



GST – An End-to-End Architecture for Automotive Telematics

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Starting Point

- Telematics = 2-way connectivity between an end-user and a service provider
 - To perform services
 - Active and passive safety, security
 - Car maintenance
 - Traffic information and management
 - Travel assistance, touristic informations
 - Fleet management, professional services
 - Entertainment and shopping information
 - To download new services
- GST
 - Common specification (standards)
 - Common business model

Ecosystem



Outline

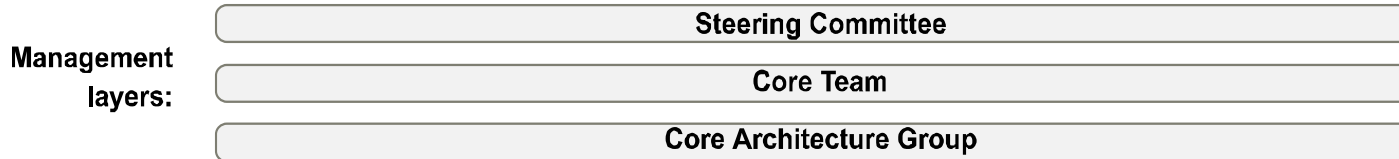
- Basic Project Info
- Need for Change
- Goals
- Challenges
- Market Drivers

At a Glance

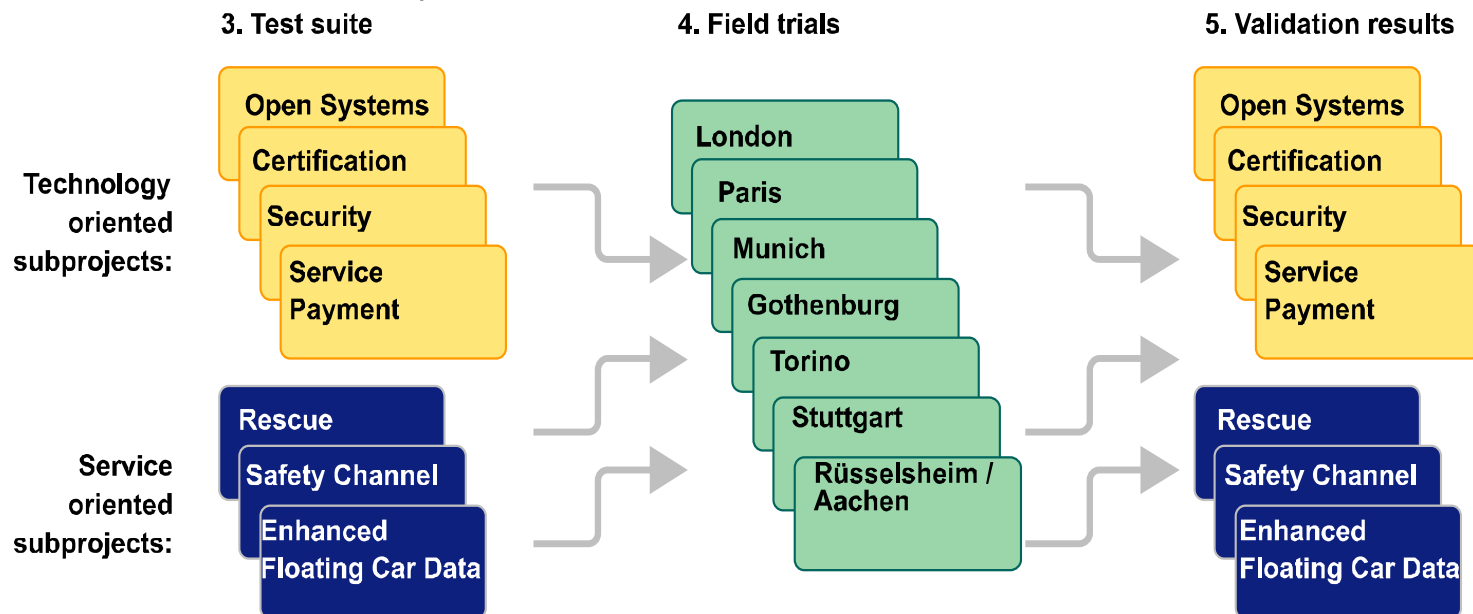
- Integrated Project
- Goal: An open market for telematics services
- Chairman: Renault, Vice-chairman: BMW, Coordinator/Manager: ERTICO
- Start: March 2004, end: February 2007 (36 months)
- Total budget: 21,5 M€, EC contribution: 11 M€
- 49 partners

ADSE, ALLIANZ, AVE, BMW, BOSCH, DAIMLERCHRYSLER, EBU, ERTICO, FIAT CRF, FORD, FRANCE TELECOM, GATESPACE, GEWI, ISMB, KREIS OFFENBACH, KU LEUVEN, MECEL, MIZAR, MOTOROLA, NAVTECH, OPEL, ORANGE, PENDRAGON, PMI, PROSYST, PTV, Q-FREE, RENAULT, RSA, SES GLOBAL, SIEMENS VDO, SNRA, SUSSEX POLICE, TDF, TUM, TELCORDIA, TELE ATLAS, TELECOM ITALIA, TELEMATICS CLUSTER, TELMACON, TNO, TRIALOG, TRUSTED LOGIC, T-SYSTEMS, TUV, VIALIS, VIKTORIA INSTITUTE, VOLVO, WIRELESS CAR

Organisation



- Key results:
1. Architecture & Interface specifications
 2. Reference implementation
 3. Test suite



Forum Website – www.gstforum.org

The screenshot shows two overlapping Microsoft Internet Explorer windows. The background window is titled "Global Systems For Telematics Workflow - Microsoft Internet Explorer provided by ERTICO" and shows a page with a "Tools" section containing links for "OCI*", "CORE*", "GST Public website", and a "Done" status bar. The foreground window is titled "GST :: Home - Microsoft Internet Explorer provided by ERTICO" and displays the main website. The website features a search bar, a navigation menu with links for "About GST", "GST Forum", "Downloads", "7 sub-projects", "7 Test Sites", "Partners", and "Links", and a main content area with a "Welcome to GST!" section and an "Events" section listing a "GST requirements Workshop" on 7-8 September 2004 in Brussels.

Global Systems For Telematics Workflow - Microsoft Internet Explorer provided by ERTICO

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home

Address <http://www.gstforum.org/>

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SEARCH: GO

Device upgrades
telematics services to the market, enhancing

Mobility Intelligence Communication abilities

About GST GST Forum Downloads 7 sub-projects 7 Test Sites Partners Links

Welcome to GST!

GST is an EU-funded Integrated Project that is creating an open and standardized end-to-end architecture for automotive telematics services. The purpose of GST is to create an environment in which innovative telematics services can be developed and delivered cost-effectively, and hence to increase the range of economic telematics services available to manufacturers and consumers.

[Read more](#)

Events

GST requirements Workshop
7-8 September 2004
Brussels

[Download workshop preparation documents](#)

start

start

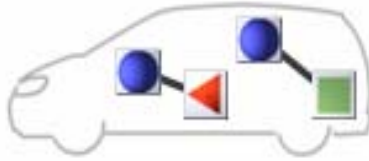
Need for Change

First Generation until 1998



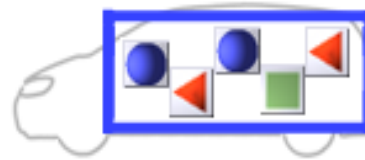
- 1.** Stand alone, noncompatible devices, e.g.
- Radio
 - Phone

Second Generation 1998 – 2002



- 2.** Combined technologies. Functionality linked and limited to proprietary service center, e.g.
- Phone system with GPS

Third Generation 2002 Open Systems



- 3.** Core element of future-proof telecommunication & information systems is the open computer platform. Applications & services are software modules downloaded onto open platform. Driver subscribes to ever growing offering of third party services e.g.
- PC - Internet like approach

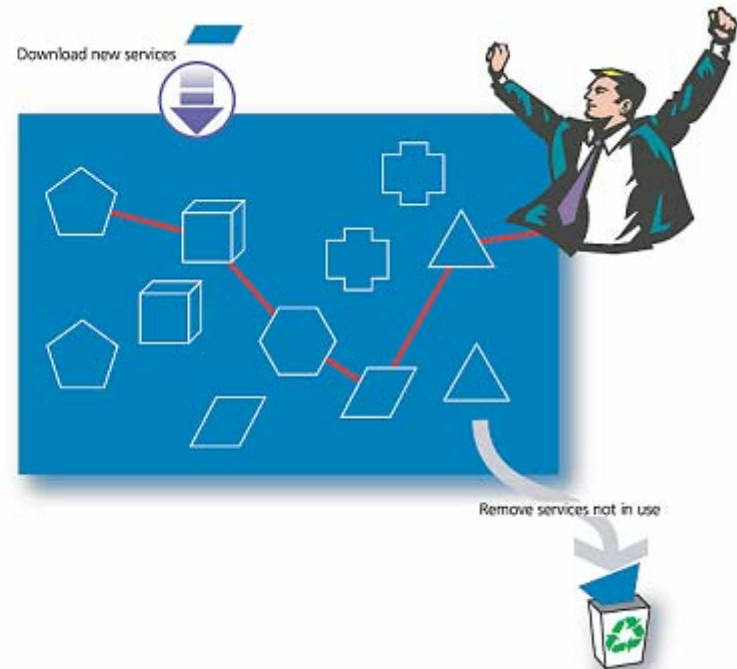
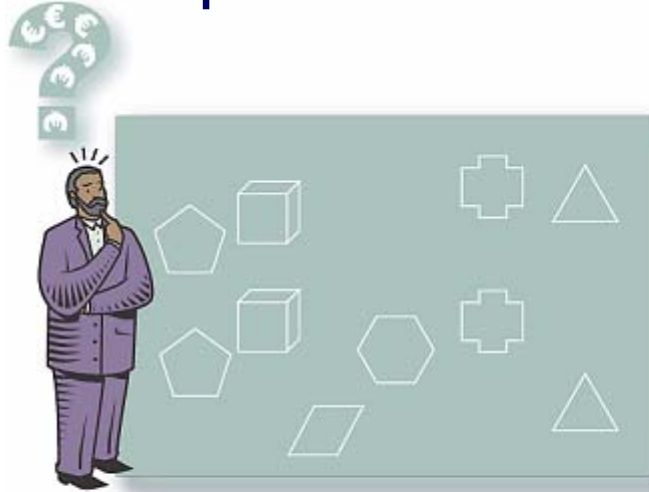
New ERA



- 4.** Open Systems and Markets with Interoperable Components

Benefits

- Solution to the lifecycle problem
- Importance of personalised mixes of services
- Support for Europe's regional differences
- Public-private « win-win's »



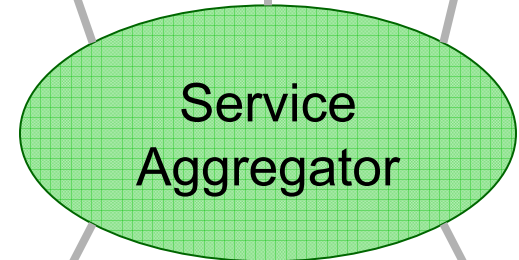
Service Aggregator – the Central Role

Seeks to deliver services to all users

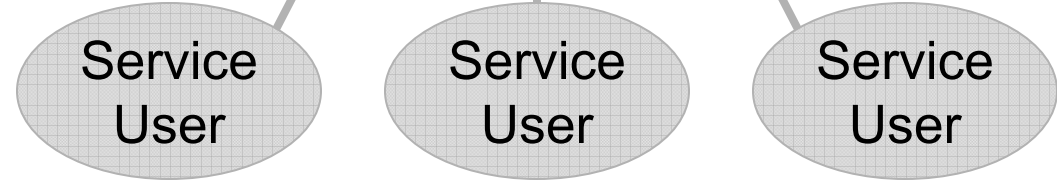


Defines „rules“:

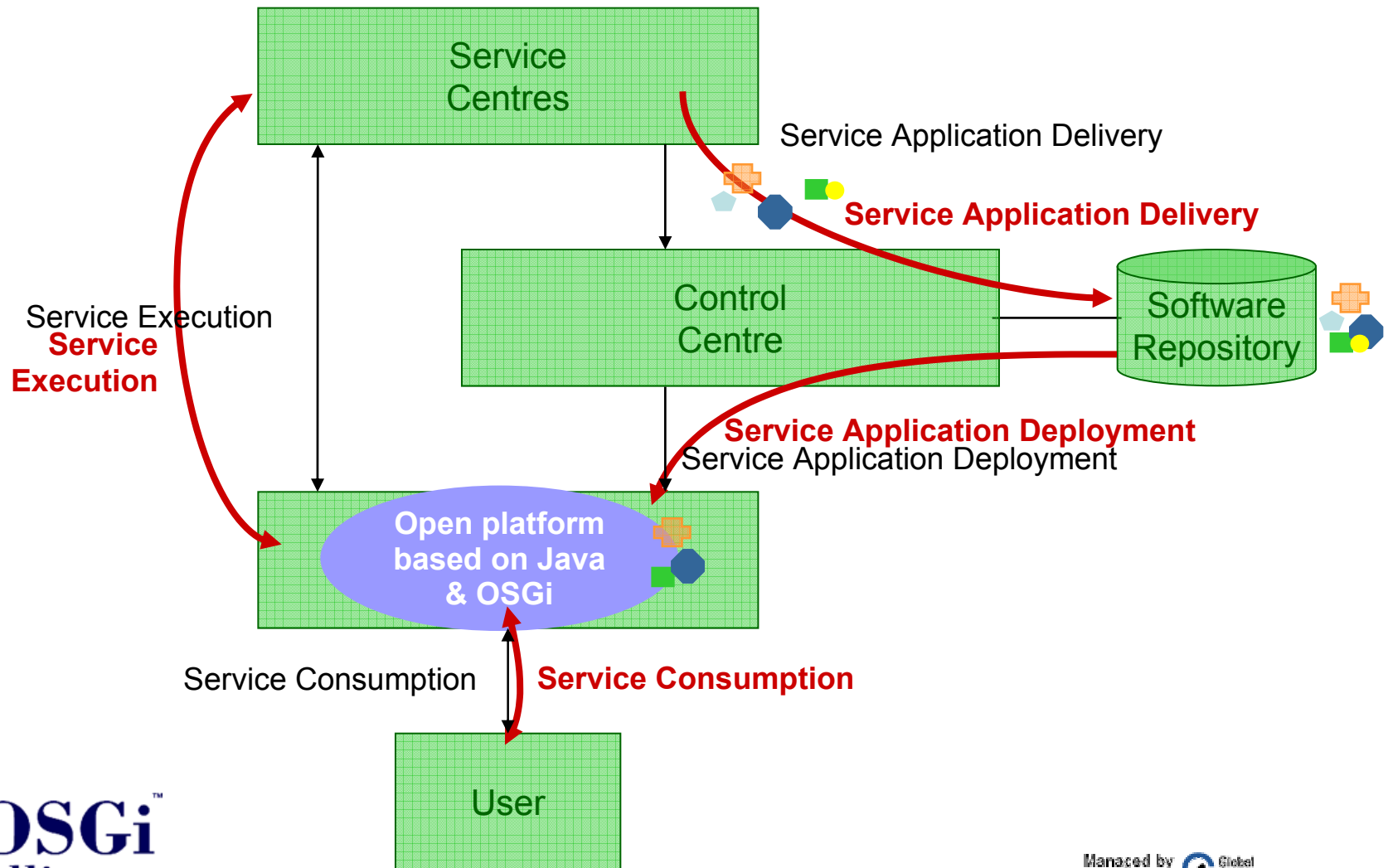
- Entry of Service Providers
- Entry of Service Users
- Contractual/Legal
- Financial/Invoicing/Billing
- Cf. Telco Model



Seeks personalized service selection



Open Systems @ Work



Goals of the Project

New players in the service market...

- Enable service providers to:
 - Develop marketable and automotive-grade services
 - Make them available through any control center
 - Have end users subscribe to the services from any client system (vehicle brand and model)
- « Moment of Truth » for GST: Service Submission Contest
 - Intended to attract new service providers and innovative services
 - Fleet managers (Hertz, Avis, ...)
 - Insurance companies (Allianz, Axa, ...)
 - Assistance companies (AA, ADAC, ...)
 - Public authorities (SNRA, Dutch government, ...)
 - Parking lot operators
 - Gasoline distributors (Shell, Aral, ...)

Challenges

What we (think we) must achieve...

- Further develop state-of-the-art allowing service providers to rely on common (standardised):
 - Security mechanisms
 - Payment and billing mechanisms
 - Certification mechanisms
 - Access mechanisms to HMI functionality
 - Access mechanisms to other devices in the vehicle

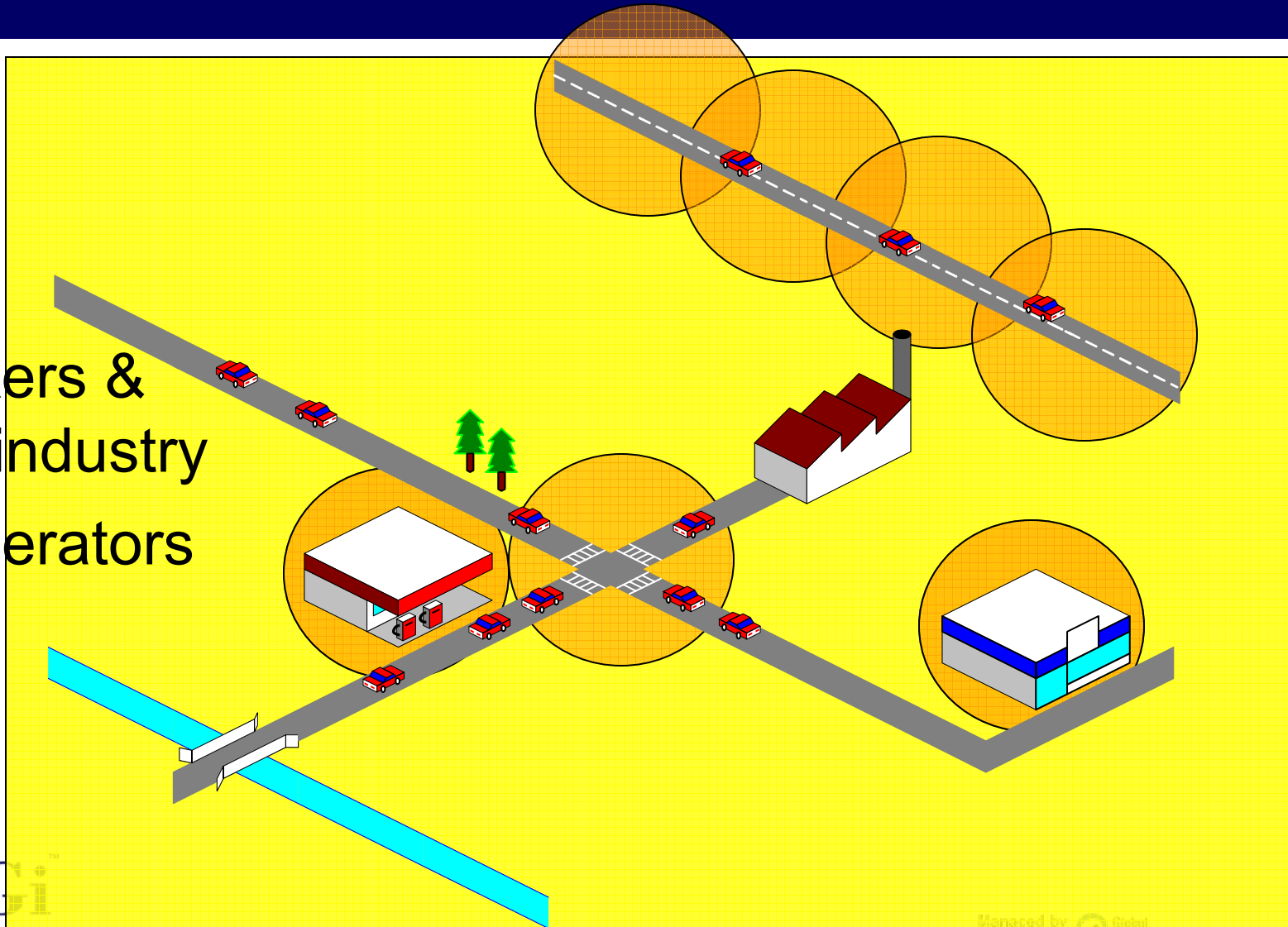
Open question: Exactly how much standardization can/should we mandate?

Market Drivers

Telcos

Car makers &
related industry

Road operators



Thank You for Your Attention

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www.ertico.com

www.gstforum.org

www.gstproject.org

www.ertico.com/gst



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