



eCall: Car that can save your life

European Commission
Directorate General Information Society and Media
ICT for Transport



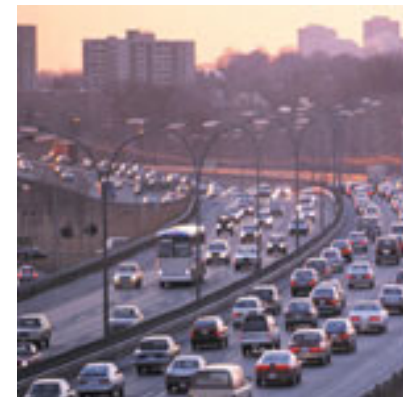
Information Society
and Media

eSafety HLM - 18 October 2005

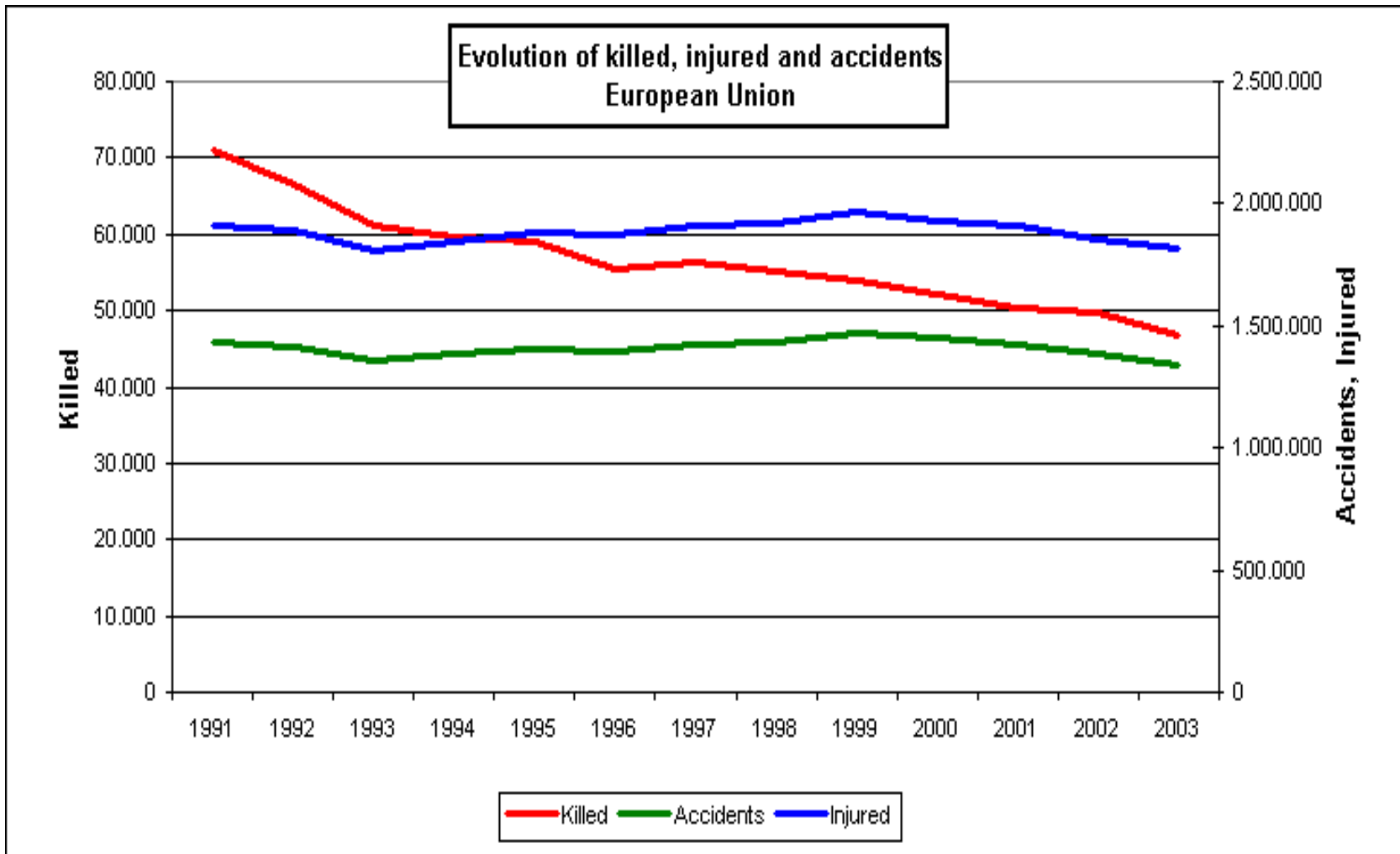


- The White Paper on European Transport Policy for 2010
- Goal: To halve the number of fatalities by 2010
- Measures:
 - Shared Responsibility
 - Road Safety Action Plan (2003)
 - eSafety Initiative (2002)
- Mid-Term Review in September 2005:
 - Still over 40.000 fatalities per year
 - Still over 1.8 million people severely injured in road accidents per year

requiring urgent medical attention, many not know their position or may not be able to call



Road Safety in Europe (2)



EU 25, Source: CARE Database





The pan-European eCall (1)

- Triggered automatically by the in-vehicle device or by vehicle occupants
- Builds on the single European Emergency number (112 and E112)
- Creates a voice link to the closest PSAP and sends data message (Minimum Set of Data) **including accurate location**
- **Challenges:**
 - Pan-European interoperability
 - Building the whole location-enabled emergency service chain, including PSAP upgrades
 - Solving the business case for all players: users, automotive, telcos, insurance, emergency services





The pan-European eCall (2)

- **Reduction of average response time to the accident:**
 - ✓ 50% in Rural Areas
 - ✓ 40% in Urban Areas
- **Reduction of accidents severity**
 - ✓ 15% to less severe medical category
- **Annual lives saving**
 - ✓ Estimated to be up to 2.500 in EU 25
- **Costs savings**
(exceed many times needed investments)
 - ✓ Up to 26 billion Euro in EU 25 annually



Sources: SEiSS Study, E-MERGE Project





Commission Actions Supporting eCall (1)

- 1st eSafety Commission Communication on “**ICT for Safe and Intelligent Vehicles**” in 2003
- Establishment of **the eSafety Forum** and the **eCall Driving Group**
- Support via the RTD Projects E-MERGE and RESCUE (Part of GST) and studies
- eCall Toolbox under eScope
- Visits to the Member States: F, DE, P, S, E, BE, ...
- Meetings with Automotive, Insurance and Telecom industries



E-MERGE

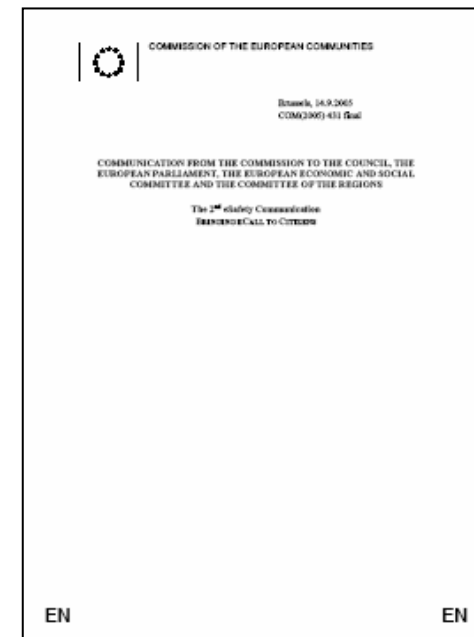
RESCUE
Part of **GST**





Commission Actions Supporting eCall (2)

- Organisation of Experts meeting:
 - 1st: Helsinki, 15th April 2005
 - 2nd: Geneva, 2nd December 2005
- Support to standardisation in ETSI/CEN
 - Kick Off meeting: 10th May 2005
 - 2nd meeting: 15th November 2005
- HL Meetings with the Member States
 - 1st meeting: 27th September 2005
- 2nd eSafety Communication: **Bringing eCall to Citizens** (September 2005)





The 1st eSafety Communication

“Information and Communications Technologies for Safe and Intelligent Vehicles”

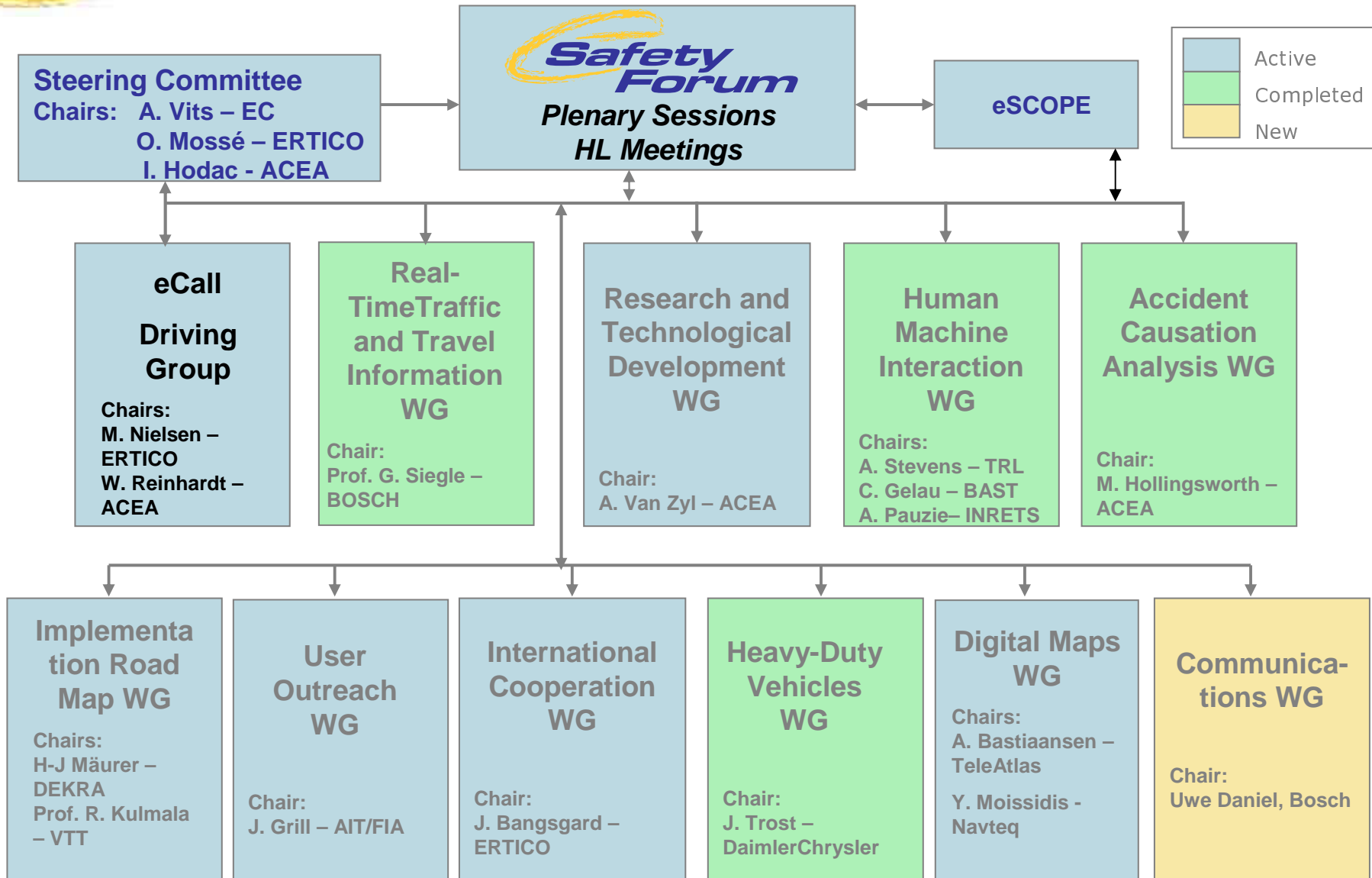
- Adopted on 15 September, 2003
- eCall: A key recommendation

“The Commission will promote harmonised, pan-European in-vehicle emergency call (eCall) service that builds on the location enhanced emergency call number E112”





The eSafety Forum





eCall Driving Group

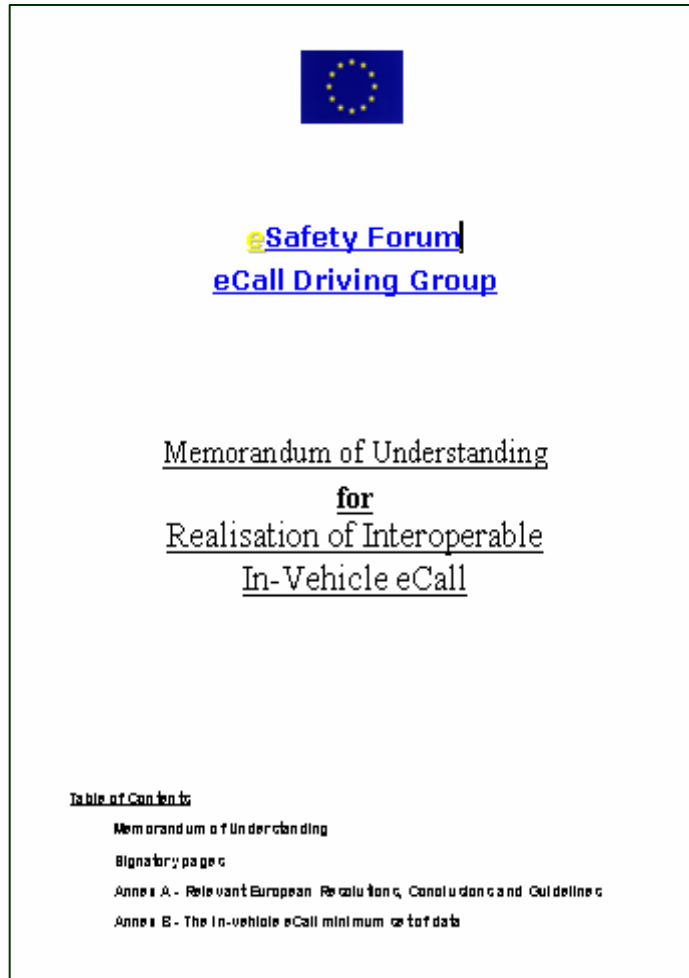
The eSafety Forum eCall Driving Group is co-chaired by ACEA and ERTICO, and has members representing all stakeholders:

- Focus on reaching consensus on technical elements, solving the business case
- eCall Memorandum of Understanding in 2004
- Has adopted basic architecture, use of 112, defined minimum set of data and proposed protocols for standardisation
- **Has developed Plan For Success – full Roll-Out in 2009!**





The eCall MoU (1)



The MoU aims at parallel commitment of all stakeholders towards full eCall Roll-Out:

- The parties will actively contribute to development of implementation and business plans, and
- Will define together an overall European work plan
- Will work together under the eSafety Forum





The eCall MoU (2)

- eCall MoU signed by ACEA*, EC and ERTICO on 27 August 2004
- Signed so far by two Member States (Finland and Sweden) and Switzerland
- Signatories include:

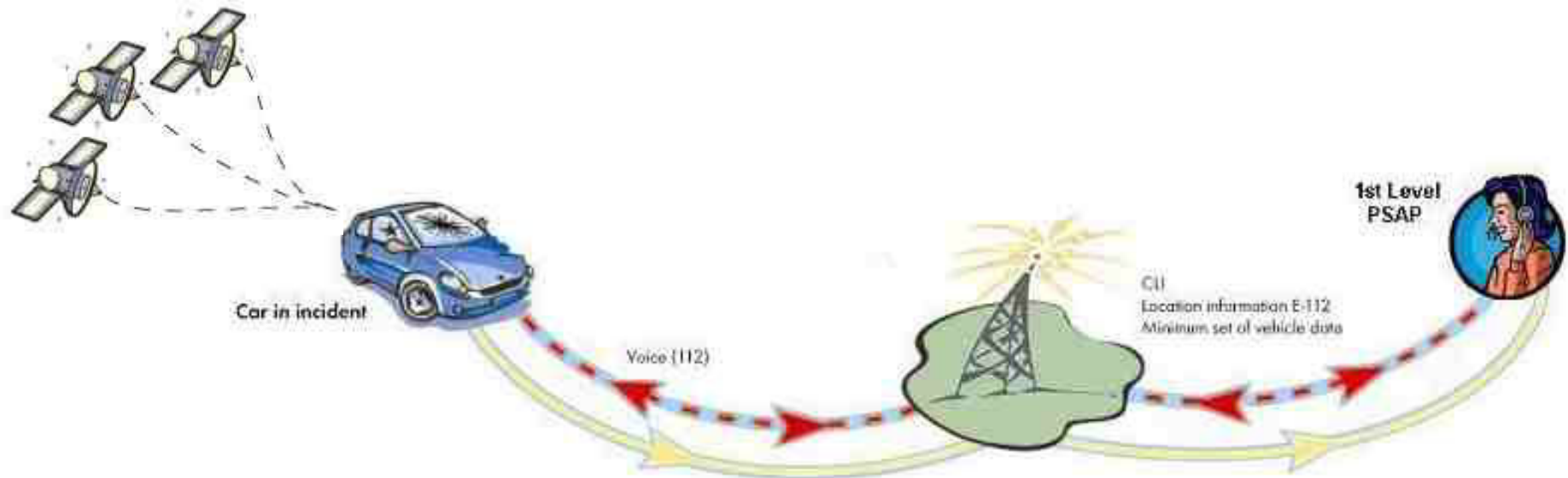
ADAC e.V., Allianz AG, ARC Transistance S.A, CapGemini Finland OY, City of Oulu Finland, EENA 112, Finnish Road Administration, Hellenic Institute of Transport, Indagon OY, ITS Sweden, KLPD - The Netherlands' National Police Organisation, KoKom Norway - National Centre of Emergency Communication in Health, LSP Hungary, Ministry of Transport and Communications Finland, Mobisoft OY, Mondial Assistance Group, Motorola, Navteq B.V., Omnis-Online Ellas SA TIC/PSAP, Peiker acoustic GmbH & Co. KG, RACC - Reial Automòbil Club de Catalunya, Robert Bosch GmbH, Sagem Communications, Siemens VDO Automotive AG, Siemens Wireless Modules, Swedish Road Administration, Swiss Federal Roads Authority, T-Trac Scandinavia AB, TeleAtlas NV, Telit Communications SpA, Thomas Miller & Co. Ltd., TISPOL -The European Traffic Police Network, VTT Building and Transport, Wavecom, WirelessCar

*ACEA on behalf of: BMW GROUP, DAF TRUCKS NV, DAIMLERCHRYSLER AG, FIAT S.p.A, FORD OF EUROPE GmbH, GENERAL MOTORS EUROPE AG, MAN NUTZFAHRZEUGE AG, PORSCHE AG, PSA, RENAULT SA, SCANIA AB, VOLKSWAGEN AG, VOLVO AB,





eCall: The Technical Principle

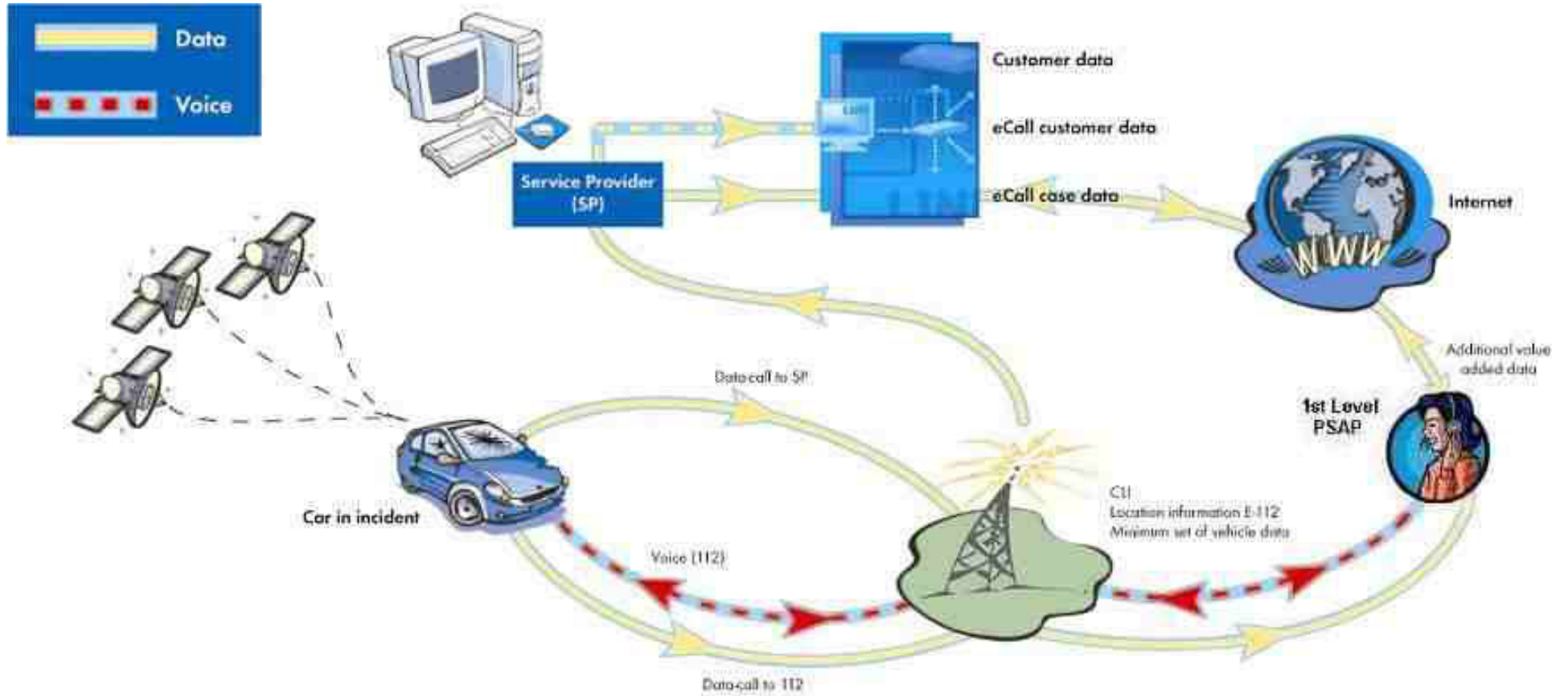


1.- Minimum Set of Data





eCall: The Technical Principle



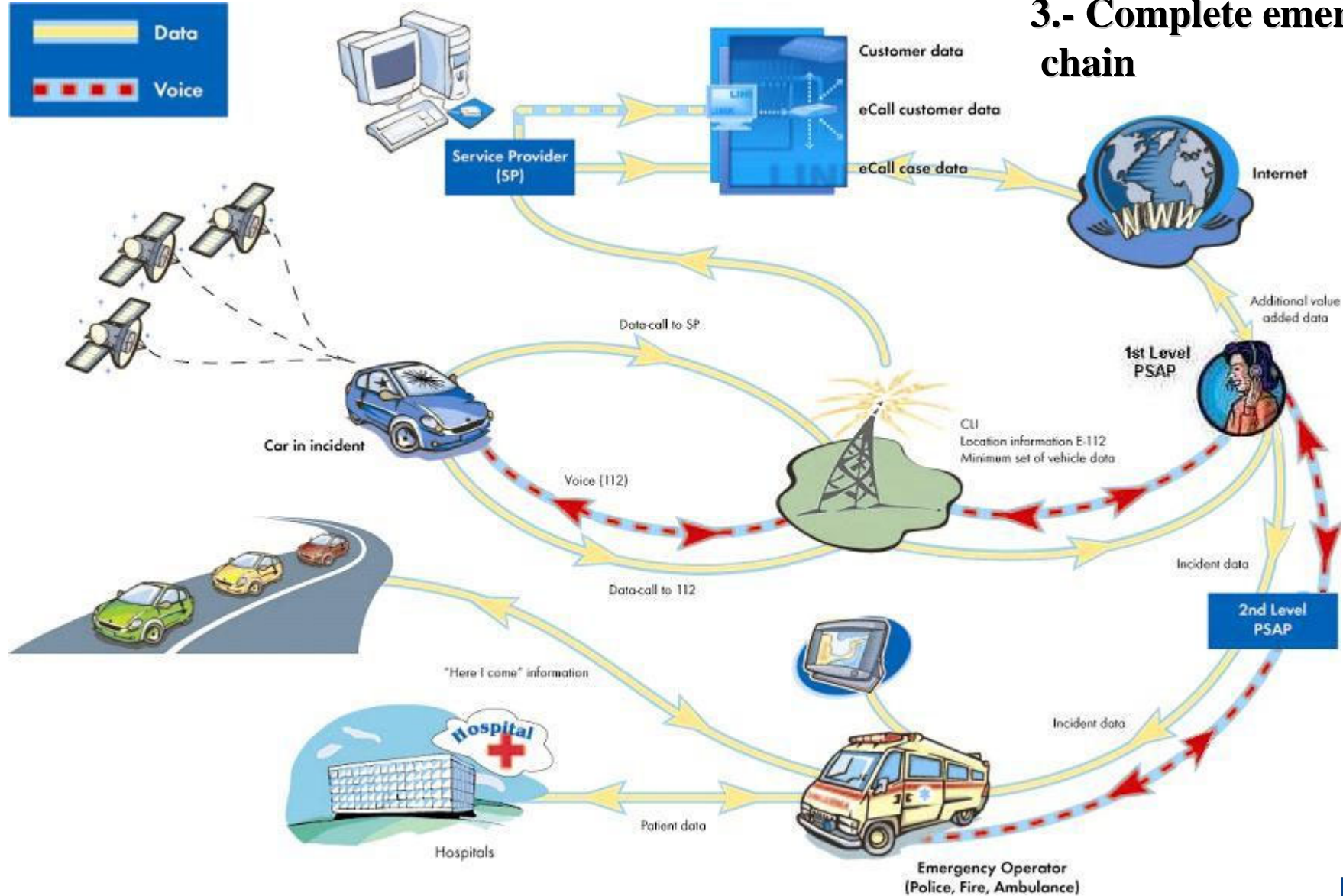
2.- Full Set of Data





eCall: The Technical Principle

3.- Complete emergency chain





eCall: Cost Benefit Balance

• Costs

- **IVS*** (development, integration, unit cost, HW+SW (license))
- **Telecom costs**
 - infrastructure adaptation, fix SIM, handling, provide service for delivery of information to PSAPs
- **PSAP/Call/Data Center/IT + Service Infrastructure (partly E-112 carry over)**
 - Set up cost
 - Operation cost
 - Update/maintenance costs
 - Optimization
 - Training
- **Market Promotion and education**

• Benefits/savings

- **Fatality and severity of injury reduction**
 - Social costs reduction
 - Health care cost reduction
 - Insurance costs reduction
- **Improve efficiency of EAs**
 - Better fit of resources to incident
 - Shorter reach to incident allowing lower severity and better use of resources
- **Surrounding warning**
 - Reduce nose to tail collisions
 - Better traffic flow management
 - Expandable mobility service

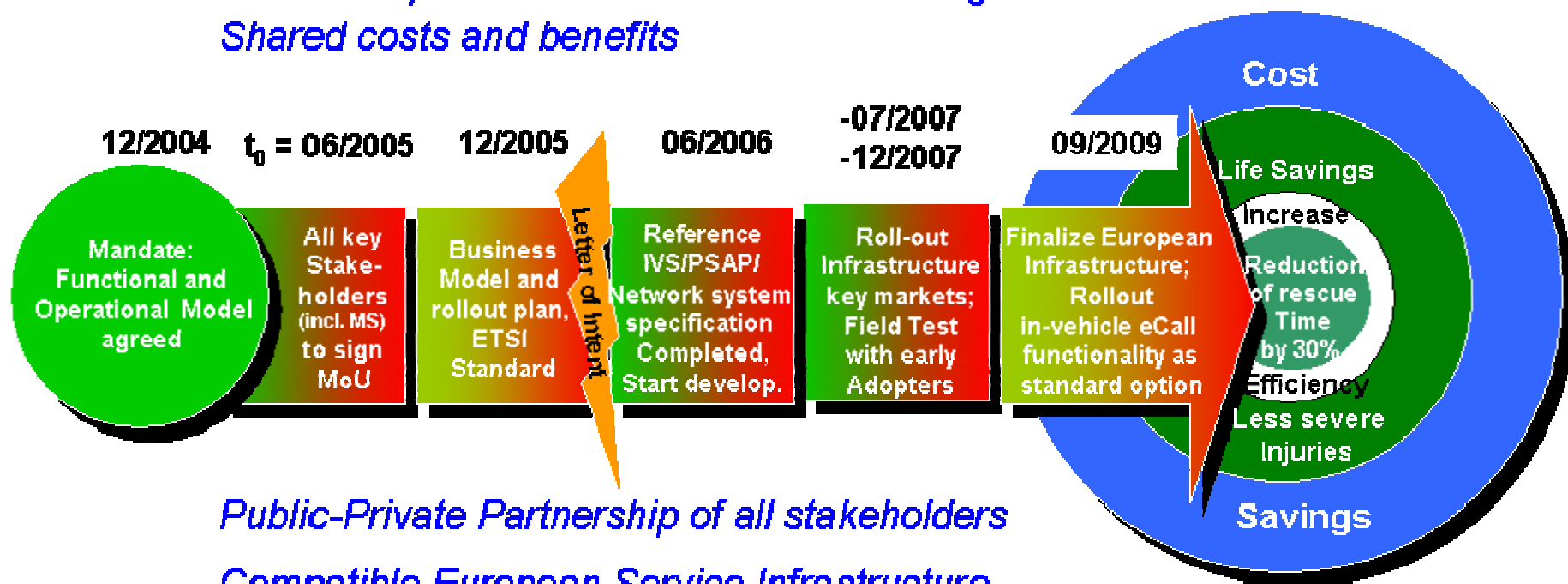
Financial incentive





eCall: Plan to success

Low cost in-vehicle eCall functionality as standard option
Common specifications and reference design
Shared costs and benefits



Public-Private Partnership of all stakeholders
Compatible European Service Infrastructure
Full coverage of key Member States
Financial incentives for ramp-up





The 2nd eSafety Communication

Bringing eCall to Citizens

- Adopted on 14 September, 2005
- Significant progress towards the full-scale roll-out of eCall has been achieved
- **But: Roll-out can be delayed if the national and regional governments do not invest in the necessary infrastructure for eCall**





Actions for the Member States

1. The Member States should sign the eCall MoU
 - Lack of signatures threatens to delay the eCall implementation and weakens the commitment of industry
2. The Member States should promote 112 and E112
 - the Member States should promote the use of 112 and take steps for accelerating the introduction of location information in their public wireless networks
3. The Member States should upgrade their PSAPs to handle location-enhanced E112 calls and eCalls
 - The infrastructure at PSAPs should be in place at the latest at the end of 2007
4. The Member States should provide adequate location-enhanced emergency services and language support
 - For maximum benefit, the whole emergency chain should be upgraded





Promoting eCall

- The Member States should set up national platforms for promoting eCall
 - The Commission will launch a promotion campaign on 112, E112 and eCall and organise conferences
- The Commission will propose establishing **a sub-group dealing with public safety and emergency communications** under the Civil Protection Committee
- All stakeholders should support the work of the eSafety Forum and the eCall Driving Group
- The European Standardisation Organisations ETSI and CEN, with the support of ITSSG should provide the necessary standards





The Conference on 112 – 11/10/2005

- Opened by Commissioner Reding
- ~ 100 participants from all MS + Accession countries
- All MS able to answer 112 calls, E112 needs improvement.
- Exchange of best practices:
 - PSAPs upgrading, E112 location treatment, handling of false calls, 112 awareness, multilingual treatment,...
- Agreement to establish **a sub-group dealing with public safety and emergency communications** under the Civil Protection Committee





Next Steps

- The 2nd Commission Communication in the Council and the European Parliament
 - **Member States Actions**
- PSAPs should provide input on requirements
- Member States to send representatives to the **Civil Protection Committee Subgroup**
- Finalising the work of the eCall Driving Group
- **eCall Expert Meeting – 2nd December 2005 (Zurich)**
- A full-scale Benefit-Cost Study (starts 2006)
- Further User Awareness and deployment actions under the eSafety initiative and i2010
- Studying the use of incentives as a way to have a positive business case





Standardisation

1. Communication IVS - PSAP:

ETSI MSG + 3GPP

→ Cellular communication (GSM-3G)

→ + Data in the Signal channel

Expected 1Q2006

2. Application level:

ETSI ERM TG 37 +

ISO TC204 WG 16 + CEN TC 278

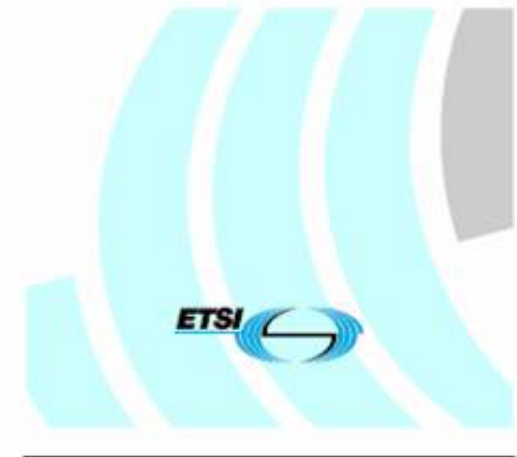
→ MSD format

- **Input from stakeholders/eCall DG needed to complete requirements**

ETSI SR 002 180 V1.1.1 (2003-12)

Special Report

Requirements for communication of citizens
with authorities/organizations in case of distress
(emergency call handling)





Support for implementing eCall

- Until the end of 2005: eScope
- From 2006 onwards: eSafety Support*
 - **eCall Toolbox – all available documents**
 - **Results from early adopters**
 - **eCall User Forum and Workshops**
 - **Dissemination to all stakeholders, and users**
 - **Support to standardisation**
 - **Helpdesk**



*) eSafetySupport is a SSA currently under negotiations (IST Programme)





Conclusions

- Under the eSafety initiative, we have developed a plan for the full-scale roll-out of eCall
- We need Parallel Commitment and investments, especially in the infrastructure to deploy eCall in Europe
- **Let's succeed together!**





More information

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eSafety Web-site:
http://europa.eu.int/information_society/programmes/esafety/index_en.htm

eSafety on CORDIS website:
www.cordis.lu/ist/so/esafety/home.html

eScope website
www.eScope.info

