

Tracking and Tracing of Dangerous Goods in the Medical Sector



IAP Workshop Rome - April 18th, 2013

Harold Linke - HITEC Luxembourg



DG-TRAC

Tracking & Tracing of
Dangerous Goods
in the Medical Sector



- Background & Introduction
- DG-TRAC Services
- DG-TRAC Architecture
- Summary

- 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”)

ADR provides rules how to

- to classify DGs
- to pack DGs for transport purposes and
- to label DGs

E.g. UN2814

the substance may inflict permanent hazards to the health of a person/animal (i.e. a disability) or a potentially fatal disease in case of contact

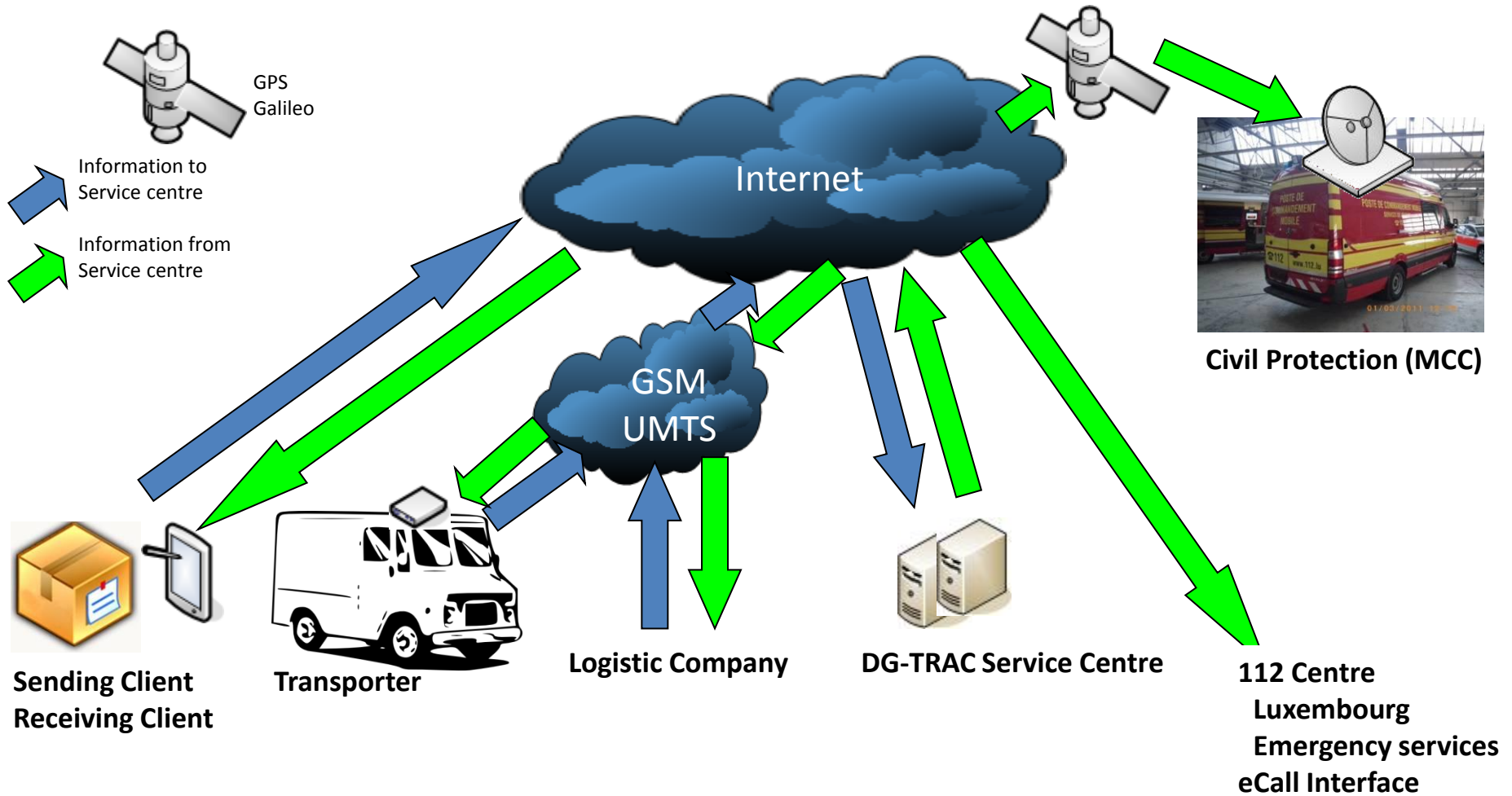
Important rules from ADR:

- 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

- 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)

- The DG-TRAC Service offers a:
 - 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 proven electronic signatures)

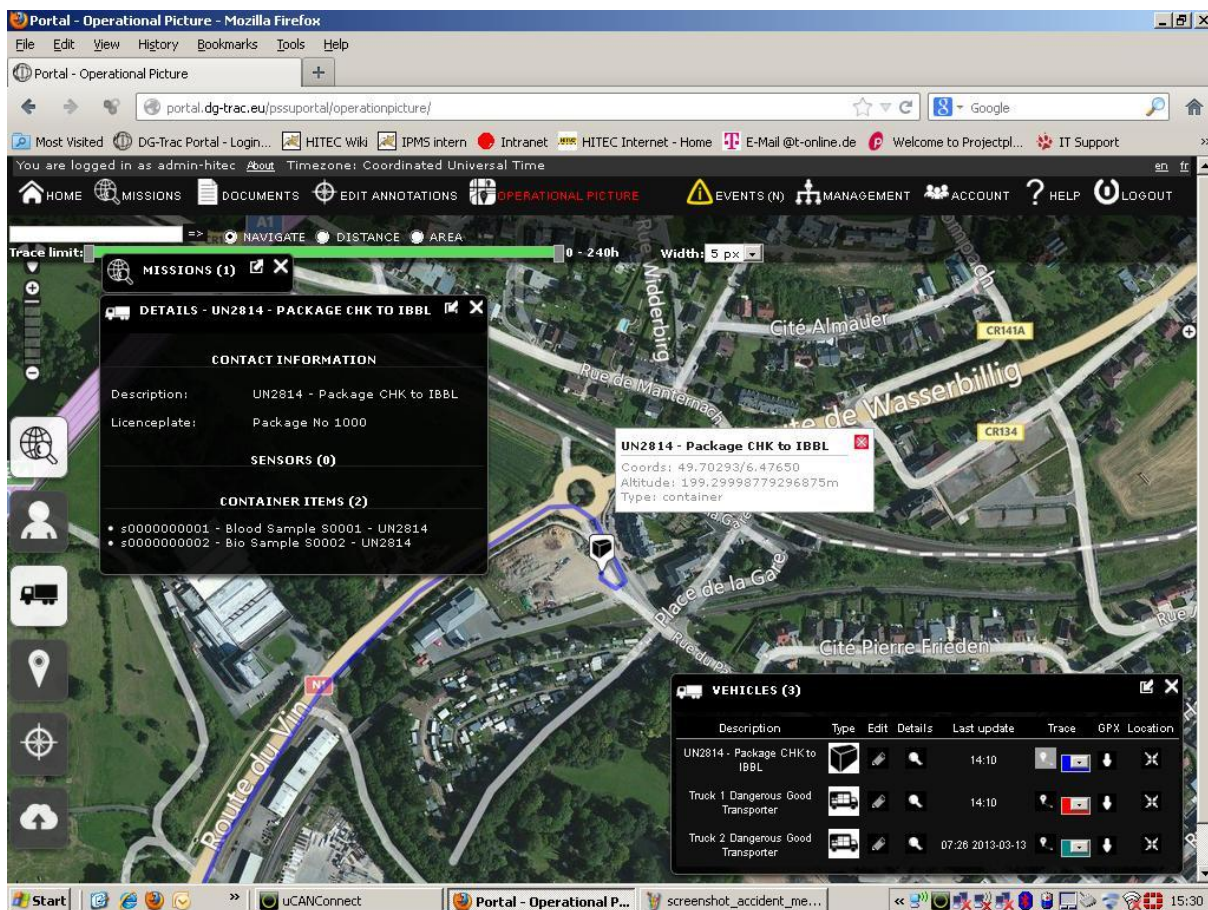
- Creation of all necessary transport documentation in electronic form or for printing and a final reporting
- Access to transport information for public safety services in case of an incident
- Conformance to data privacy and security rules
- Interfaces for public safety services (eCall support)



Mobile Command Centre



Mobile Command Centre Screenshot PoC



Portal - Operational Picture - Mozilla Firefox

portal.dg-trac.eu/pssuportal/operationpicture/

You are logged in as admin-hitec

MISSIONS (1)

DETAILS - UN2814 - PACKAGE CHK TO IBBL

CONTACT INFORMATION

Description: UN2814 - Package CHK to IBBL
Licenceplate: Package No 1000

SENSORS (0)

CONTAINER ITEMS (2)

- s0000000001 - Blood Sample S0001 - UN2814
- s0000000002 - Bio Sample S0002 - UN2814

VEHICLES (3)

Description	Type	Edit	Details	Last update	Trace	GPX	Location
UN2814 - Package CHK to IBBL				14:10			
Truck 1 Dangerous Good Transporter				14:10			
Truck 2 Dangerous Good Transporter				07:28 2013-03-13			

15:30



UN2814 - Package CHK to IBBL

Coords: 49.70293/6.47650
Altitude: 199.29998779296875m
Type: container

15:20

- DG-TRAC benefits
 - Correct execution of dangerous goods transports in the medical sector
 - Documentation of all checks done and steps executed for the transport
 - Tracking of the transport in real-time
 - Alerting of public safety service (112 centre) in case of an accident, including the provision of the necessary information
 - Very low CAPEX
 - Reasonable OPEX
- Follow-on:
 - Demonstration Project to implement the DG-Trac Service

- HITEC Luxembourg (prime contractor)
- Subcontractors
 - EPT Luxembourg
 - SnT, University of Luxembourg
 - CRP Henri Tudor
 - CTIE
 - T&E Gefahrgutlogistik

Thank you for your attention

Questions - Discussion