User Segment Development

Receiver and Applications

Vincent Gabaglio
Technical Division
Galileo Joint Undertaking
Galileo space and ground segment

- Galileo infrastructure
  - Space segment
  - Ground segment

- Launch of GIOVE A: 28th December 2005
- In-Orbit Validation

- Products delivered by the infrastructure are SIGNALS
The users are interested by SERVICES

The Galileo USER SEGMENT is defined as the segment that translates the SIGNALS into SERVICES for the final users

The USER SEGMENT is composed by
- Technologies (receiver, local element, ...)
- Added-value services (combined with communication, mapping, pricing services)
- User Applications
The development of the 4 first Satellites and Ground segment (i.e. infrastructure) **Budget: 1’500 M€**

The development of the User segment
**Budget: 110 M€ at EU level (6thFP) + 7thFP + national budgets and regional budgets**

The development of the USER SEGMENT is of paramount importance for the success of Galileo:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Value added services</th>
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<tbody>
<tr>
<td>Signal operator</td>
<td>~30 B€</td>
</tr>
<tr>
<td>Component segment</td>
<td>~50 B€</td>
</tr>
<tr>
<td>System integration segment</td>
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<td>Service provider segment</td>
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<table>
<thead>
<tr>
<th>Segment</th>
<th>Revenues:</th>
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<tbody>
<tr>
<td>GOC</td>
<td>0.4 B€</td>
</tr>
<tr>
<td>Chipset</td>
<td>1 B€</td>
</tr>
<tr>
<td>Antennas</td>
<td></td>
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<tr>
<td>Product equipment</td>
<td></td>
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<tr>
<td>Equipment</td>
<td></td>
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Annual figures for 2015
Galileo R&D activities – Workshop Tools and Facilities – 23rd March 2006
GJU has launched more than 60 projects (including SMEs) dedicated to the development of the User Segment for an overall budget of 170 M€ (110M€ financed by GJU)

More than 300 companies (including a large number of SME’s) are now involved in the Galileo R&D activities financed by the GJU

280 equivalent full-time persons are continuously working in these projects
Objective: introduction of EGNOS and Galileo services in the different user communities.

Project dealing with
- Technical feasibility (using EGNOS)
- Service prototyping
- Market analysis
- Standardisation
- ...

The following user community are addressed:
LBS, Road, Maritime, Aviation, Rail, Multimodal, Scientific, Agriculture, Oil & Gas, Emergency services, time & synchronisation...
Objective: foster the R&D activities in the receiver domain, create the good environment for availability of highly competitive commercial receiver before IOV

1st call: Development of core technologies, of tools and of a first receiver prototype

2nd call: support to the development of commercially oriented receivers: 3 mass market receiver contracts, 2 professional receiver contracts, 1 safety of life contract and several SME activities.

The early development of Galileo receiver requires the availability of appropriate tools and facilities
Workshop objectives

This workshop shall be a platform to

- **Receiver developers and manufacturers**
  "Express the needs and requirements for development, testing and validation tools"

- **Tools developers:**
  "Present the status and development perspectives of their tools"

*It shall allow the participants to examine the different possibilities, finding appropriate partnership for their development, identifying future needs and fostering networking of tools and facilities.*
Many thanks

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