



Harmonised eCall European Deployment

eCall for Commercial Vehicles

SpeedCHAIN 2017

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Prague Czech Republic

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ERTICO



This project is funded
by the European Union



Agenda

- The eCall Chain
- Why eCall for Commercial Vehicles?
- Options
- Demo Tour
- Questions



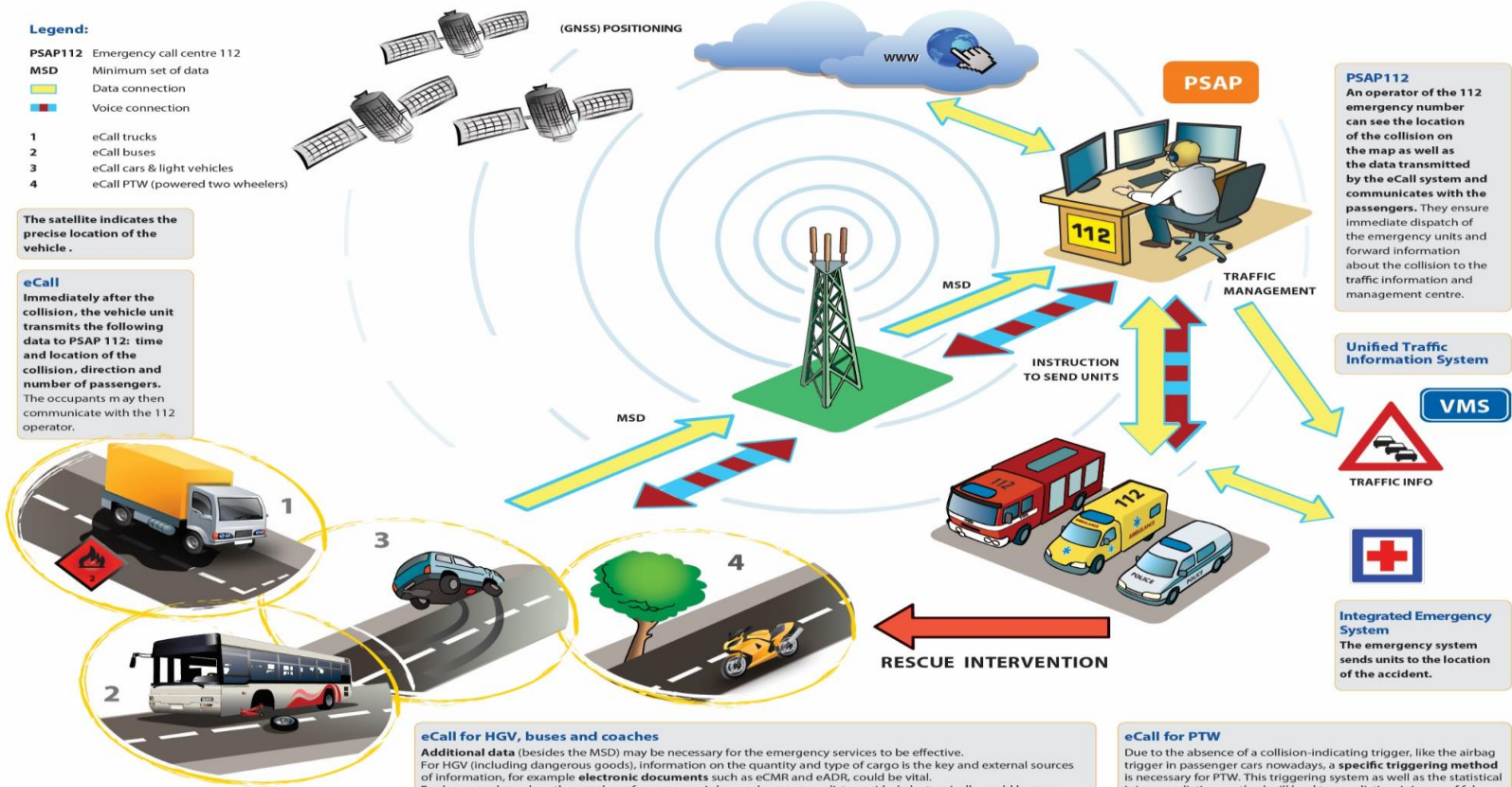
The eCall chain

Legend:

- PSAP112 Emergency call centre 112
 - MSD Minimum set of data
 - Yellow arrow Data connection
 - Red and blue arrow Voice connection
- 1 eCall trucks
 - 2 eCall buses
 - 3 eCall cars & light vehicles
 - 4 eCall PTW (powered two wheelers)

The satellite indicates the precise location of the vehicle.

eCall
Immediately after the collision, the vehicle unit transmits the following data to PSAP 112: time and location of the collision, direction and number of passengers. The occupants may then communicate with the 112 operator.



PSAP112
An operator of the 112 emergency number can see the location of the collision on the map as well as the data transmitted by the eCall system and communicates with the passengers. They ensure immediate dispatch of the emergency units and forward information about the collision to the traffic information and management centre.

Unified Traffic Information System

VMS
TRAFFIC INFO



Integrated Emergency System
The emergency system sends units to the location of the accident.

eCall for HGV, buses and coaches
Additional data (besides the MSD) may be necessary for the emergency services to be effective. For HGV (including dangerous goods), information on the quantity and type of cargo is the key and external sources of information, for example **electronic documents** such as eCMR and eADR, could be vital. For buses and coaches, the number of passengers is key and passengers list provided electronically could be very useful for the rescue services.

eCall for PTW
Due to the absence of a collision-indicating trigger, like the airbag trigger in passenger cars nowadays, a **specific triggering method** is necessary for PTW. This triggering system as well as the statistical injury prediction method will lead to a realistic minimum of false positive and an acceptable level of false negative calls to PSAPs.

Why eCall for Commercial Vehicles?

Paint spillage



Beer anyone?



Highly disruptive



Livestock

Dangerous Goods



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Study of Commercial Vehicles

- Outcome of previous projects (HeERO 2, SafeTRIP, etc)
- Stakeholder engagements
 - PSAP, First Responders, CEN, Supplier Chain
 - (Workshop Espoo, Rotherham)
- Information availability
- Operational aspects
 - Vehicle changes, delivery impact
- Implementation challenges



eCall for Commercial Vehicles

- HGV: can have substantial impact, especially if carrying dangerous goods
- Information on the cargo helps PSAP make decisions on dispatching actions
- Special tools, protective gear, deviations ...

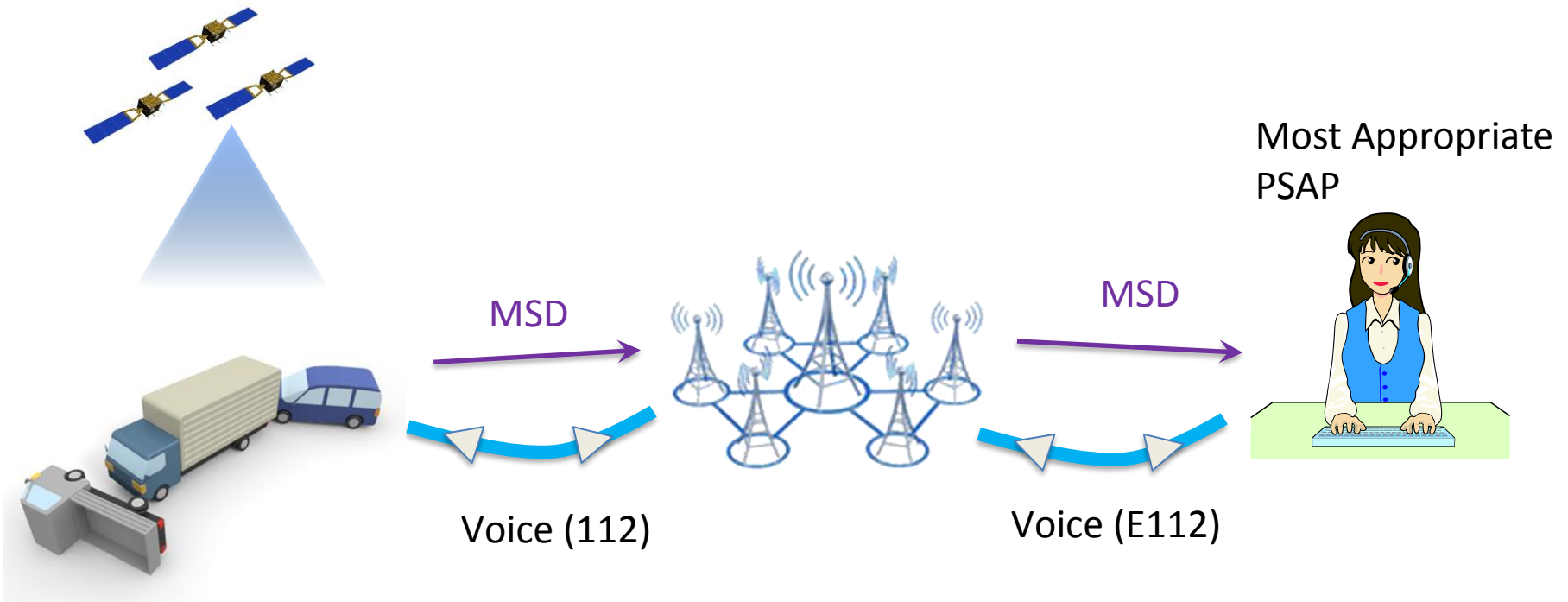


Schemas

- Technical Specification (TS) 16405 defines extension of the eCall MSD specific for commercial vehicles.
- Schema A – Could be used for specific Dangerous goods vehicles
 - Fixed in the IVS
- Schema B – Cargo information from external source
- Optional additional data

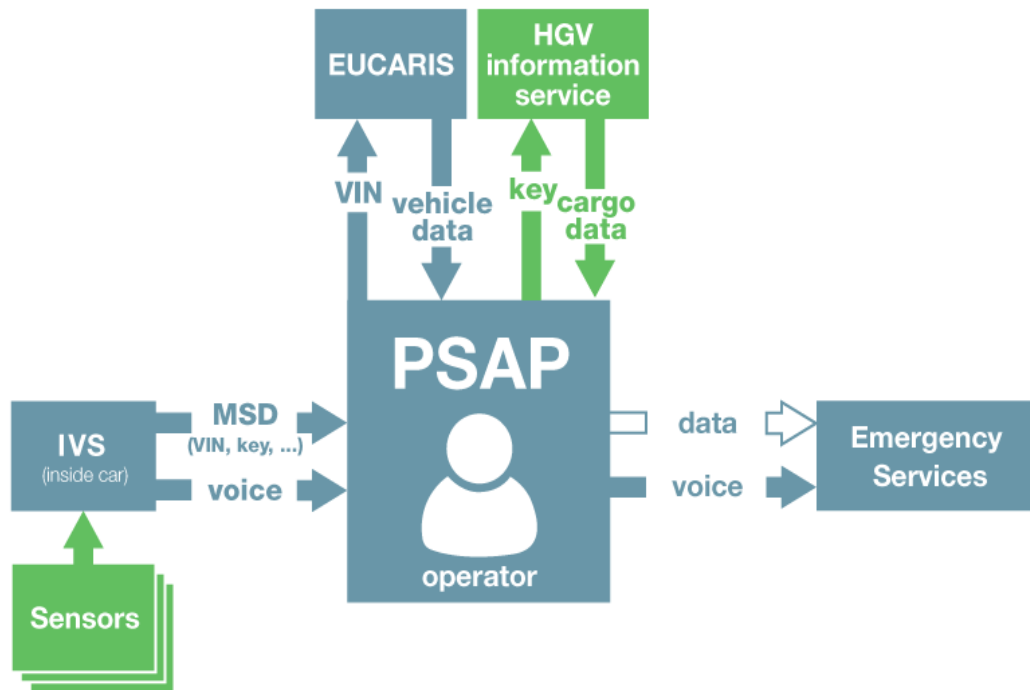


eCall for Commercial Vehicles (using Schema A)



Vehicle in
incident

Approach based on Schema B

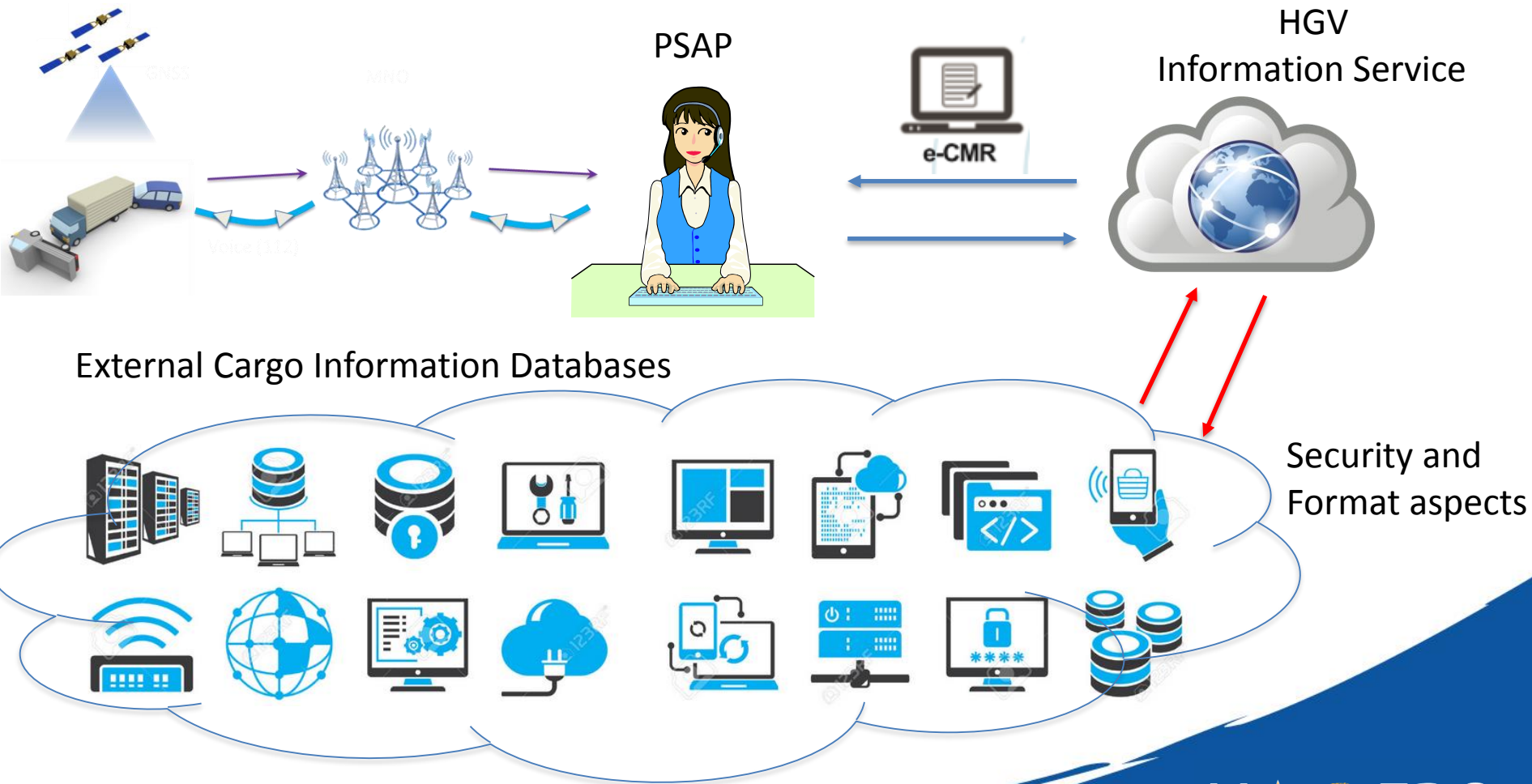


Optional Additional Data				
Oid	RELATIVE Oid		M	Fixed value: 1.2
data		encoded as OCTET STRING		
commercialVehicleType	ENUM		M	The supported types are: - unknown - tanker, one compartment - tanker, more compartments - truck, (stukvracht)
consignorPhone	NumericalString		M	Consignor contact telephone number or telephone number displayed on goods containers as contact number in case of emergency. NOTE: the number should be specified international number, thus including the country- and area code (without zero)
alarmInfo			O	Information about sensors present is encoded. Each sensor is optional and should be left out if not present. If a sensor is generating an alarm its value should be set to true, if a sensor is available but not generating an alarm its value is false IMPORTANT NOTE: Emergency services need to be aware that the absence of an alarm indicates only that there was no alarm showing as activated at the time of compiling the data. Alarms raised post the population of/sending of the MSD will not be transmitted. These codes therefore only indicate status before or at the point of incident, and cannot be taken as the current status post incident.
leakageAlarm	BOOLEAN		O	True if leakage has been detected
fireAlarm	BOOLEAN		O	True if fire has been detected
highTempAlarm	BOOLEAN		O	True if high temperature has been detected
lowTempAlarm	BOOLEAN		O	True if low temperature has been detected
shockAlarm	BOOLEAN		O	True if shock has been detected

Leakage and other alarms indicators are sent

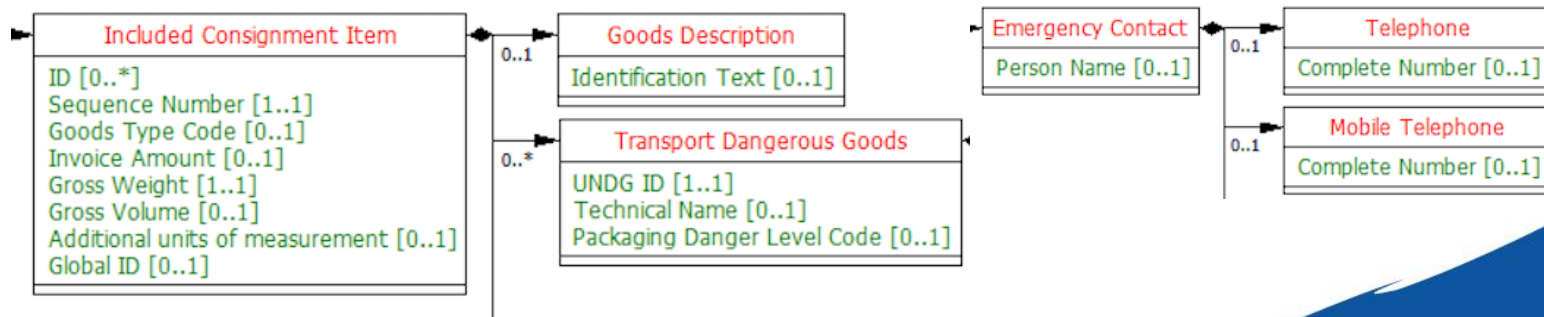


eCall for Commercial Vehicles (using Schema B)



Access to cargo information

- External (trusted) sources, data security
- Single data format: e-CMR
- UN/CEFACT data model for standardised electronic consignment note and appropriate message schemas (end 2017)



I_HeERO Proof of Concept and Demo Tour



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Questions



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