

# eCall Meeting Sweden

## European in-vehicle eCall

**E-MERGE**

**RESCUE**

Part of **GST**

**Safety**

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*ERTICO - ITS Europe*



**ERTICO**

# Why is eCall important ?

- Traffic Accidents

- 43,000 dead, 1.7 million injured in traffic in 1998
- Correct professional help given within the first hour is crucial for surviving an accident (GOLDEN HOUR)

- For these vehicle related accidents the situation is severe

- Normal mobile phone may not be available for use, or the car occupants may not be able to call
- Less location-awareness, especially on interurban roads or abroad

EC objective to reduce the traffic accident rate  
with 50% by 2010



# Why is eCall important ?

## The situation is worse for those travelling abroad:

- Over 100 million trips to another EU country per year (EU-15)
- 65 % people feel less protected while abroad
- Most do not know which number to call in an emergency (in some countries over 60%)
- Language problems are pertinent and prohibit proper communication



# Why is eCall important ?

1. Reduction of average response time to the accident:
  - ✓ 50% in Rural Areas
  - ✓ 40% in Urban Areas
2. Reduction of accidents severity
  - ✓ 15% to less severe medical category
3. Annual lives saving
  - ✓ Estimated to be over 2.000 in EU 15
4. Costs savings (exceed many times needed investments)
  - ✓ ~ 21 billion Euro in EU 15 annually
  - ✓ ~ 600 € on a per equipped vehicle basis



# History of commercial eCall offering

- Renault Odysline
  - ◆ Closed down due to the customers not being willing to pay for limited service
  - ◆ High operating costs to offer eCall as updating PSAP information is very demanding
- T-Mobile Traffic
  - ◆ Operating a service today for DC. Low customer penetration – high costs
- PSA
  - ◆ Offering a French/German service to Peugeot and Citroen. Low penetration
- Ford
  - ◆ Closed the service – high costs and low customer demand
- GM Onstar
  - ◆ Offering a German service. Low penetration
- Volvo OnCall
  - ◆ Offering a service today in European countries. Low penetration.

Demand from PSAPs for common service accross Europe -  
Supported by the vehicle makers

# Building on E-112 Directives

- Decision 91/396/EEC introduced the single European emergency call number 112 (effective from 1992)
- Directive 2002/22/EC, **the Universal Service Directive**, requires operators to make caller location information available to authorities handling emergencies, **to the extent technically feasible**, for all calls made to the single European emergency call number 112.
- Directive 2002/58/EC, **the Directive on privacy and electronic communications** establishes exemption to privacy protection for organisations dealing with emergency calls

# Building on E-112 Directives

- **Commission Recommendation** on the processing of caller location information for the purpose of location-enhanced emergency call services (Adopted by the Commission in June 2003)
- Provisions for all calls to the single European emergency call number 112 to forward to PSAPs **the best location information available**
- Must include the necessary flexibility to accommodate future requirements of **in-vehicle telematics terminals**.
- Encourages the use of **common open interface standards** and high precision location technologies

# A Priority Goal of the eSafety Initiative

The Commission Communication on eSafety\*:

“The Commission will promote harmonised, **pan-European in-vehicle emergency call (eCall)** service that builds on the location-enhanced emergency call E-112”.

\* Information and Communication Technologies for Safe and Intelligent Vehicles, COM(2003) 542 Final, 5.9.2003



# Activities in relation to the realisation of pan-European in-vehicle eCall – 2003/2004

- ◆ **E-MERGE** - enabling pan-European vehicle e-call services
- ◆ eSafety Driving Group on eCall
- ◆ **GST- RESCUE** – Global System for Telematics / RESCUE services

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# **#E-MERGE**



# E-MERGE

The project had the objective to:

- Create an technical, operational and business solution for pan-European vehicle E-Call services available to **all** vehicle users

*The project was co-funded by the European Commission  
DG Information Society – IST programme*



# E-MERGE

**Project Period:** 24 month – April 2002 to April 2004

## Partners:

➤ Vehicle manufacturers



➤ Equipment manufactures



➤ Service Providers



➤ PSAP (Public Safety Answering Point)



➤ Emergency operators



➤ Public Authorities



➤ Others

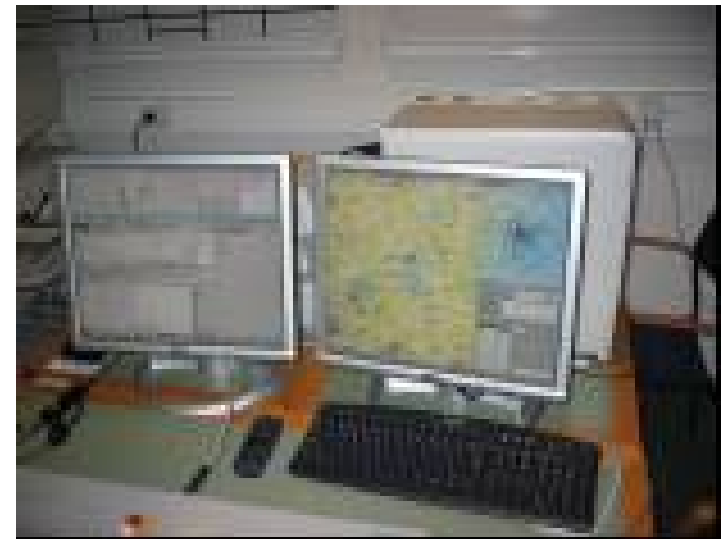


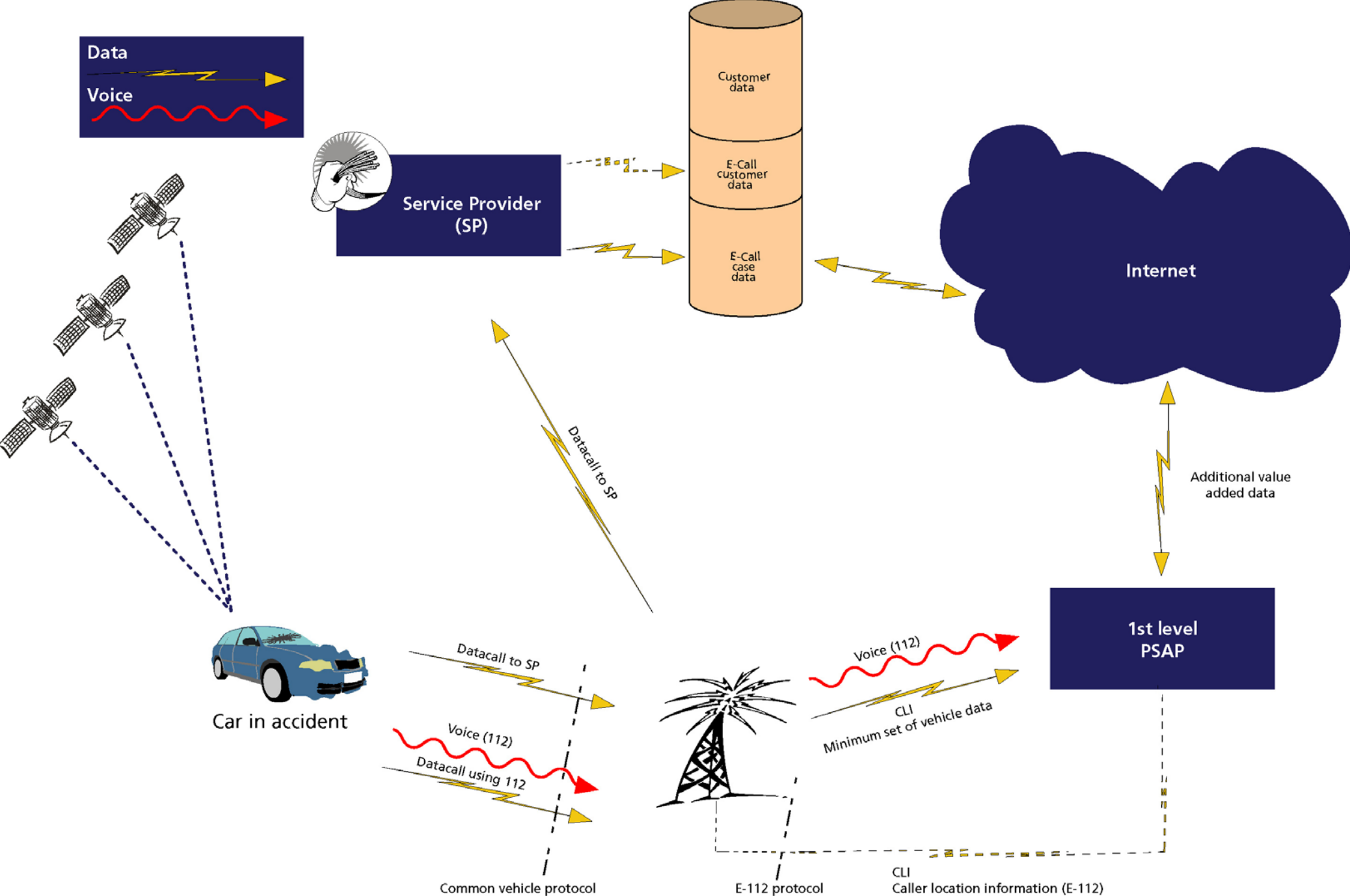
from Belgium, France, Germany, Italy, UK, Spain, Netherlands and Sweden

# Key decisions:



- ◆ Based on using 112 for both voice and data
- ◆ Based on using a common protocol
  - for E-MERGE GTP has been selected
- ◆ Based on sending the Minimum Set of Data as **data in the 112 voice channel.**

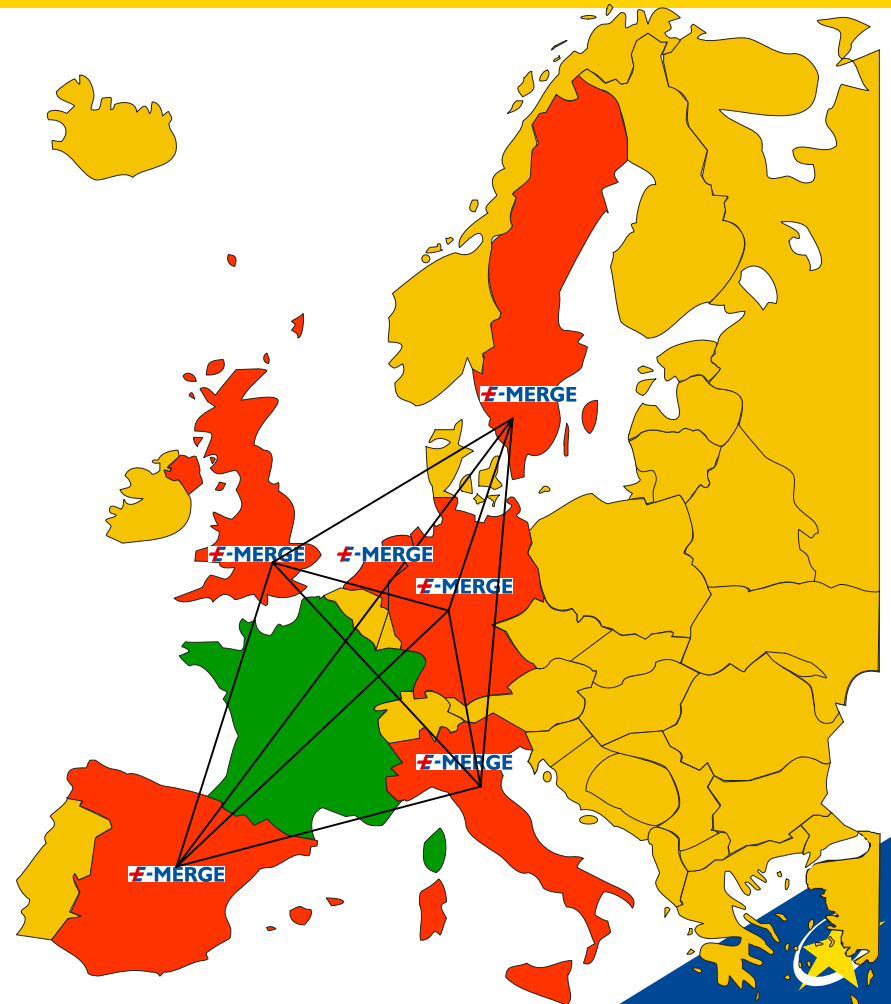




# E-MERGE

E-MERGE has been tested and validated in and between:

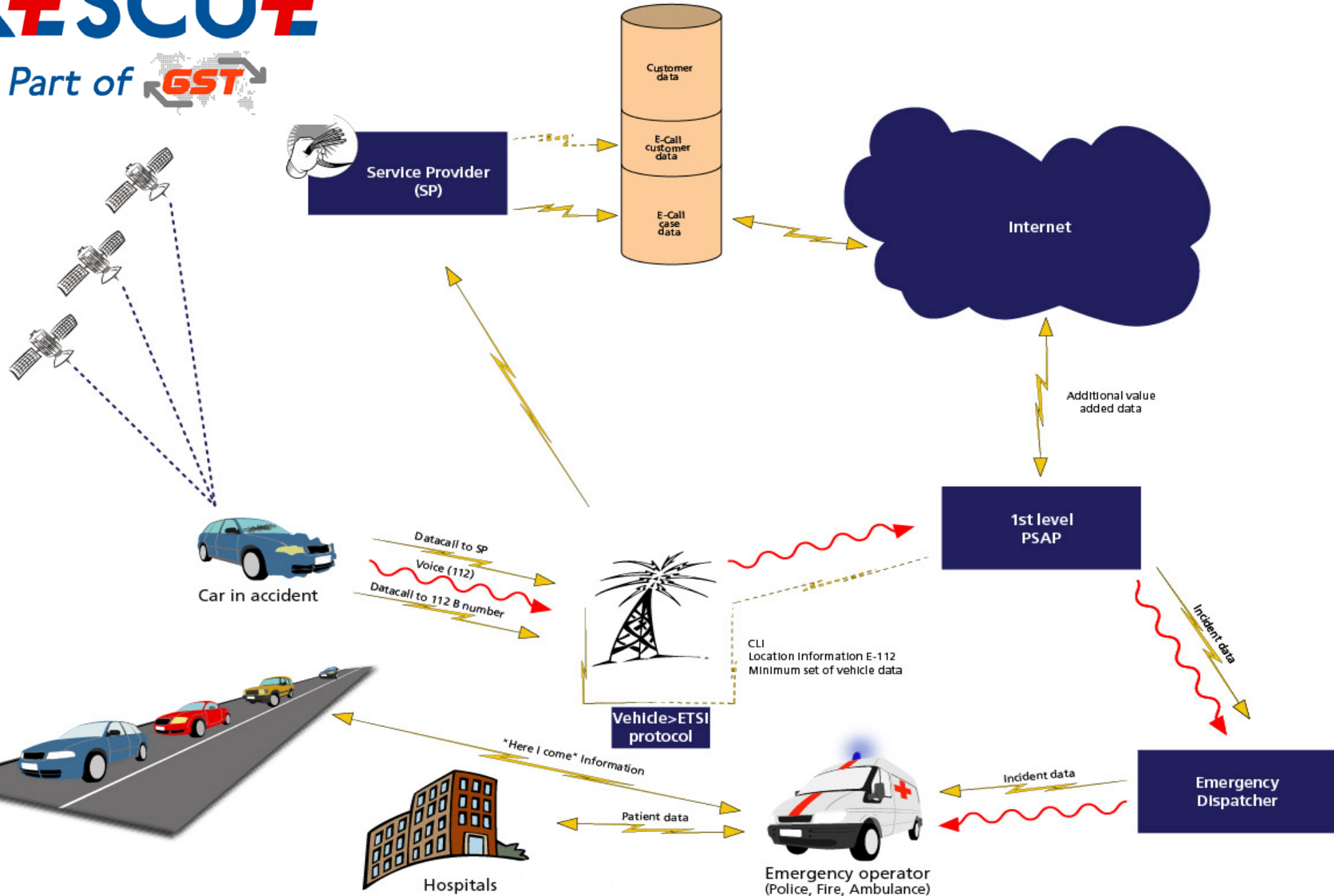
- Germany
- Sweden
- UK
- Spain
- Italy
- The Netherlands



- Complete in-vehicle emergency call by including emergency vehicle in the chain
- Ensure accident information is available in emergency vehicle
- Guide emergency service by accurate routing information
- Blue corridor system: Warning road users of approaching emergency vehicle
- Coning system: Warning approaching road users of accident

# RESCUE+

Part of **GST**



- Supporting the deployment process by investigating:
  - Take up by Member States of E112
  - Costs for eCall on top of a E112 implementation at PSAP level
- Defining, specifying and testing together with Orange a revised way to transmit data from the vehicle to the PSAPs



# DG eCall

The European Commission eSafety Driving Group on eCall is co-chaired by ERTICO

Focused on reaching consensus on technical elements and on solving the business issue





# DG eCall

## The eSafety Driving Group has endorsed the E-MERGE principles:

- ✓ Adopted using 112 for all the emergency call from vehicles
- ✓ Adopted the main part of the E-MERGE minimum set of data
- ✓ Adopted the ideas of carrying the data in the 112 voice channel **or by using any technical solution that ensures that the data is pushed to the same PSAP operator that handle the voice call**
- ✓ Adopted the need for a **common protocol**
- ✓ **Principles in place now!**
- **Future challenge is;**
  - to agree on a parallel commitment to implementation
  - to define the road map to deployment and the related business case



# European Memorandum of Understanding

- Through an MoU working on a parallel commitment towards:
  - Identifying a common road map to deployment and related business cases leading to:
    - Implementation of in-vehicle equipment in all new vehicle models when feasible
    - Willingness and readiness to carry the data from the Telecom operators
    - Readiness to receive and act on the vehicle data from the PSAPs



# European Memorandum of Understanding



eCall MoU (Memorandum of Understanding) signed by  
ACEA, EC and ERTICO and 22 other stakeholders

# DG eCall Work Programme 2005

## ➔ **Ensure that the MoU is signed by all parties**

By arranging explanatory visits to MS where all stakeholders from that MS is present

## ➔ **Follow and participate in the ETSI standardisation of the data transmission from the vehicle to the PSAP**

Requirement document has been provided to ETSI EMTEL  
Work ongoing in TISPAN and 3GPP

## ➔ **Work towards realizing a common low cost IVS**

What is the requirements to an in-vehicle telematic box  
Define the eCall compliant box and price this

## ➔ **Investigate how the value that eCall brings to the public and insurance sector could be used as incentives that could speed up deployment**

Create work item to better understand the Insurance issues  
Arrange meeting with Insurance Industry to discuss possibilities

# DG eCall Work Programme 2005

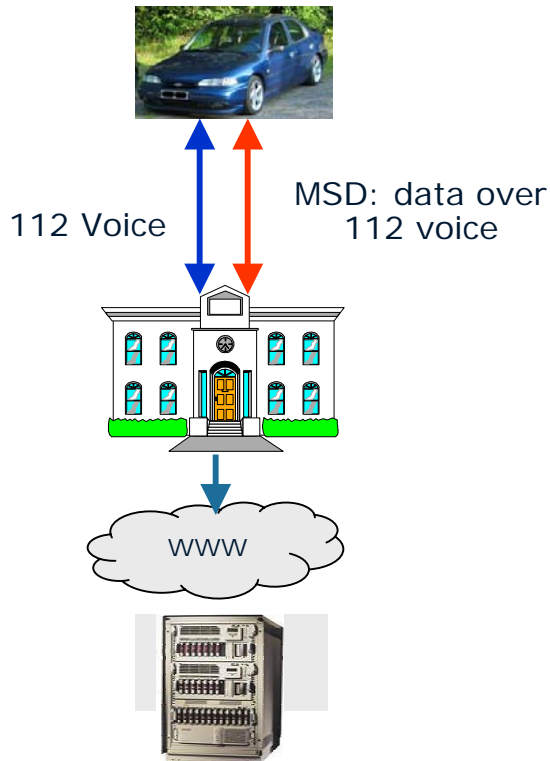
➔ **Arrange workshop for stakeholders at early adopters (Finland in early 2005)**

➔ **Provide "toolbox" which include all available information**

- Why
- Purpose
- Architecture
- Requirements
- Specifications
- Benefits
- Privacy and legal issues
- Experiences/best practice from early adopters
- Process towards deployment

# Racap of how to realise

Vehicle generated eCall



Possibility to obtain value added services from SP

- **Build on E112 roll out at PSAPs**
- **Direct, real-time message to PSAP operator receiving the 112 call including:**
  - ✓ Time of incident
  - ✓ Exact location including direction of driving
  - ✓ Vehicle identification
  - ✓ eCall qualifier giving the severity of the incident
  - ✓ Identification of service provider
- **Verification possibility via voice link**
- **No false alarms (double check mechanism)**
- **Safe automatic call also when driver is unconscious**
- **Link to private service provider for additional optional services possible**

# eCall - REASONING

- ✓ eCall tackles a real problem in Europe, with potentially huge socio-economic benefits !
- ✓ eCall is the only solution that can serve the majority of the road users in Europe, including citizens travelling abroad
- ✓ eCall is based on existing E-112 regulations and does not need lengthy approval processes
- ✓ eCall is the only standardised solution with pan-European roaming and interoperability

 We have eCall architecture and model for its implementation. We know its socio-economic benefits and investment needs. Therefore, all stakeholders need to proceed in parallel and

- ✓ Sign the MoU !
- ✓ Continue to work together in the eCall Driving Group !
- ✓ Take the actions recommended !

**eCall Saves Lives !**

# Thank You

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**ERTICO**

INTELLIGENT TRANSPORT SYSTEMS AND SERVICES - EUROPE