

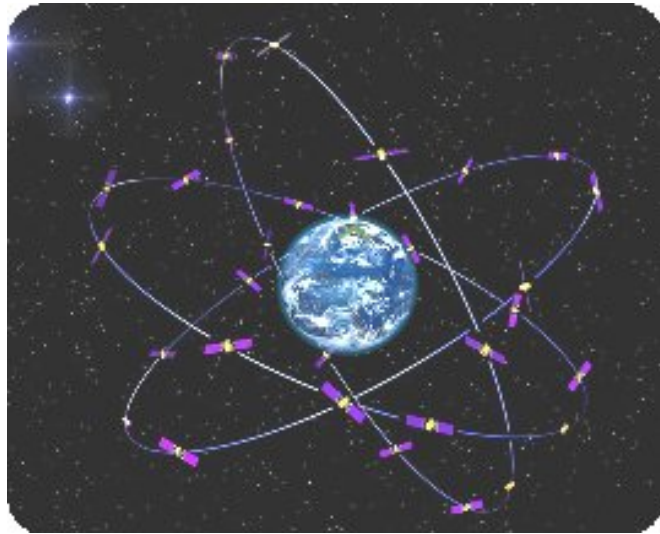


GNSS Introduction in the ROAD Sector

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GALILEO, an enabler of European Transport Policy (1/6)



- The GALILEO system:
 - 30 satellites in three planes over Medium Earth Orbit
 - 4 levels of navigation services:
 - Open Service
 - Safety of Life Service
 - Commercial Service
 - Public Regulated Service

- The GALILEO programme is quickly becoming a reality
 - EGNOS signal available since mid-2005
 - First test satellite (GIOVE-A) launched in December 2005
 - Concession awarded to joint EURELY-INAVSAT consortium (contract negotiations through 2006)
 - Partnership agreements signed with China, India, South Korea, Latin America, etc.



GALILEO, an enabler of European Transport Policy (2/6)

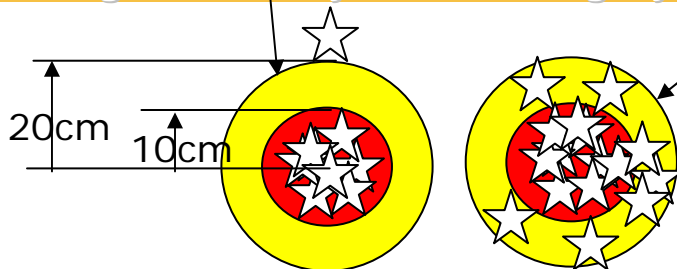
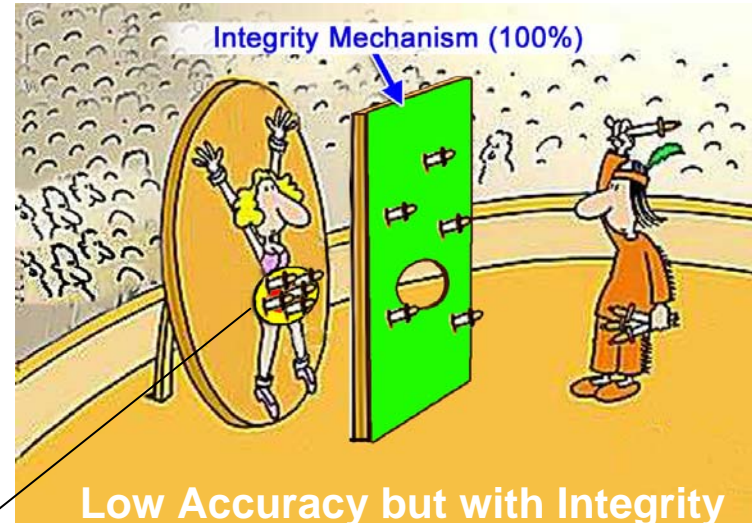
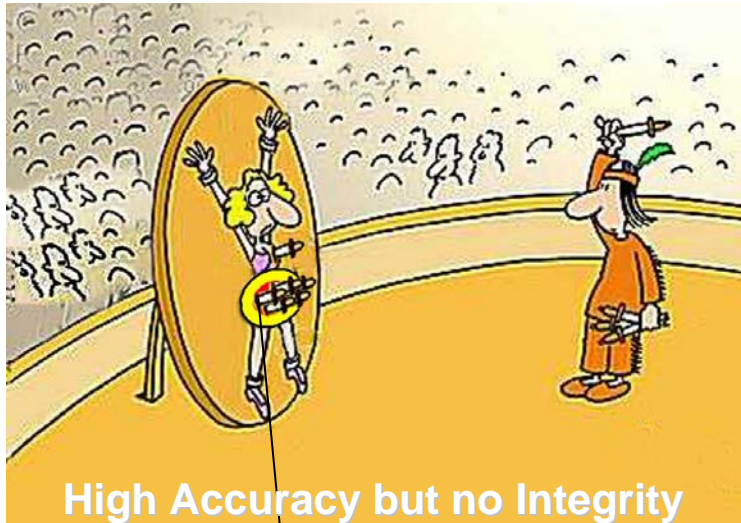
- Shortcomings of GPS:
 - Not designed as a civilian system
 - No contractual operator
 - Only 1 signal for civil users
 - Performance levels that make it unsuitable for numerous commercial and safety of life applications
 - No service warranty
 - No signal integrity

- GPS and GALILEO are not designed as competing systems. The combined GPS-GALILEO coverage will ensure better positioning accuracy for dual receivers.



GALILEO, an enabler of European Transport Policy (3/6)

- Integrity & accuracy:



8 cm	18 cm
99 %	100 %

Accuracy (e.g. error at 95%)

Integrity (percentage inside the yellow circle)



GALILEO, an enabler of European Transport Policy (4/6)

- EGNOS and GALILEO are recognised by many specialists as an important component of the global answer to the challenges raised by increased private and freight transport demand:
 - Achieving a significant and lasting decrease in road injuries & fatalities
 - Identifying stable mechanisms of funding for road improvement
 - Eradicating congestion & curbing pollution
- Europe's satellite programme offers integrity and accuracy improvements allowing the development of new applications to optimise personal mobility.
- **GALILEO has the potential to become a key enabler of European and national transport policies.**



GALILEO, an enabler of European Transport Policy (5/6)

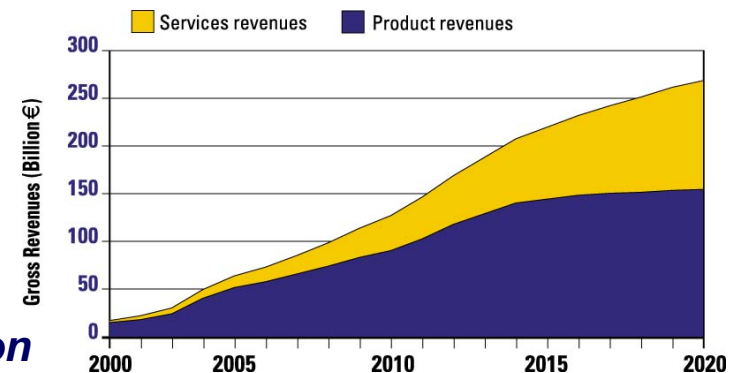
- The key challenge for GALILEO is to bridge the gap between technological pilot services and mass-market take-up by road transport users.
- This can be achieved by:
 - Extending message outside usual arena of specialists
 - Going back to the basics:
 - ⊙ understand user requirements and doubts
 - ⊙ recognise that there are competing technologies: If GPS or licence plate recognition work, why do you need more ?
 - ⊙ If it did not work with GPS, why should it work with GALILEO ?
 - Concentrating on key GALILEO differentiators



GALILEO, an enabler of European Transport Policy (6/6)

- Some figures to bear in mind:
 - Passenger car fleet in 2004
 - 650 million vehicles worldwide
 - 160 million in EU-25
 - Penetration rate of GNSS units in new cars in Europe:
 - 2004: 10%
 - 2010: 50%
 - Global market for GNSS products & services could be worth EUR 275 bn annually by 2020 contributing to 140,000 jobs

Source: European Commission





GIROADS in a Nutshell (1/6)

- 24-month project co-funded by Galileo Joint Undertaking (GJU) beginning September 2005
- GIROADS aims to facilitate the introduction of GNSS (EGNOS&GALILEO) in the road sector by:
 - identifying all potential GNSS applications in the road sector,
 - evaluating their market potential and proposing a successful commercial model,
 - assessing their impact on existing European norms & legislation
 - establishing a technical platform providing support to all planned services,
 - field-testing the platform on high-potential applications:
 - Electronic fee collection & Congestion charging,
 - Traffic information services,
 - Pay-per-use insurance
 - raising awareness of the tangible benefits of GNSS,
 - establishing recommendations facilitating take-up of GNSS applications in the road sector.



GIROADS in a Nutshell (2/6)



- All major segments of the road/GNSS value chains represented
- 8 countries (including China) with agreements extending worldwide



GIROADS in a Nutshell (3/6)

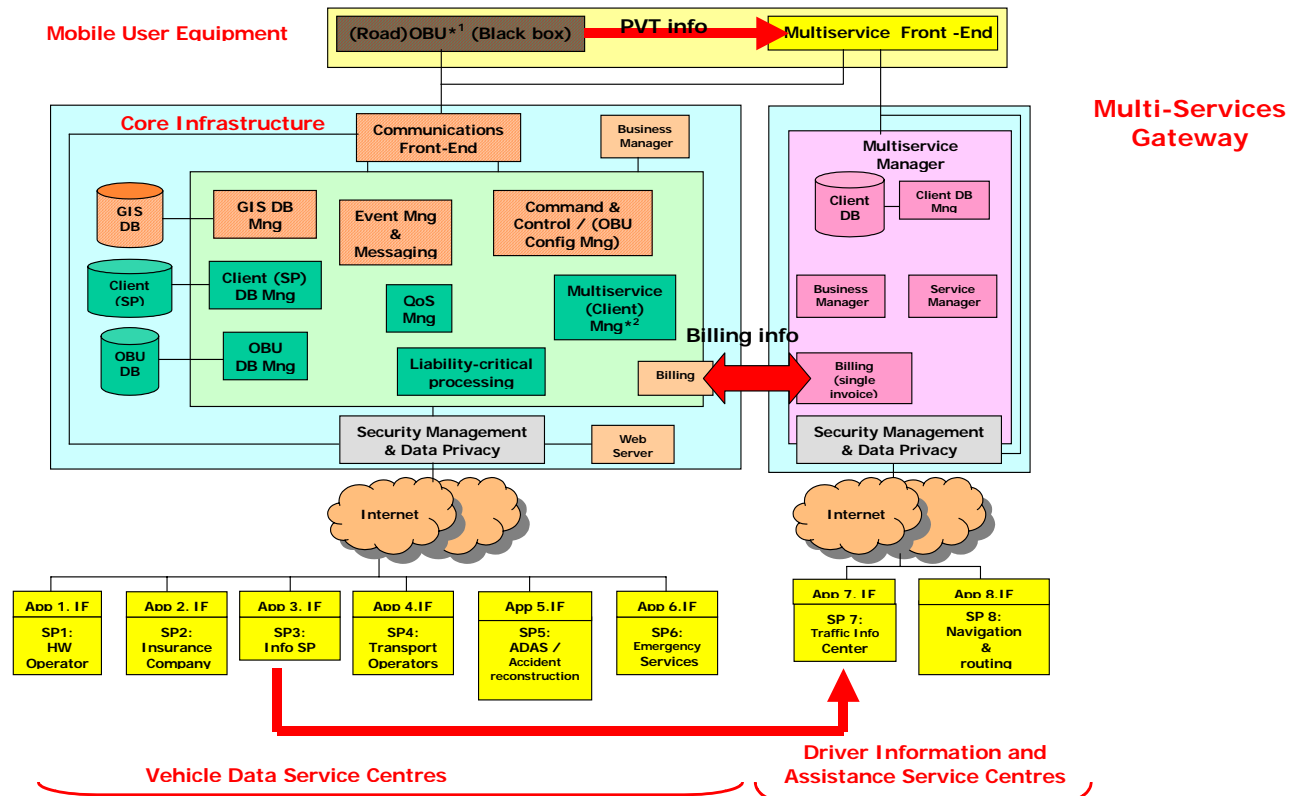
- An objective shared by all 31 consortium members : to achieve a shared understanding of the relevance of GALILEO to the everyday needs of the road transport sector

- GIROADS will establish a platform that is
 - Independent
 - Open
 - Market-oriented
 - Global

- « Not another ITS project »:
 - focus on the most differentiating aspect of GNSS application
 - optimal re-use of technological heritage
 - One OBU – Multiple services concept



GIROADS in a Nutshell (4/6)



- Common platform providing support to all planned services
- Huge technological heritage (VeRT, ADVANTIS, SCORE)



GIROADS in a Nutshell (5/6)

Interfacing with the road community:

- GIROADS must promote a permanent dialogue with all GNSS & road sector stakeholders
- GIROADS needs to confront and adapt its assumptions and results face to the reality of each group of potential users
- GIROADS must reach out well beyond existing ITS communities: the GIROADS Club





GIROADS in a Nutshell (6/6)

Dedicated services:

- Dedicated e-newsletter: « Intelligent Roads »
- Regular Executive Briefings
- Online information portal: www.intelligentroads.org
- Extranet : www.intelligentroads.org + login
- Workshops & infodays
- Opportunity to contribute to project output (surveys, etc.)

How to join?

- Open to all via on-line registration (possible at GIROADS stand)
- Regulated by terms of Reference (available from GIROADS web site)
- > 60 Members have already joined the Club representing a wide diversity of end-users



Thank You for Your Attention!



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