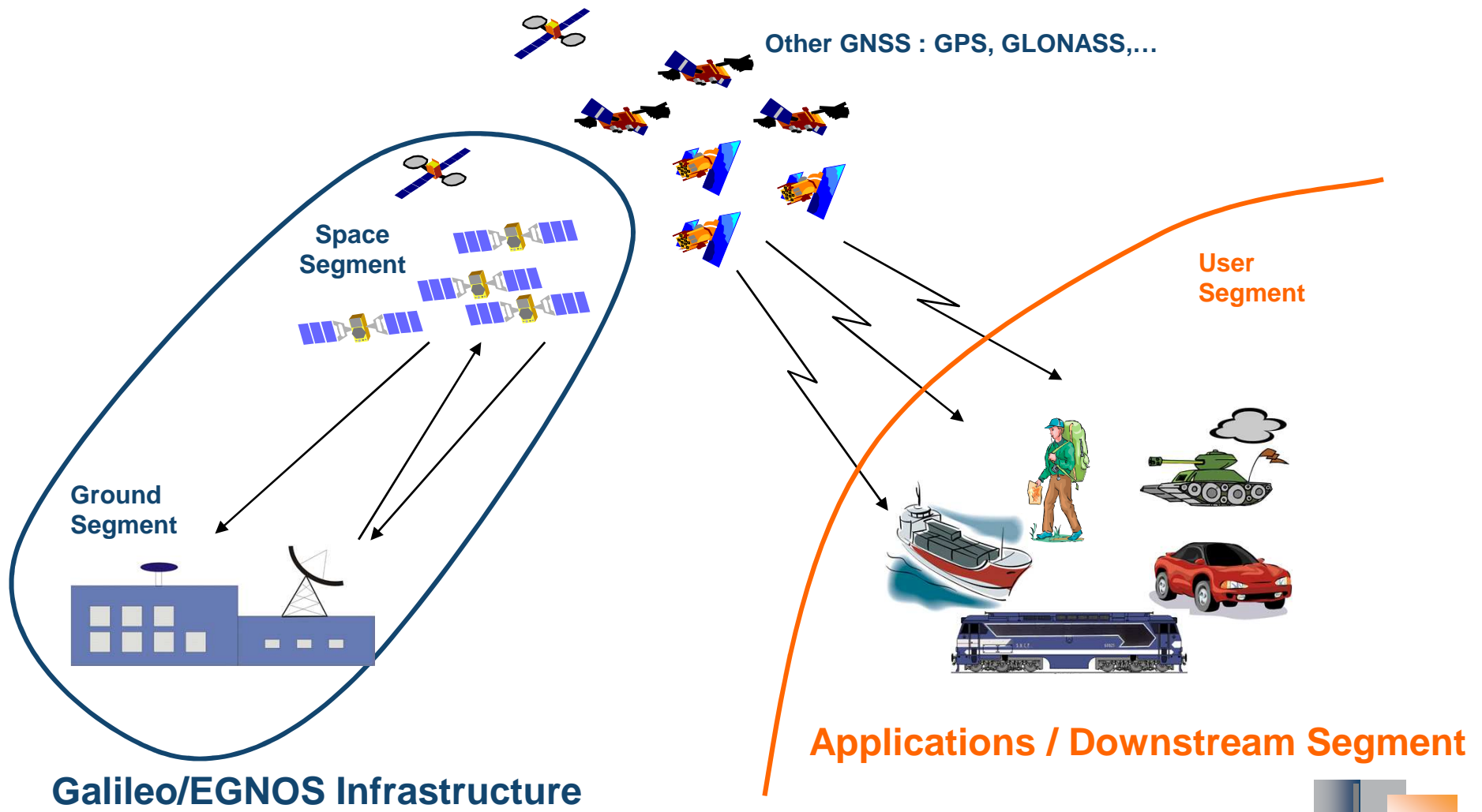
**Introduction to
Satellite Navigation
Applications**

Eurisy Conference

**23rd November 2011,
Warsaw, Poland**



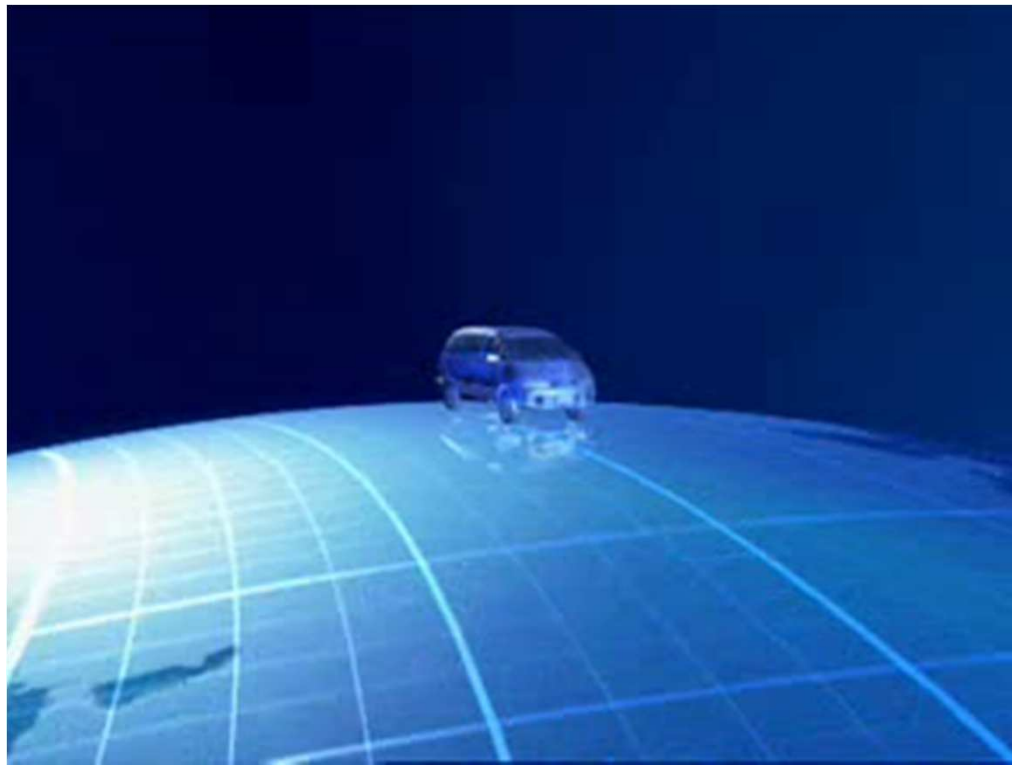
Focus: GNSS Downstream Segment Applications, Services, Equipments



Introduction to GNSS



The basic principle underpinning satellite positioning is the use of distance measurements at a precise moment in time T between a receiver and several satellites whose exact positions in space are known.



Information delivered
=
Position, Velocity and
Time

Source ESA



GNSS Application Examples (1/6)

Systems and applications dedicated to car navigation

- Includes: PND, integrated equipment (OE) and applications for car navigation - Smartphone



GNSS Application Examples (2/6)



- Transport: safety and efficiency increase for aviation, maritime and inland waterways, rail, road transport...



- Mobility: Navigation, Road tolling, Location Based Services, multi-modal transport services...

GNSS Application Examples (3/6)

- Health : Tracking & Tracing on medical goods (organs, blood...), Assistance of elderly and disabled people



- Agriculture : Livestock Management, Precision Agriculture (steering guidance, farm logistics)



GNSS Application Examples (4/6)



- Environment protection: low cost sensors for landscape monitoring, Land monitoring and Land Administration through Surveying and Mapping, support to Ecologic Driving...



- Security and Safety: protection of IPRs, secure asset and person tracking, Customs and Freight monitoring, coordination of emergency team, Lone worker protection...

GNSS Application Examples (5/6)

- Asset tracking: Inventory control, efficient utilization of equipment, fleet management...



- Pet, Gadget and Toy tracking: Track all kinds of consumer items – service already provided by Apple for their phones...



GNSS Application Examples (6/6)



- Telecom Systems: Timing, synchronisation, transactions, tagging, maintenance...



- Power Grids: Synchronisation, maintenance, Smart Grids...

Galileo Services Overview (1/2)



- >• Non-profit Making Association
 - aiming at developing, promoting and maximizing the potential of the GNSS applications' market

- >• Missions:
 - Voice Industry concerns & expectations toward the institutions
 - Share market experience and knowledge of user needs
 - Support the implementation of the European GNSS Programmes

Galileo Services Overview (2/2)



- Comprising key GNSS Downstream Industry players

- Members Profile:
 - Representing all elements of the value chain
 - ➔ Chip producers, equipment manufacturers, software developers, data content and map providers, service providers, integrators, etc.

 - Covering the different application sectors
 - ➔ Aviation, Maritime, Rail, Road, Intermodal, Leisure, Scientific, Agriculture, etc.

 - Experienced in all kind of applications
 - ➔ Safety of Life, Governmental, Professional, Mass Markets

Galileo Services Overview (2/2)



Backing on



Network (160 Members – 20 countries)

- ***Thank you very much for your attention***

- ***We would be delighted to provide you with any information you may need***
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