Tracking and Tracing of Dangerous Goods in the Medical Sector

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DG-TRAC

Tracking & Tracing of Dangerous Goods in the Medical Sector

esa

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Agenda

- Dangerous goods tracking and tracing in the medical sector
- Dangerous Goods handling in ecall – HeERO2 project

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DG-Trac Project Introduction

DG-Trac:

Tracking and Tracing of Dangerous Goods in the medical sector

ESA feasibility study (12 months duration)
Started February 2012

Partners:

- HITEC Luxembourg (prime contractor)
- EPT Luxembourg
- SnT, University of Luxembourg
- CRP Henri Tudor
- Centre des Technologies de l'Information de l'Etat
- T&E Gefahrgutlogistik

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Motivation (1)

- More and more dangerous goods' transports in the medical sector
- Centralisation of Services e.g.
  - Central Laboratories
  - Central Sterilisation
- Consequences
  - Potentially Infectious blood samples transported between hospitals and laboratories
  - Used surgical instruments transported between hospitals and Sterilisation Centre
- UN Regulation: ADR 2013 – ("Accord européen relatif au transport international des marchandises dangereuses par route")

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Motivation(2)

Important rules from ADR:

- The sender of a dangerous goods' transport is responsible that the transport is executed in conformance with the legal requirements

- All personnel handling the dangerous goods, and those involved in the transport, have to be trained and certified how to handle the specific dangerous goods

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Requirements

- The DG-TRAC Service shall:
  - ensure and document all steps of a dangerous goods transport by tracking that the transport is executed in conformance with the legal rules
  - allow public safety services to access the transport location and documentation in the case of an incident
  - support the automatic alerting of the 112 centre in the case of an accident and access to location information in mobile command centers. (eCall support)

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DG-TRAC Basic Services 1

- The DG-TRAC Service offers:
  - Continuous real-time tracking of the dangerous good from the sender to the receiver
  - Provision of all necessary information how to handle dangerous goods
  - Check of the certifications of all involved persons
  - Secured Hand-over (with legally certified electronic signatures)

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DG-TRAC Basic Services 2

- Creation of all necessary transport documentation in electronic form or for printing and a final reporting
- Access to transport information for public safety services in case of an incident
- Conformance to data privacy and security rules
- Interfaces for public safety services (eCall support)

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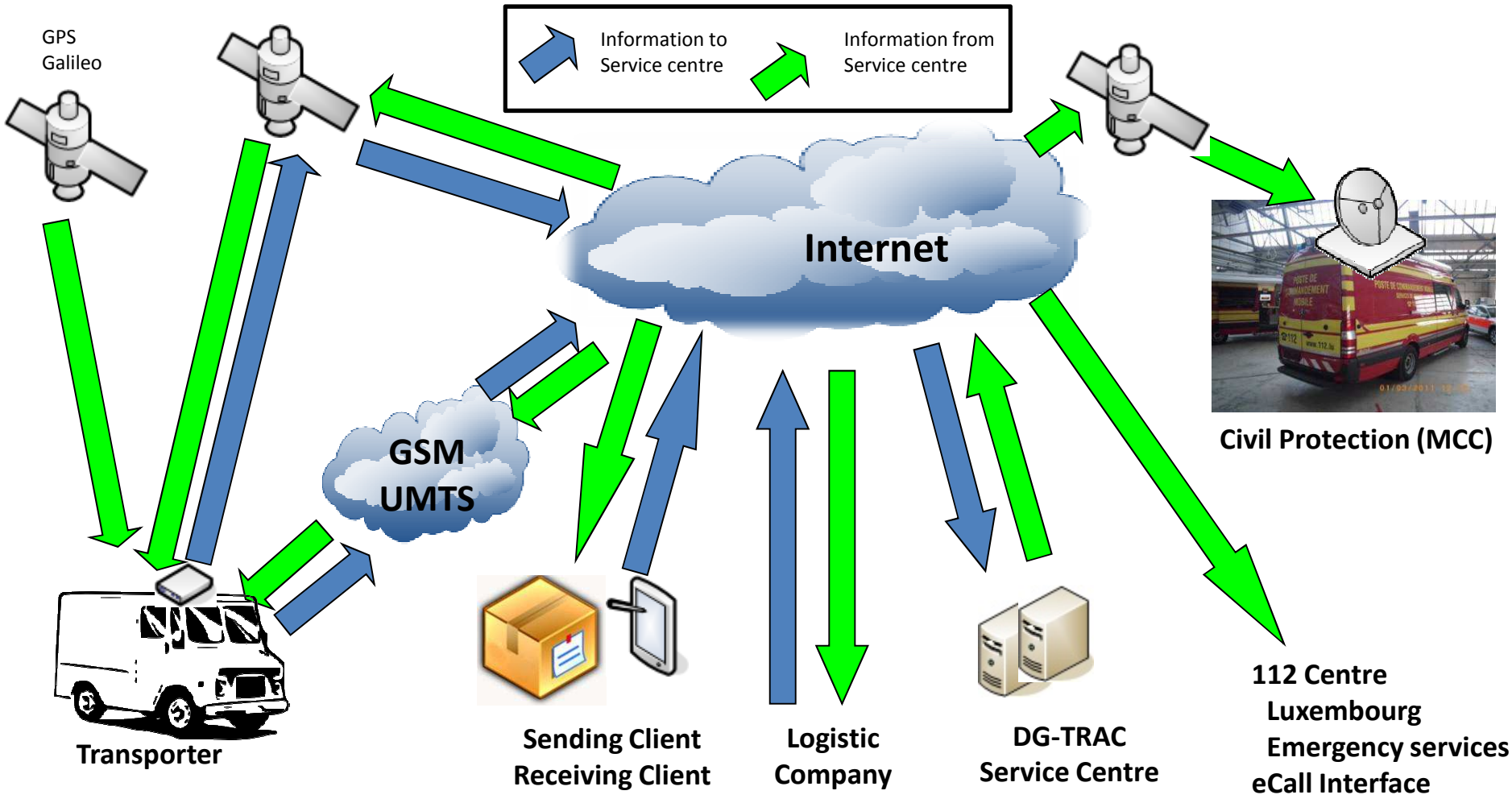
DG-Trac ARCHITECTURE



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Next Steps

- Demonstration project with 2 pilot users is under negotiation with ESA
- Pilot Implementation expected for 2015
- Operational Service 2016
- Standardisation of eCall Interface in progress –> HeERO2 project

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HEERO2

- Implementing ecall pilots in Europe – extension of HeERO
- 5 new member states
  - Belgium
  - Bulgaria
  - Denmark
  - Luxembourg
  - Spain
  - Turkey
- Start 1.1.2013
- End 31.12.2014

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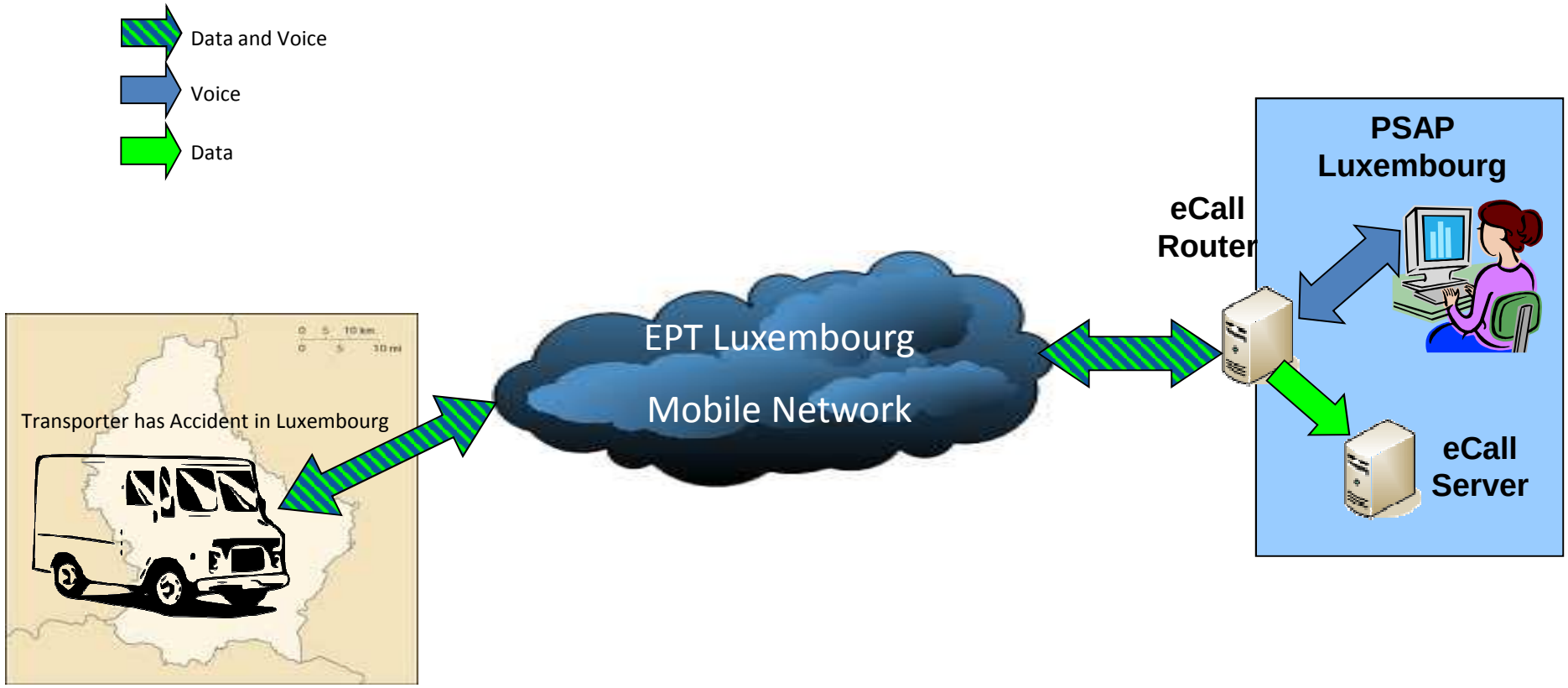
HEERO2

- Implementing ecall pilots in Europe – extension of HeERO
- 5 new member states
  - Belgium
  - Bulgaria
  - Denmark
  - **Luxembourg – Heavy Good Vehicles / Dangerous Goods**
  - Spain
  - Turkey
- Start 1.1.2013
- End 31.12.2014

LUXEMBOURG PILOT SITE ARCHITECTURE



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EMERGENCY SERVICES AND DANGEROUS GOODS

In case of an accident emergency service needs to know

- Are dangerous goods involved ?
- What type of dangerous good is involved ?
- How much of this dangerous good is loaded in the vehicle?
- How to handle this dangerous good
- Is a vehicle with dangerous goods nearby ?

DANGEROUS GOODS AND ECALL (1)

Information about Dangerous Goods is stored in the IVS and send with the additional data of the MSD to the PSAP

- no new mechanism needed
- easy to implement in PSAP

Issues

- How to update the information in the IVS ?
- To ensure that the information is up to date?
- Only limited number of dangerous good types possible

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DANGEROUS GOODS AND ECALL (2)

A link to transport documentation is stored in the IVS and send with the MSD to the PSAP

- PDF of transport documentation is easy to create
- PSAP has to open the PDF only
- All necessary information available

Issues

- How to ensure that the information is up to date?
- Different Format of documents, foreign language
- Additional information is difficult to access

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DANGEROUS GOODS AND ECALL (3)

Dangerous goods are traced by a tracking service (e.g. DG-Trac)

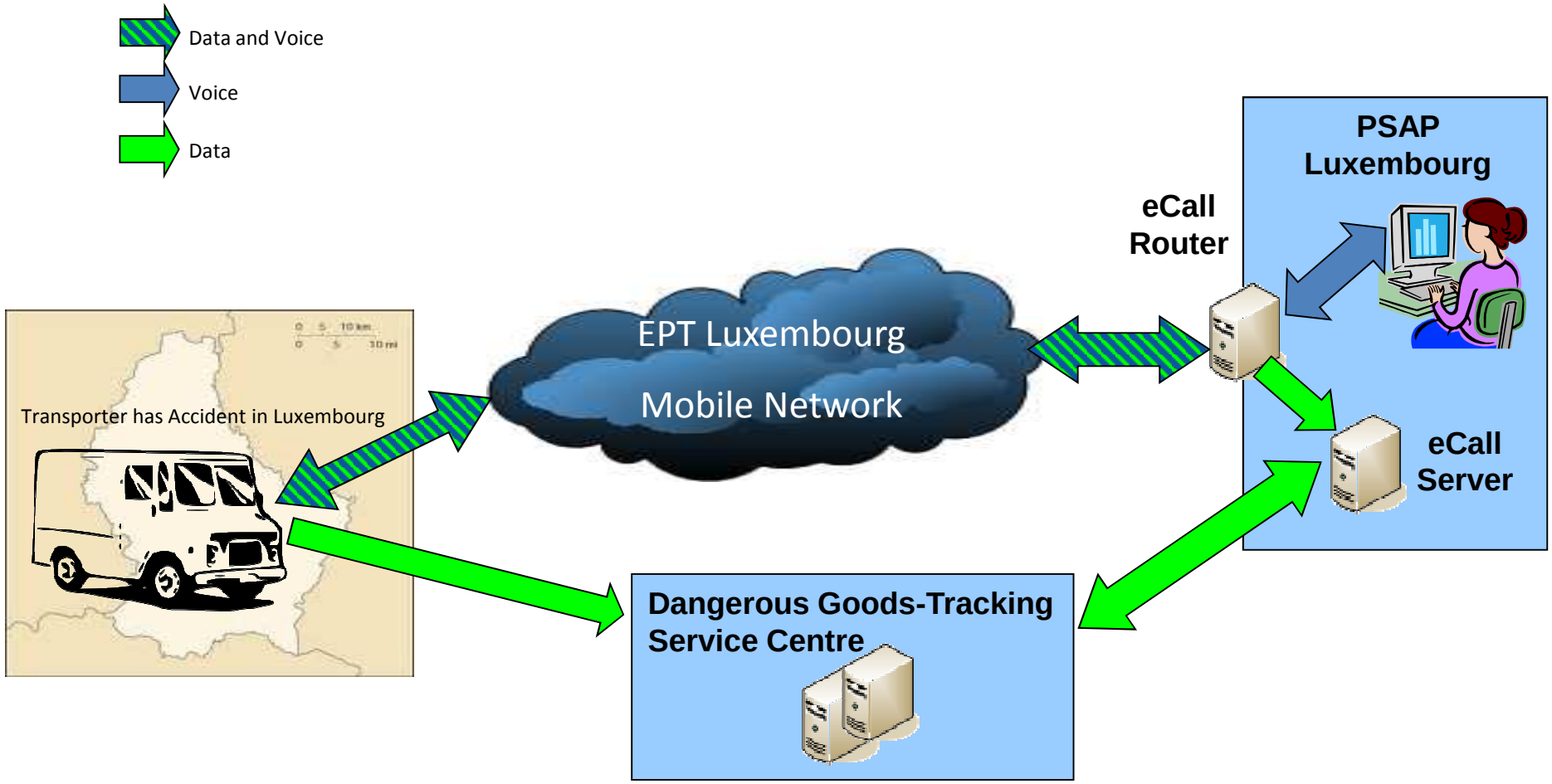
Link to webservice of the tracking service is stored in MSD

- Tracking service is integrated into the transport process – information is always uptodate
- PSAP has to call the webservice
- All necessary information available
- Additional information can be provided automatically

Issues

- Tracking service needs to be implemented and used
- Central service may not be accepted by users

LUXEMBOURG PILOT SITE ARCHITECTURE



Next steps

New project proposal HeERO3:
using existing freight databases to inform emergency services

Thank you for your attention

Questions - Discussion