HeERO
Harmonised eCall European Pilot

ITS European Congress

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First Steps in the Deployment of the EU-wide Harmonised Interoperable eCall Service eCall – HeERO

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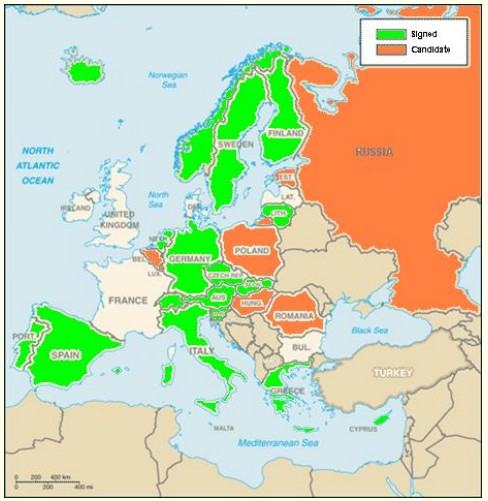
eCall in Europe

Statements

- European eCall available in 2014
  - Starting as an optional installation
  - Memorandum of Understanding has currently been signed by
    20 Member States
    4 non-EU States
    and more than 100 public and private organisations
  - HeERO project started 2011



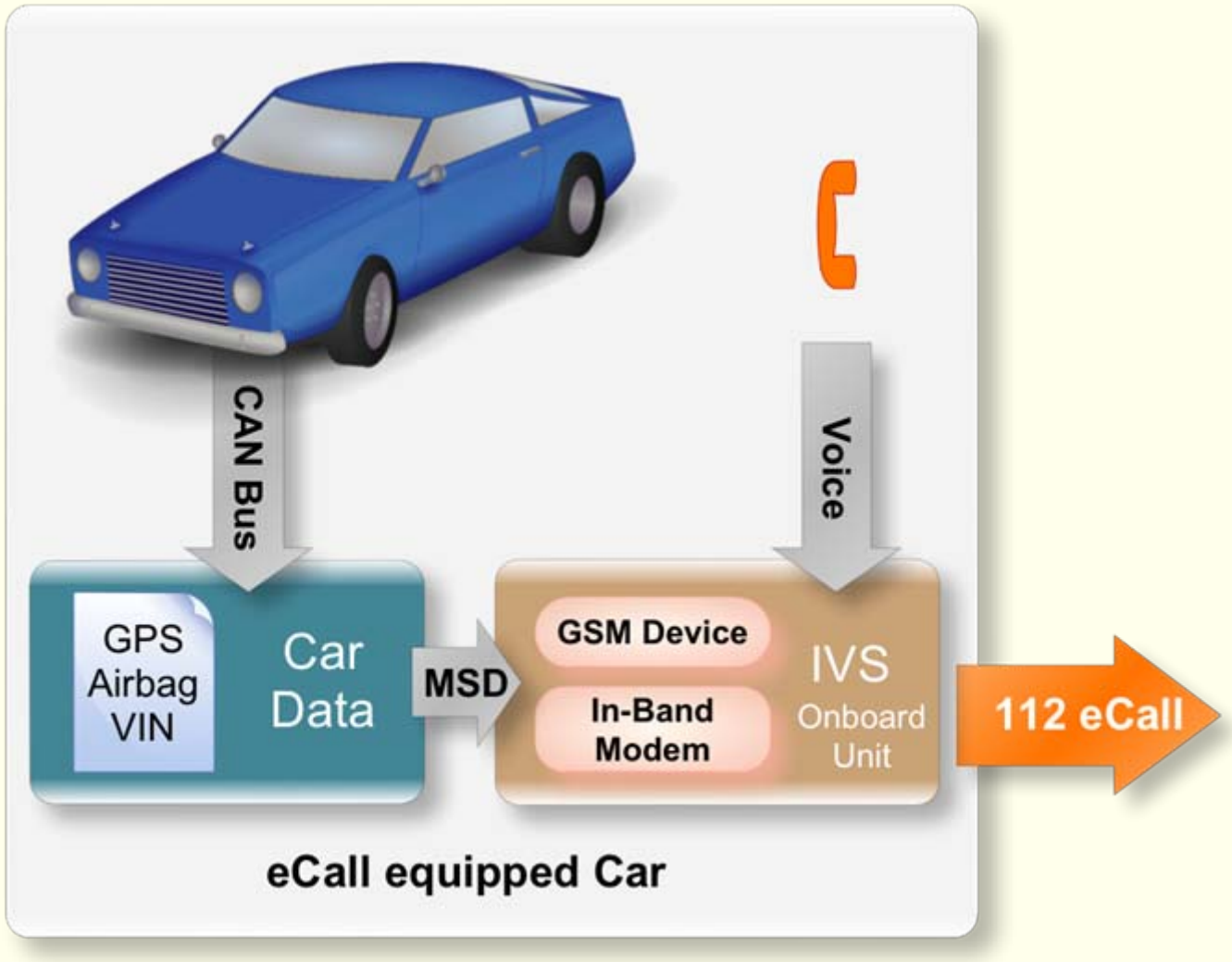
Pan-European eCall

- eCall means
  - Establishing automatic emergency Call in case of accidents detected
  - Transmission of accident relevant data (MSD)
    - State of different Security Systems
    - Car Coordinates by GPS
  - Speech connection to PSAP established after 4 seconds
  - Additional Manual call possible
- eCall uses 112
  - Automatic emergency call and „standard“ emergency call use the same line
  - Built-In Rerouting to next eCall-capable PSAP
- Pan-European Installation
  - Countries with PSAPs supporting eCall receive MSDs
  - Non-Supporters establish a speech connection

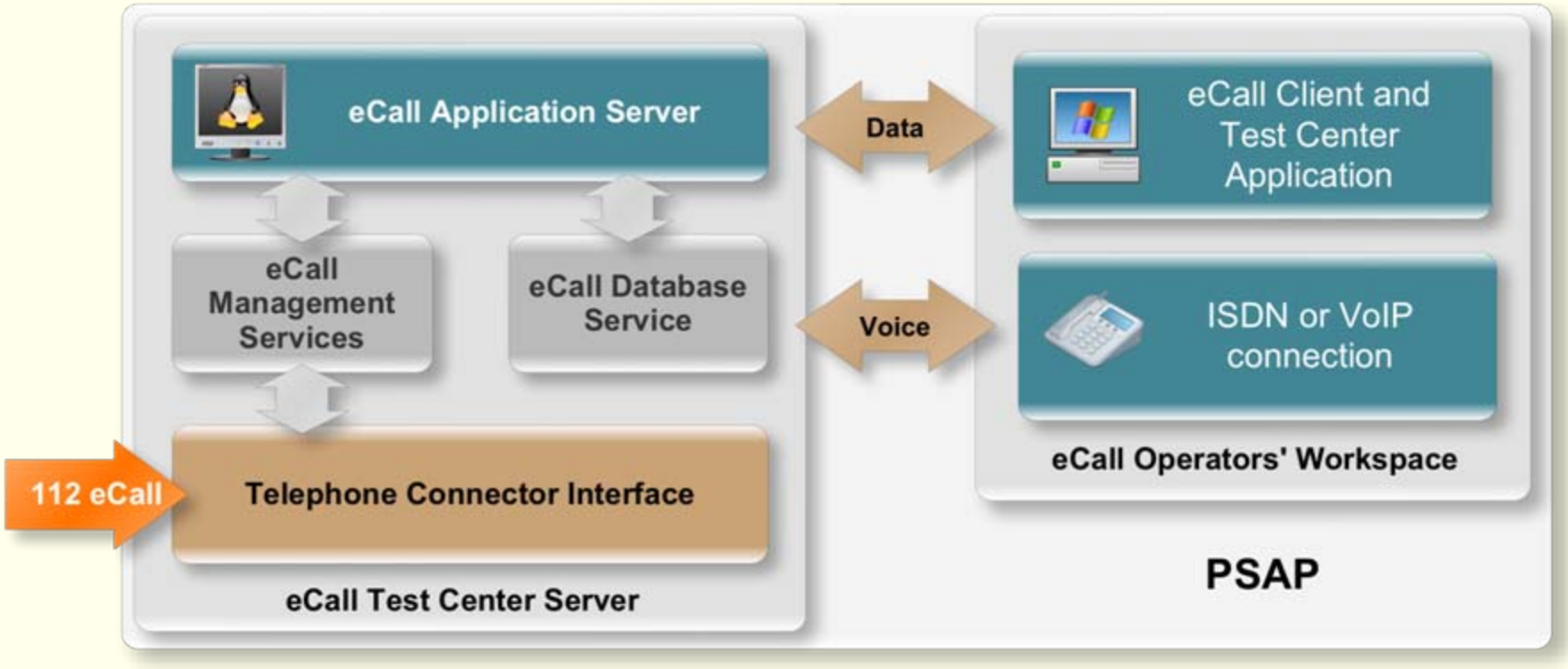
HeERO Project

- HeERO (Harmonised eCall European Pilot)
  - Start date: 01 January 2011
  - Duration: 36 months
  - Total budget: 10.254.803 EUR
  - EC contribution: 5.000.000 EUR
  - Coordinator: ERTICO
  - 40 partners – 9 Member and Associated States

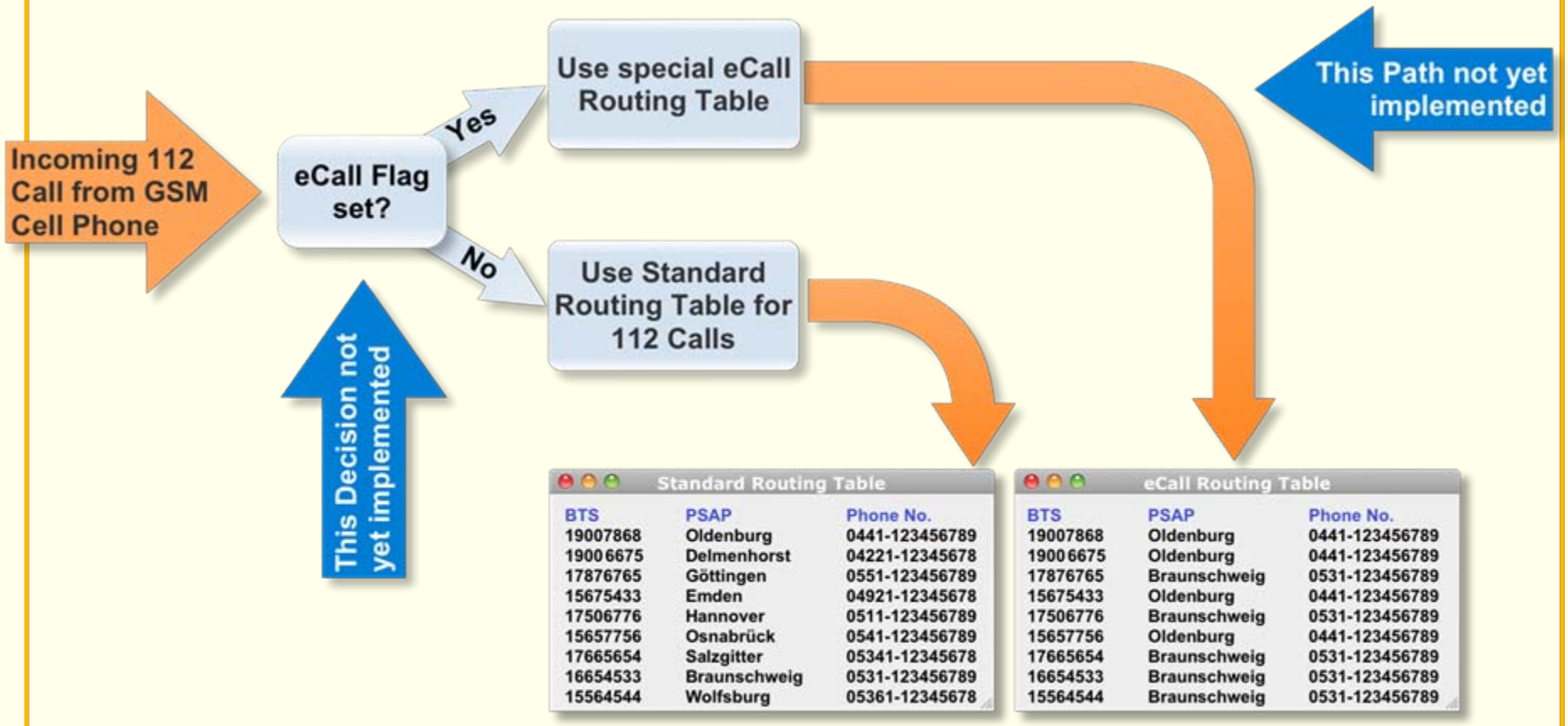
eCall System Overview – IVS



eCall System Overview – PSAP



eCall System Overview
Mobile Network Provider



Standard Routing Table

BTS	PSAP	Phone No.
19007868	Oldenburg	0441-123456789
19006675	Delmenhorst	04221-12345678
17876765	Göttingen	0551-123456789
15675433	Emden	04921-12345678
17506776	Hannover	0511-123456789
15657756	Osnabrück	0541-123456789
17665654	Salzgitter	05341-12345678
16654533	Braunschweig	0531-123456789
15564544	Wolfsburg	05361-12345678

eCall Routing Table

BTS	PSAP	Phone No.
19007868	Oldenburg	0441-123456789
19006675	Oldenburg	0441-123456789
17876765	Braunschweig	0531-123456789
15675433	Oldenburg	0441-123456789
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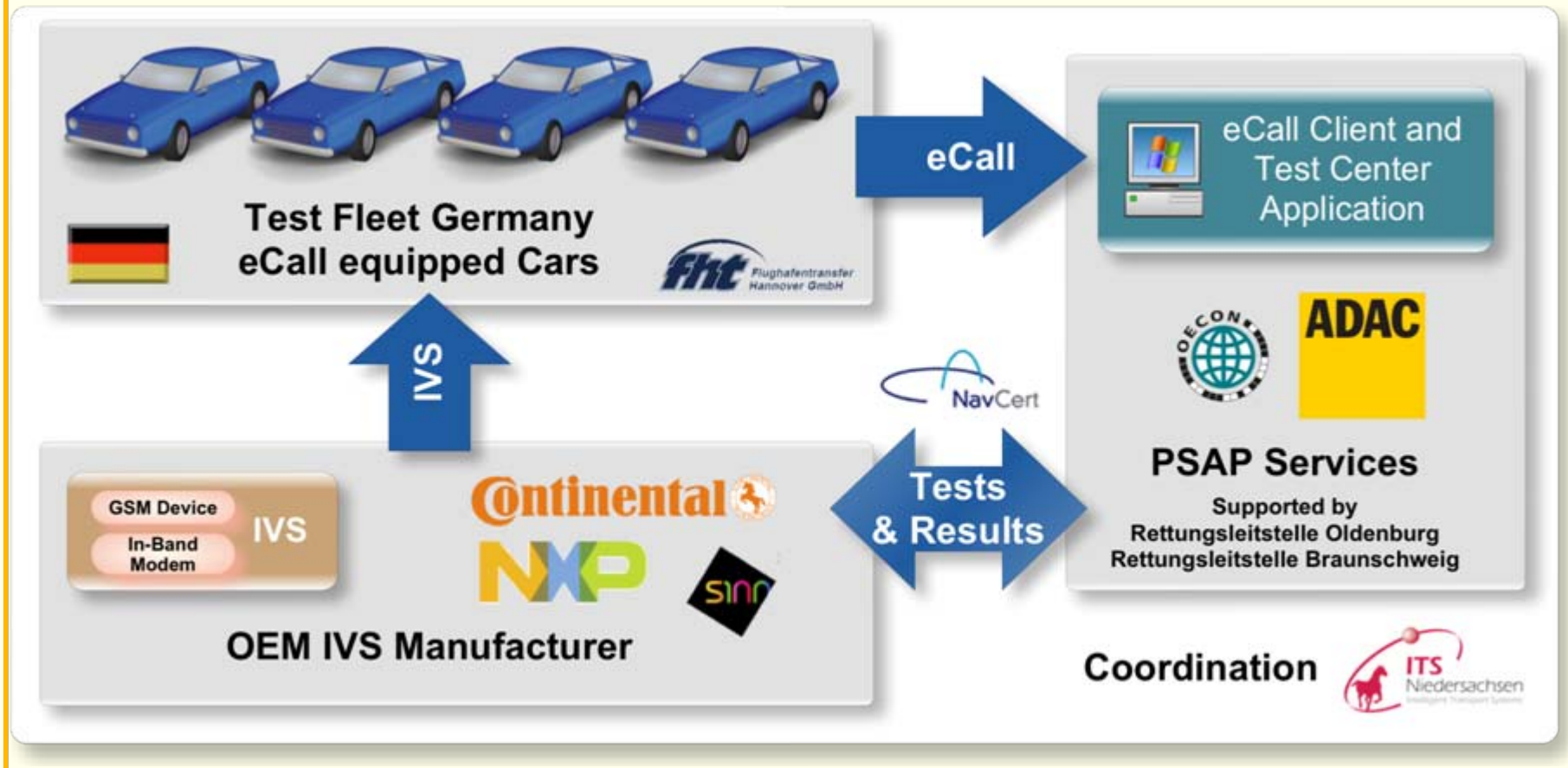
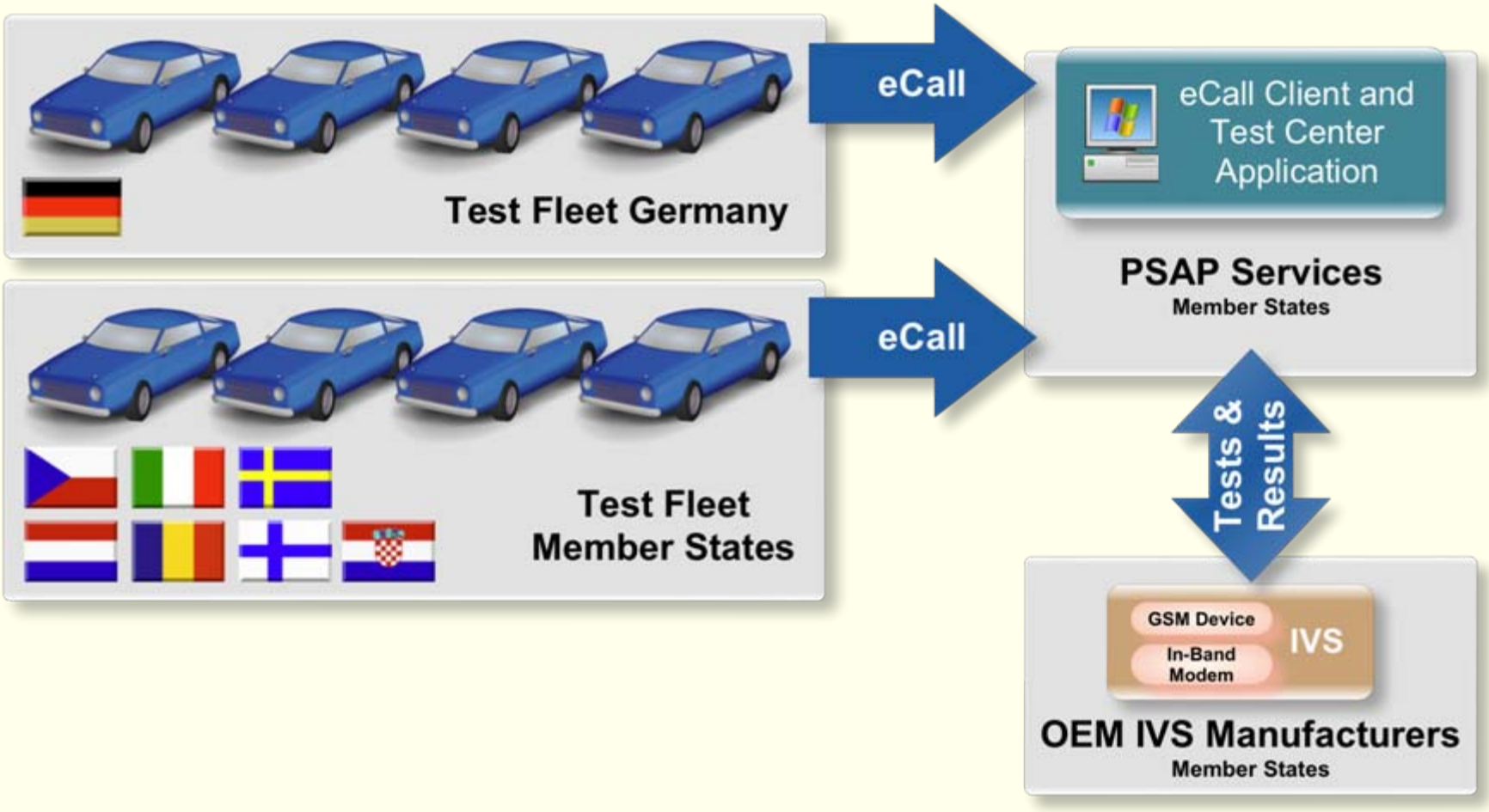
16654533	Braunschweig	0531-123456789
15564544	Braunschweig	0531-123456789

HeERO in Germany



HeERO International Development and Test Phase



WP2.1 State-of-the-art analysis

- **Description:** Analyse the German current PSAP situation with many different regional PSAP structures, finding similarities and differences in structures, ownership, operation modes and infrastructure.

- **Deliverable Date:** 03/11

- **Partners:** OECON, NavCert, ADAC, NXP, S1nn, CONTI with PSAPs Braunschweig/Oldenburg

WP2.2 eCall systems functionalities' specification

- **Description**: Reviewing the specifications and comparing them to the results of the real pilots. Discussing the specifications with the related partners for IVS, mobile communications and PSAP. Creating a report containing the specification's feasibility and necessary modifications or addendums. Integrating later specification changes

- **Deliverable Date: 03/11**

- **Partners**: **OECON**, NavCert, S1nn, NXP, Conti

WP2.3 HW Installation and SW implementation

- **Description**: Installing pilots on the associated German PSAPs. Pilot software includes a complete eCall-enabled PSAP software with data protocols, MSD and digital map visualisation and additional modules for testing purposes. Installing a VIN decoder server, Installing an interface to the Niedersachsen Traffic Management Center in Hannover. Upgrading Hardware and Software technology (mainly telephone and computer equipment) in the PSAPs to enable eCall

- **Deliverable Date: 04/11**

- **Partners**: **OECON,** FHT, S1nn, NXP, Conti with PSAPs Braunschweig/Oldenburg

WP2.4 System verification

- **Description:** Testing the eCall integrity on the PSAP side using the eCall field test software installed in the PSAPs. Field testing with reproducible test cases in different environments. Creating reports for instant access to the testers. Also verifying the implementation of the Mobile Communication channel eCall Discriminator flag

- **Deliverable Date: 09/11**

- **Partners**: **NavCert**, OECON, NXP, S1nn, ADAC, CONTI

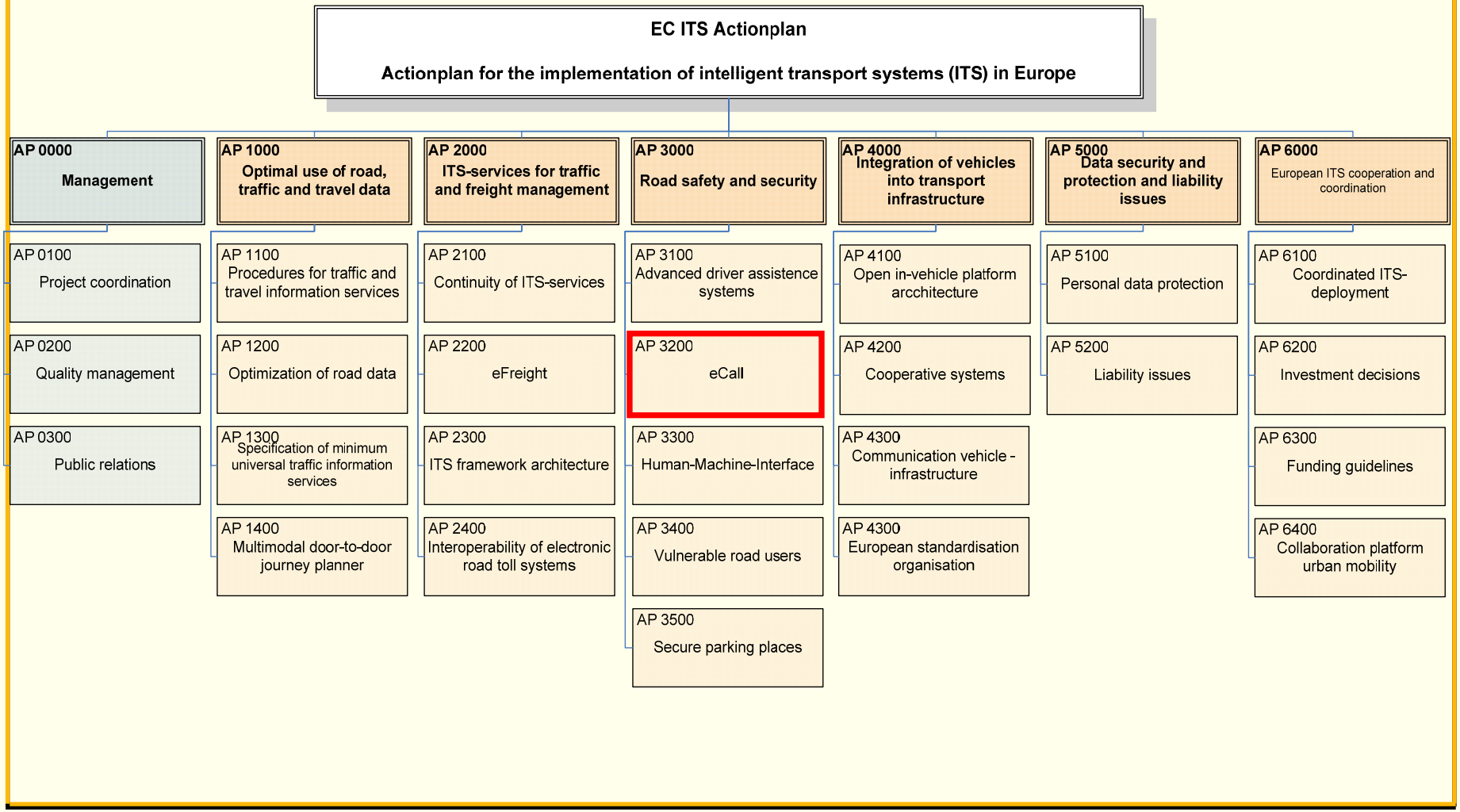
WP2: Operators' training

- **Description**: Installing pilots on the associated German PSAPs. Pilot software includes a complete eCall-enabled PSAP software with data protocols, MSD and digital map visualisation and additional modules for testing purposes. Installing a VIN decoder server, Installing an interface to the Niedersachsen Traffic Management Center in Hanover. Upgrading Hardware and Software technology (mainly telephone and computer equipment) in the PSAPs to enable eCall

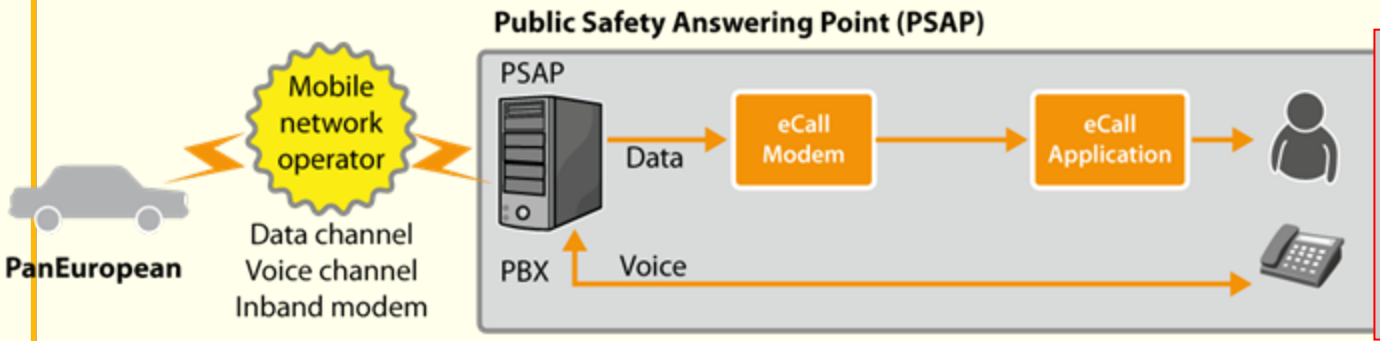
- **Deliverable Date: 09/11 und 10/12**

- **Partners**: **OECON**

ITS Action Plan



Pan-European eCall Solution

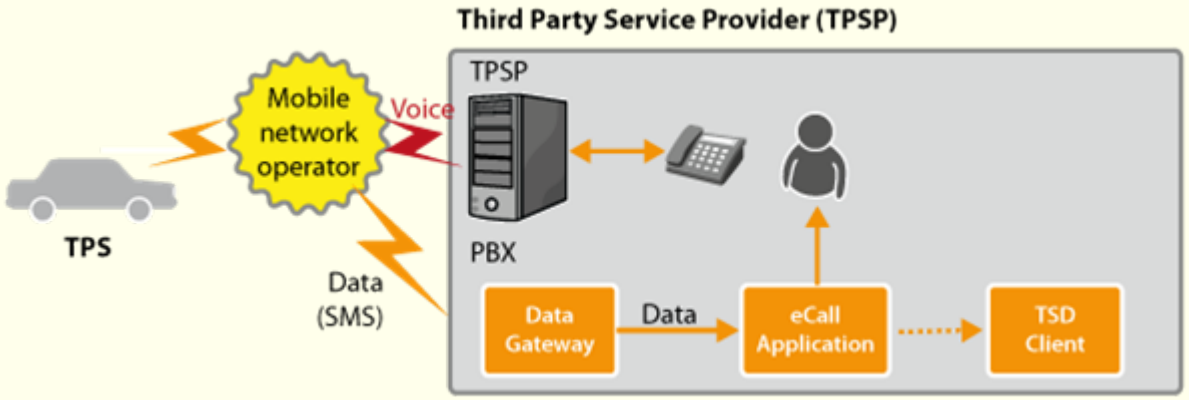


Minimum Set of Data
- Time stamp
- Precise Location
- Direction of travelling
- Vehicle identification
- eCall qualifier
- Service Provider Identifier

Functionality in case of a serious accident

- **The in-vehicle eCall system dials e112 (best radio contact is used, independent from the MNO contract)**
- **The MNO routes the in-vehicle eCall to the responsible PSAP**
- **PSAP:**
  - **The PSAP-PBX prioritises the incoming eCalls according fifo-principle and records all the information automatically**
  - **First: the Minimum Set of Data is transferred to the PSAP via the voice channel**
  - **Afterwards: the PSAP requests more detailed voice information from the driver if possible**
  - **Finally the PSAP organises the rescue service**

TPSP eCall Solution



Extended Set of SMS Data
- Time stamp
- Precise Location
- Direction of travelling
- Vehicle identification
- eCall qualifier
- Service Provider Identifier
- Trace data
- …

Functionality in case of a serious accident

- **The in-vehicle eCall system dials the TPSP number (independent from current position) and additionally sends out an SMS with relevant accident data**
- **TPSP:**
  - **The TPSP-PBX prioritises the incoming eCalls according and records all the information automatically.**
  - **The TPSP requests more detailed voice information from the driver if possible. The SMS Data is analysed for detailed assessment of accident and injury severity.**
- **Finally the TPSP organises the rescue service via local PSAP involvement.**

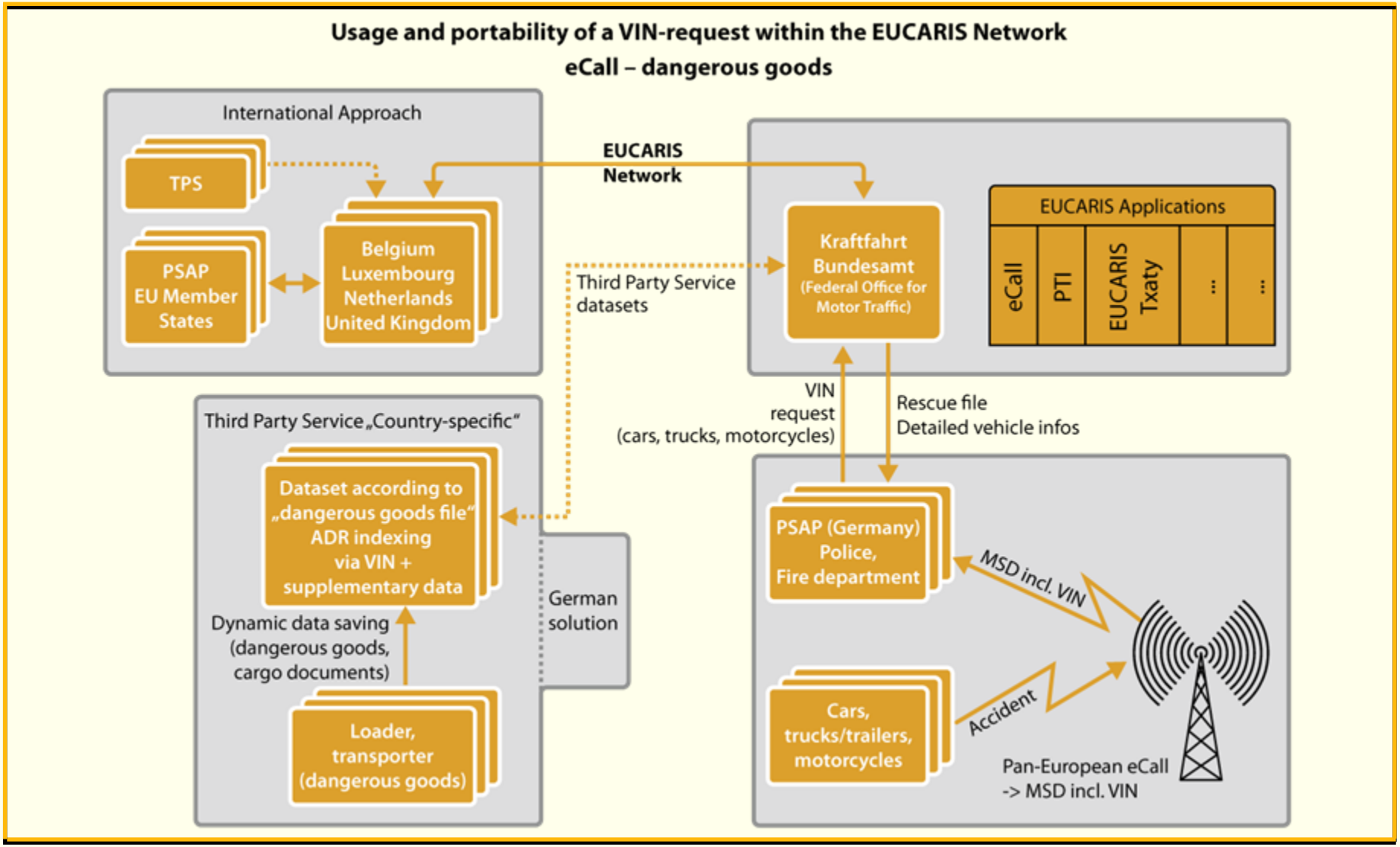
Dangerous Goods Monitoring (TPS) [1]

Dangerous goods monitoring through an enhanced eCall functionality by taking into account

- vehicle classes:
  e.g. two-wheeler, bus, tram, truck, special vehicle
- configuration:
  e.g. tractor, trailer/construction, snow plough
- payload:
  e.g. passengers, dangerous goods, dangerous waste, abnormal load
  (waybill, classification and labelling, accident procedures sheet)
- extended accident information:
  e.g. accident trace, accidental damage, accident and injury assessment

dangerous good classification 1 (explosive)
Hazard ID Number 33 (flashpoint < 23 °C)
UN-Number 1203 (petrol)

Dangerous Goods Monitoring (TPS) [2]



Next Actions To Be Taken

- Bi-national taskforce for outlining the R&D objectives
- Definition of German focus & French focus
- Acquisition of project partners in Germany and France
- Development of the German proposal
- Development of French proposal

- **National and International eCall-days 21-22 September 2011 – Berlin**
- **Lyon – ITS Congress – June 2011**
- **Orlando – ITS World Congress – October 2011**
- **EeIP Platform Meeting Brussels – September 2011**

- ..... Thanks a lot for your attention and see you soon !