eCall/C-ITS

RTD actions toward open platforms

Implementation actions

It's the services...

Conclusions
**Basic eCall:**

- CPU
- Memory
- Comm. Module
- Positioning
- Interface
C-ITS station unit

1. GPS & Inert. Sensors
   - 20€
   - 3€ *
   - 13€ *
   - 6€ *
   - UMTS/LTE
   - WiFi / DSRC
   - BT

2. Map Geometry
   - Map 20€

Box/Power 20€
MOST 10€
HexRay 10€
CPU 15€
Memory 15€

NXP ATOP (Single Package)

* Consumer market prices, non-automotive grade

Source: R. Herrtwich, Daimler, 3rd ETSI ITS WS

Source: P. Pype, NXP, iMobility Forum
RTD towards open platforms: GST

Open market for in-vehicle Telematics Services

- Service Provider
- Service Provider
- Service Provider

Ease of Market Access

Open Telematics Market

Ease of Market Access

- Service User
- Service User
- Service User

Avoid unduly High barriers of market entry

Freedom of choice in service consumption

- March '04
- 3 years
- 21, 5 M€
- EU: 11 M€.
- 49 partners
RTD towards open platforms: CVIS => OVERSEE

- ITS stations in the vehicles
Priority area IV: Linking the vehicle with the transport infrastructure

1. Specifications for other actions

1.1. The definition of necessary measures to integrate different ITS applications on an open in-vehicle platform, based on:

— the identification of functional requirements of existing or planned ITS applications,
— the definition of an open-system architecture which defines the functionalities and interfaces necessary for the interoperability/interconnection with infrastructure systems and facilities,
— the integration of future new or upgraded ITS applications in a ‘plug and play’ manner into an open in-vehicle platform,
— the use of a standardisation process for the adoption of the architecture, and the open in-vehicle specifications.
1.2. The definition of necessary measures to further progress the development and **implementation of cooperative** (vehicle-vehicle, vehicle-infrastructure, infrastructure-infrastructure) **systems**, based on:

- the facilitation of the exchange of data or information between vehicles, infrastructures and between vehicle and infrastructure,
- the availability of the relevant data or information to be exchanged to the respective vehicle or road infrastructure parties,
- the use of a standardised message format for the exchange of data or information between the vehicle and the infrastructure,
- the definition of a communication infrastructure for data or information exchange between vehicles, infrastructures and between vehicle and infrastructure,
- the use of standardisation processes to adopt the respective architectures.
Implementing ITS: The ITS Action Plan

Area 1
- Optimal Use of Road, Traffic & Travel Data
  - EU-wide real time travel information
  - Collection & provision of road data
  - Accurate public data for digital maps
  - Free minimum information service
  - Promotion of multi-modal journey planners

Area 2
- Continuity of Traffic & Freight Management
  - Continuity of ITS services
  - Services for freight transport & logistics
  - Interoperability of electronic toll systems

Area 3
- Road Safety and Security
  - Promotion of in-vehicle safety systems
  - Introduction of Europe-wide eCall
  - Regulatory Framework on HMI
  - Guidelines: Impact on Vulnerable road users
  - Guidelines: Secure parking places for trucks

Area 4
- Integration of Vehicle & Transport Infrastructure
  - Open in-vehicle Platform architecture
  - Development & evaluation of coop. systems
  - Specifications for V2X, I2X communication
  - Guidelines: Impact on Vulnerable road users
  - Guidelines: Secure parking places for trucks

Area 5
- Data Protection & Liability
  - Decision support toolkit for ITS investments
  - Guidelines for public funding for ITS
  - Collaboration platform on urban ITS

Area 6
- European ITS Coordination
  - Legal framework for EU ITS cooperation
  - Decision support toolkit for ITS investments
  - Guidelines for public funding for ITS
  - Collaboration platform on urban ITS
Private/ Industrial sectorial initiatives

- Private in-vehicle telematics platforms (OEMs, SPs, agreements)
- Genivi
- C-ITS
- Car Connectivity Consortium: MirrorLink

Eucar, 23 May 2012
More Onboard equipment becoming mandatory:
- Digital tachograph
- EETS
- eCall

Sharing functionalities
- ECU
- GNSS
- Communication Module
1. Platforms must be secured
   - Avoid unexpected/malicious access to in-vehicle systems
   - (Regulated) services must be tampered proof - even when sharing facilities-

2. Evolution (upgradeability)
   - Due to evolution of the technology
   - Due to evolution of political requirements
EC actions

✓ 1st phase study within the ITS AP

✓ Revision of the digital annex to the tachograph regulation (MOVE + JRC)

✓ The second phase of the study on the open platform architecture
  ✓ Recommendations to the politicians on the best architectures and how to facilitate their uptake
  ✓ Feed the revision work of the DT annex
  ✓ Other possible actions

Completion expected Summer 2013
Europe’s Transport Sector
Smart mobility services

- Real Time Traffic and Travel Information
- Optimised collection and provision of road, traffic and travel data
- Accurate public data for digital maps
- Cooperative Intersection Safety

Open in-vehicle platforms
Traffic safety information services

- ITS services to improve infrastructure usage
- eCall: Pan-European in-vehicle emergency call
- Open Data

Multimodal journey planners

- ITS services for travel assistant
- E-Freight

Road tolling
ITS framework architecture
Connected vehicles, C-ITS will be soon in the roads

It will bring new services to the vehicle environment (regulated and private)

Services will need to access similar functionalities/interfaces/data

EU-wide services need standards/interoperability

Open in-vehicle platform can tackle these issues, while reducing implementation costs and ensuring fair competition

Security, cooperation, win-win situation is needed
Thank you for your attention!