

**DOGIES, EDMOND,  
MONET**

WG on Telematics in DG Transportation



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## DangerOus Goods Incident Early Warning System

The system is composed of three basic modules:

- Module for tracking of consignments and transport units – information about the position will be gathered from satellite navigation systems, RFID gate networks, mobile devices and RU's internal systems.
- Module for generating EWMS (Early Warning Message System) messages including its remote control.
- Module for addressed sending of EWMS – communication gateway (CGW)



## Gains of telematics application DOGIES:

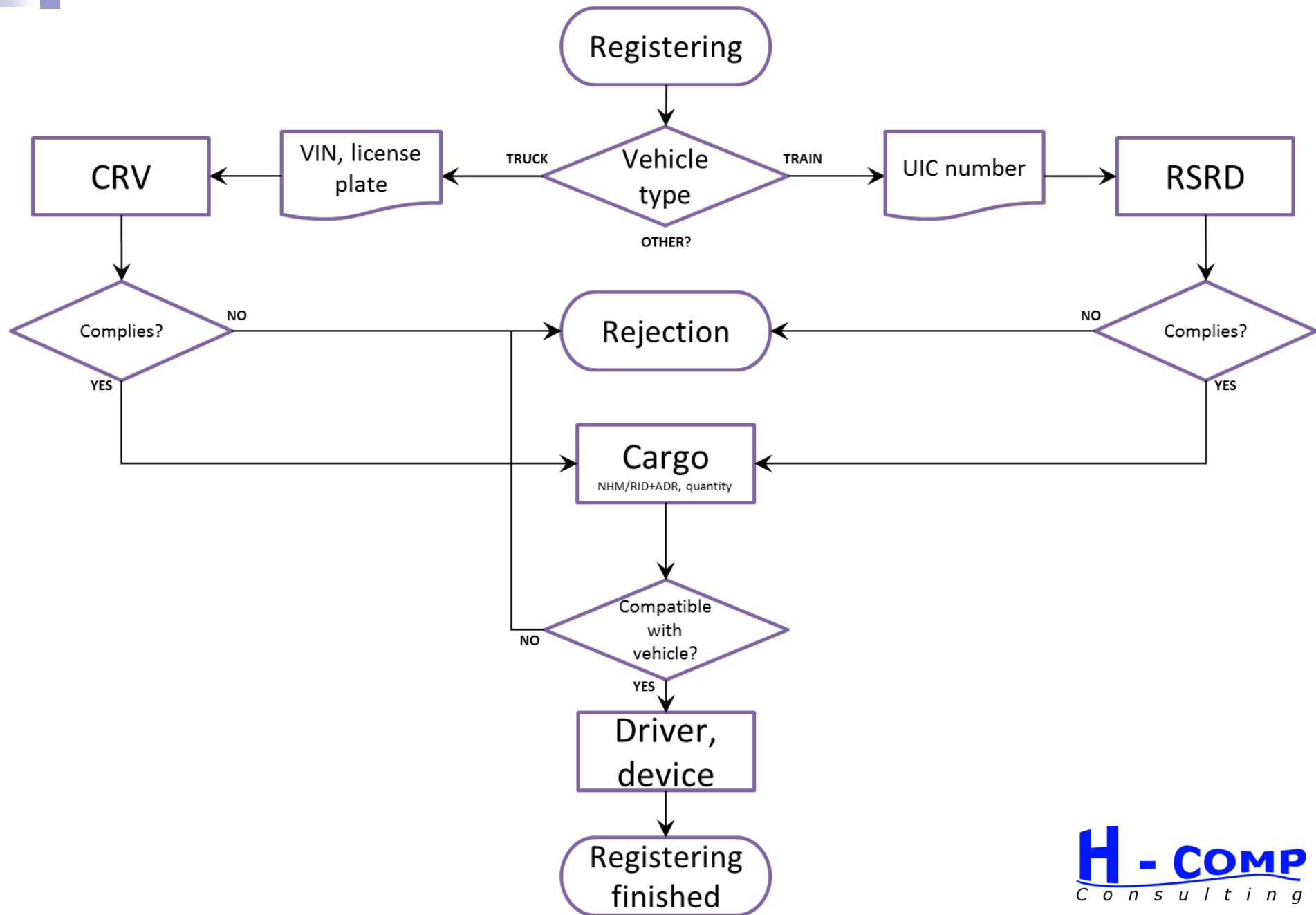
- Improvement of the overview of movement of consignments with dangerous goods on ground traffic networks, air transport interchange terminal, naval and inland waterway terminals.
- Lowering of error count in the monitoring process itself
- Improvement of reliability and correctness of information about a car position and consignment
- Availability of information about position and status of a consignment of a car in real time for state authorities, integrated rescue system, army, etc.
- Decision support in case of an incident or an accident
- Automated broadcast of early warning e-Call in exact defined way to chosen recipient.



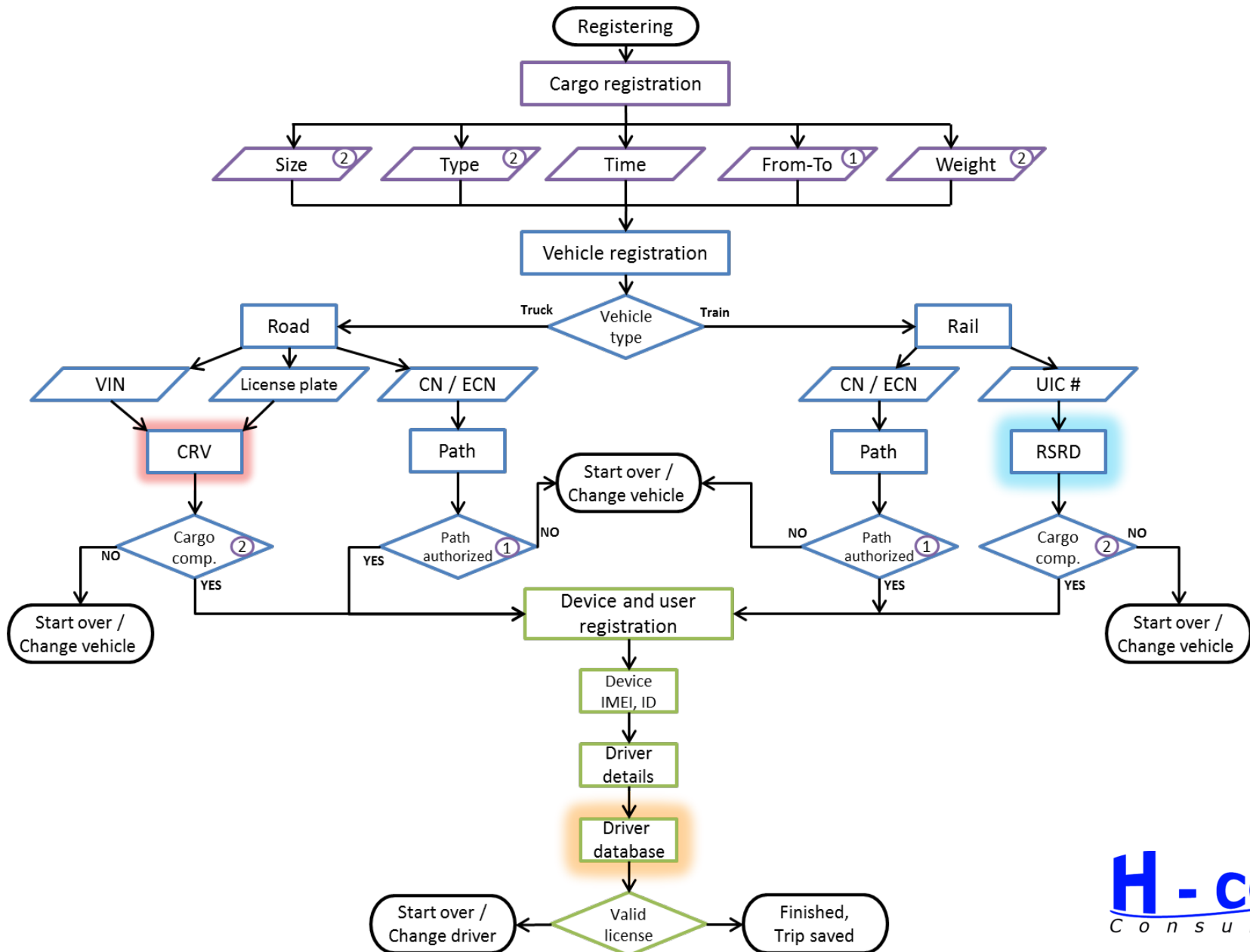
## Utilizing in processes:

- Monitoring and displaying the location of a transport unit with dangerous goods on a map or a spreadsheet
- Identification of dangerous goods (category, material safety data sheet (MSDS), etc.)
- Surveillance of transport and abiding regulations of the transport
- Giving directions for activity of state organs and municipalities in case of receiving EWMS
- Coordination of operation of integrated rescue system (IRS)
- Keeping to the assigned path of transport and all safety precautions
- Checking the original documents

# 1<sup>st</sup> level - identification



# 1<sup>st</sup> level - identification



**REGISTRACE ZARIZENI PRO KOMUNIKACI (ZK)**

Název:

IMEI:

SIM karta:

Telefoní číslo:

**MAJITEL (PROVOZOVATEL ZK) (vyplňuje se pouze tehdy, není-li shodný s dopravcem nebo provozovatelem vozidla)**

Obchodní jméno:

ID:

VAT-ID:

ADRESA:

Ulice, ČP:

Město:

Stát:

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**PROHLÁŠENÍ:**

Prohlašuji, že údaje uvedené v této části registrace jsou pravdivé a souhlasím s jejich kontrolou prostřednictvím dostupných veřejných registrů. Souhlasím rovněž se zpracováním všech údajů o firmě a osobách zastupujících firmu pro účely kontroly a evidence přeprav nebezpečného zboží. Jsem si vědom právních důsledků vyplývajících z uvedení nepravdivých nebo nesprávných údajů.

Souhlasím s prohlášením

Obchodní jméno:

ID:

VAT-ID:

ADRESA:

Ulice, ČP:

Město:

Stát:

**KONTAKTNÍ ÚDAJE:**

Odpovědná osoba dopravce:

Mobilní telefon 24/7: +

Email 24/7:

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**PROHLÁŠENÍ:**

Prohlašuji, že údaje uvedené v této části registrace jsou pravdivé a souhlasím s jejich kontrolou prostřednictvím dostupných veřejných registrů. Souhlasím rovněž se zpracováním všech údajů o firmě a osobách zastupujících firmu pro účely kontroly a evidence přeprav nebezpečného zboží. Jsem si vědom právních důsledků vyplývajících z uvedení nepravdivých nebo nesprávných údajů.

Souhlasím s prohlášením

**REGISTRACE RIDICE**

Jméno:

Příjmení:

**ZAMĚSTNAVATEL (vyplňuje se pouze tehdy, není-li shodný s dopravcem nebo provozovatelem vozidla)**

Obchodní jméno:

ID:

VAT-ID:

ADRESA:

Ulice, ČP:

Město:

Stát:

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ŘP:

Platnost do:

Kategorie:

Poslední zdravotnická prohlídka:

Poslední pravidelné zákonné školení:

OP (ID)/Cestovní pas:

Platnost do:

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**PROHLÁŠENÍ:**

Prohlašuji, že údaje uvedené v této části registrace jsou pravdivé a souhlasím s jejich kontrolou prostřednictvím dostupných veřejných registrů. Souhlasím rovněž se zpracováním všech údajů o firmě a osobách zastupujících firmu pro účely kontroly a evidence přeprav nebezpečného zboží. Jsem si vědom právních důsledků vyplývajících z uvedení nepravdivých nebo nesprávných údajů.

Souhlasím s prohlášením

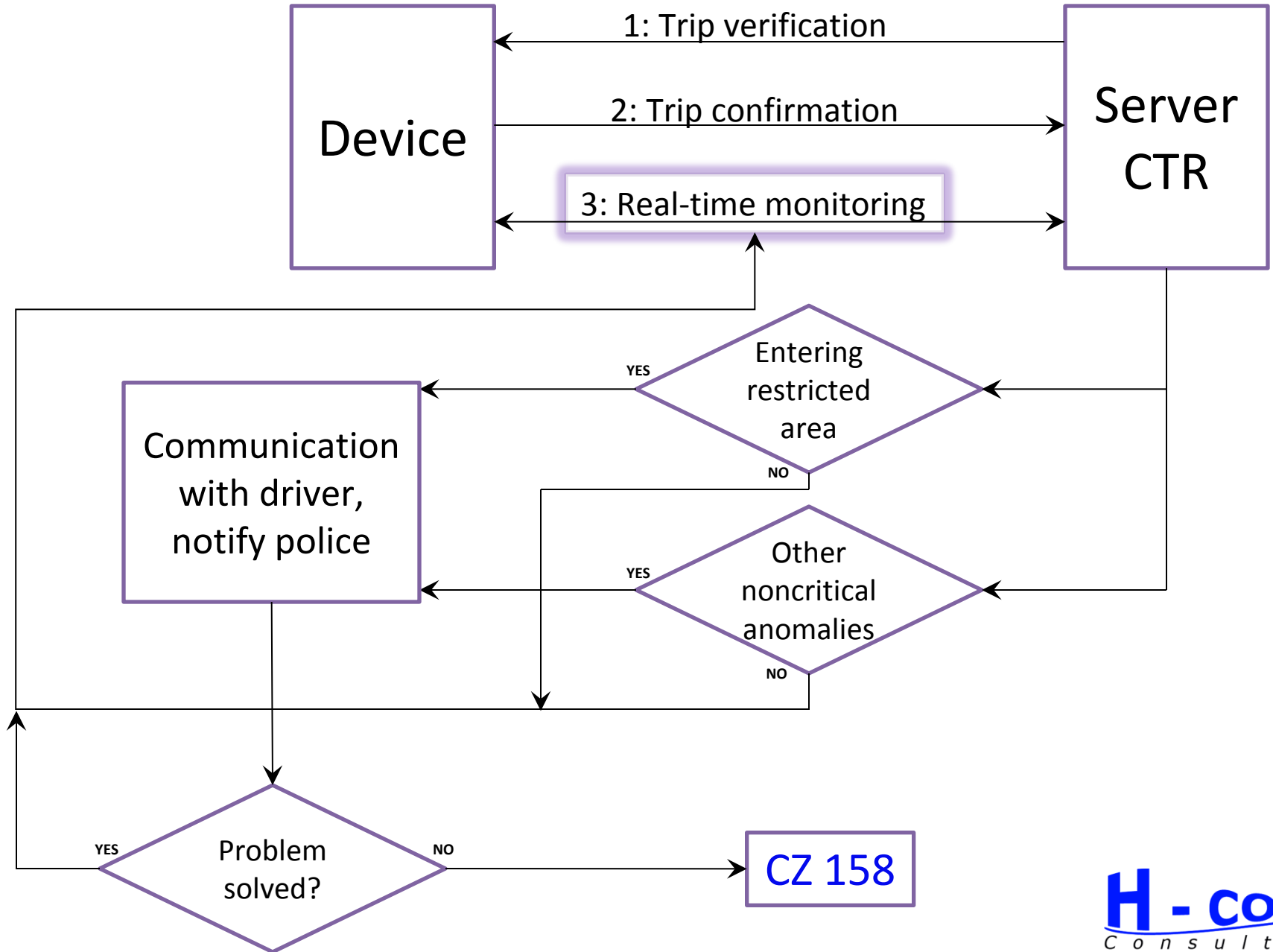


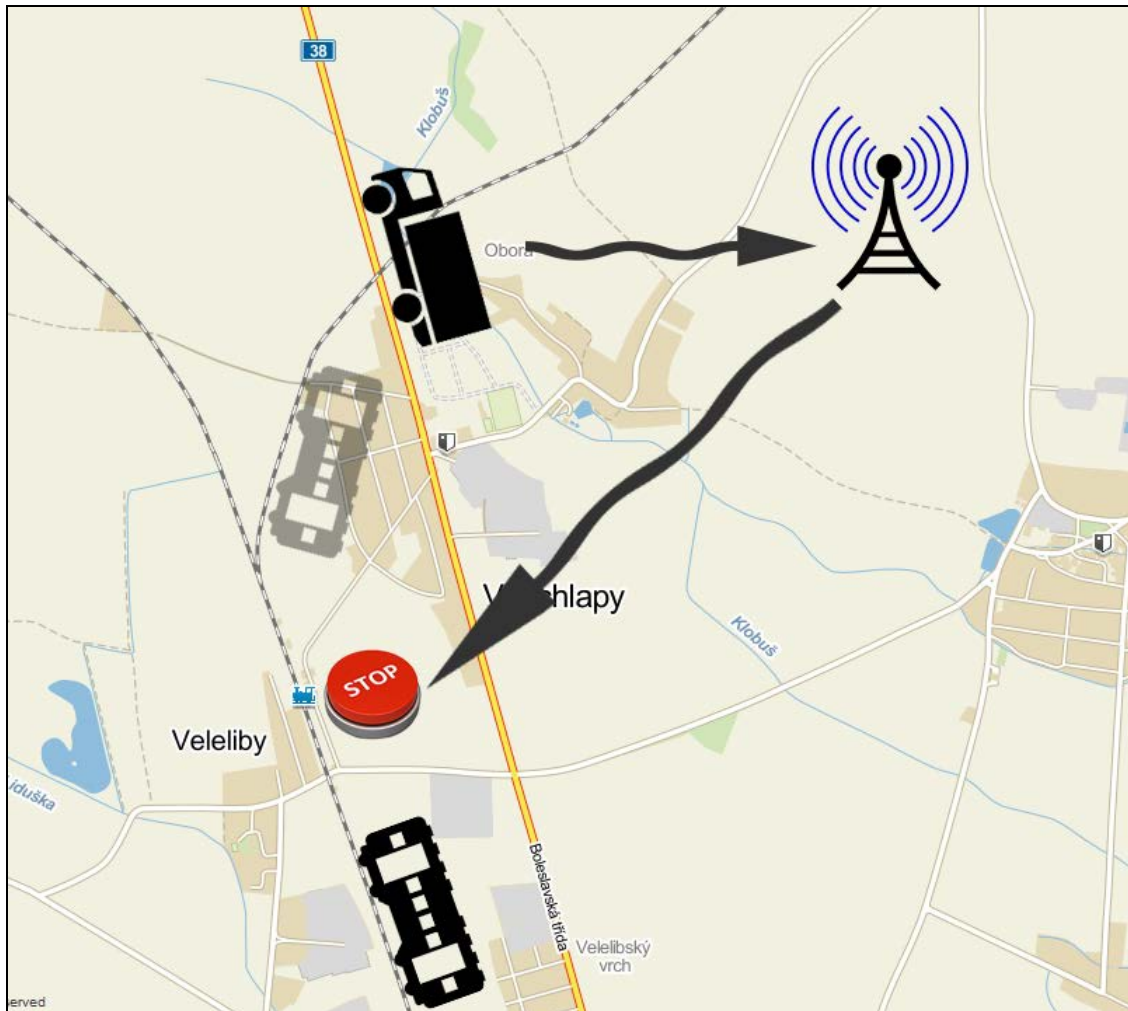


- Warning
- Alert
- Danger
- Tunnel
- Water source

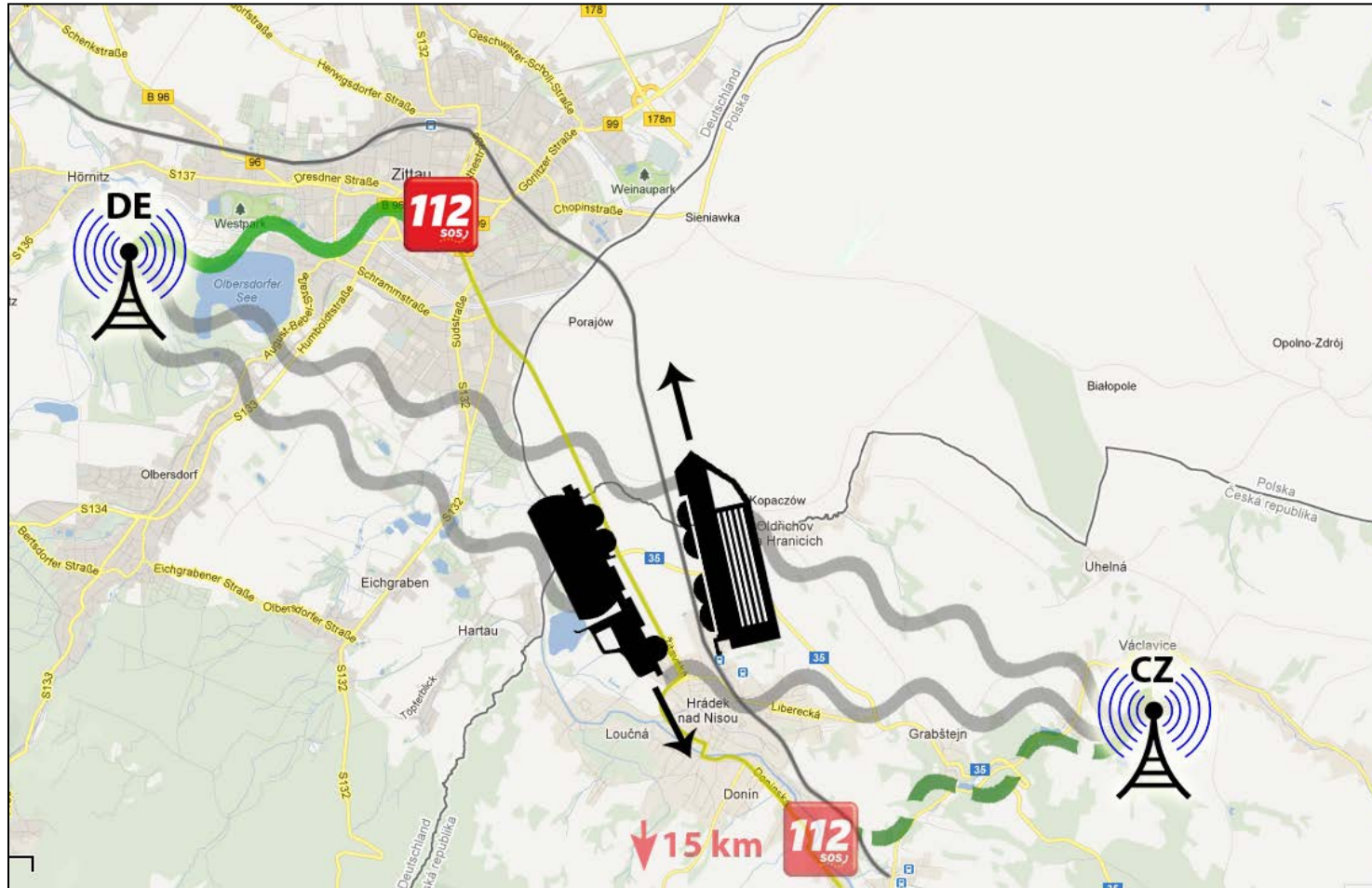
Warning message is displayed to the driver on his post and at the same time it is displayed at the current operational center of police or OCC on railway for executing preemptive measures.

# 2<sup>nd</sup> level - prevention

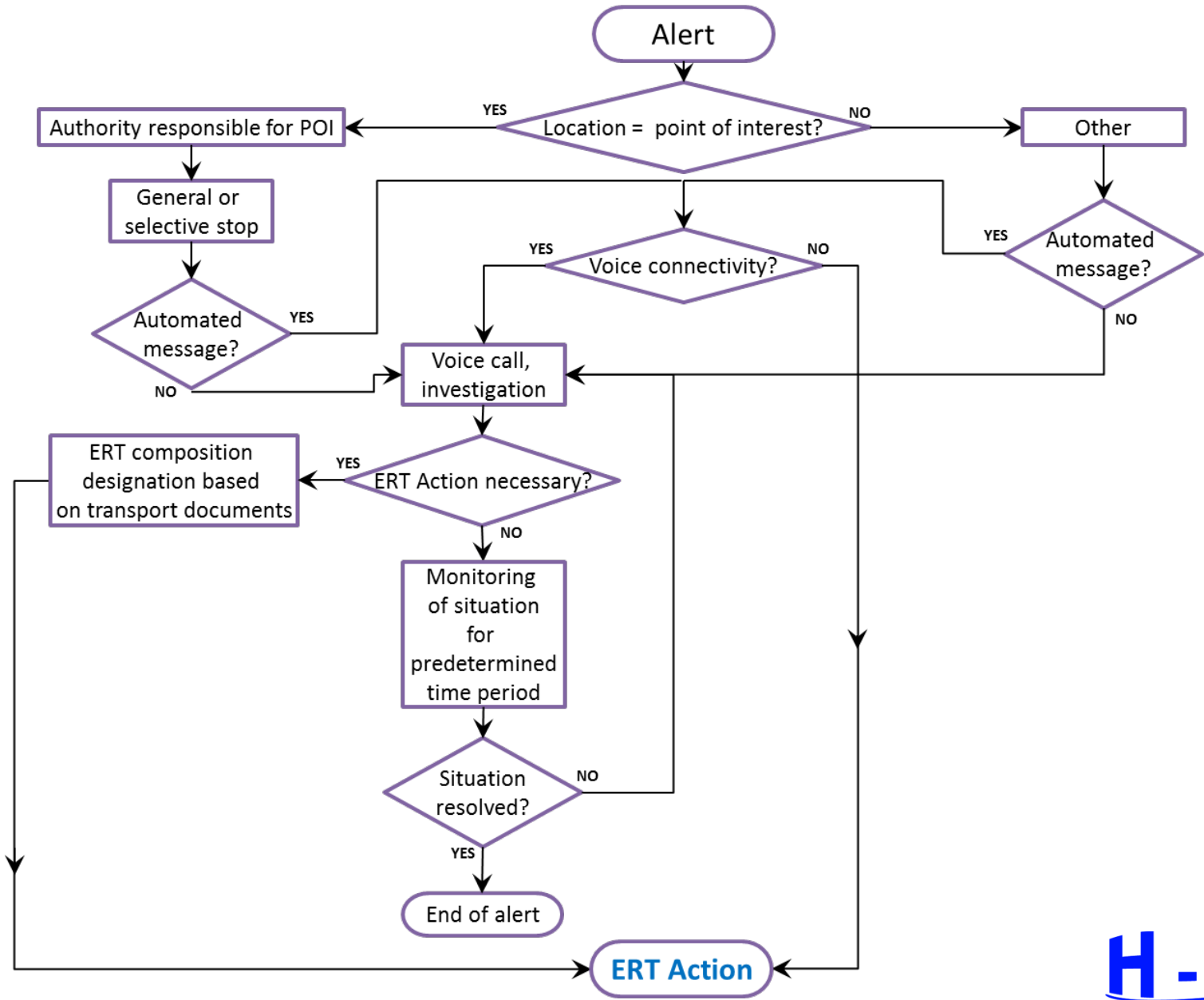




Use of DOGIES application for invoking general or selective STOP on railway in case of an immobile road vehicle on level crossing



Use of DOGIES application in border zone of two or more countries using the same model of IRS.  
Optimization of the action based on availability and speed of IRS.



## **Main users**

- State and regional authorities
- IRS – integrated rescue system
- Railway undertakings
- Carrier
- Infrastructure managers
- Storage/warehouse owner

## **Other potential users of the system**

- Professional organizations and communities
- Military and civilian agencies



## Electronic Transport Data Services for Monitoring of Dangerous Goods

- The project proposal was submitted in 04/2014
- Expected approval by EUREKA committee: 09/2014
- Expected start of works: 03/2015

### Developers:

OLTIS Slovakia

ISW Institut, GmbH.

Ing.Miroslav Haltuf – H-COMP Consulting



## The solution is proposed as:

- Managing, creating and tracking of transport and additional documentation of dangerous goods in the entire multi-modal transport environment
- Support of monitoring processes in the entire logistic chain,
- Creation and managing of IT support of other applications, developed or in development with the aim to providing safety prevention in transport or specifically for transport of dangerous goods,
- Support of computerization of transport documents and availability of DMS of different actors within the transport of dangerous goods,
- Support for safety authorities decision-making in case of incident or accident involving dangerous goods



“suite of integrated facilities providing a whole new experience throughout the Logistics chain”

easily accessible entitlements

transport planning



Career: Benefits from services

en-route assistance, real-time re-accommodation.

specific needs of ADR/RID

**Device/ Career's interface**

**Cargo Companion**

Manage IDs

Manage Preferences

Navigate at interchange to IRS (Integrated Rescue System)

Detect and store events

Connect to device APPs

**Cargo Planner**

Orchestrator

Meta Travel Solution Constructor

Multimodal Availability logic

Cargo Expert Manager

Offline Cargo Expert

Intermodal Cargo Experts

**Tracker**

Track Journey

Detect Events

Events dispatching to affected transportation

Trigger reaccommodation

**Data analyser**

Data orchestrator

Registrar

Document creator/finder

Manage Validation and Backoffice

**Interface with Operators/Other services**

Data Model Design

Information Management and Analysis

Data Collection and Integration

**Business Analytics**

Analytic Services Information

Presentation Design

Interface with Operators/ Other services

Semantic services Registry and Discovery Engine

Ontology Repository

**Interoperability Framework**

Semantic Query Engine and Aggregation

Location Resolver

**Operator/Service Provider interfaces**

“robust and responsive transport operations”,  
“robust business models capable of guaranteeing the economics of these e-services in the long-term”



Operator/ Service Provider: provided with Tools to improve their operations and offer better services

## Central System for Monitoring and Evaluating of Transport Movements

- The project proposal was submitted in 04/2014
- Expected approval by EUREKA committee: 09/2014
- Expected start of works: 03/2015

### Developers:

CID International  
INTENS Corporation  
Cracow University of Technology  
University of Zilina



## Central System for Monitoring and Evaluating of Transport Movements

### PROJECT GOALS:

- To conduct research on users' needs, existing systems, technical possibilities, data exchange and interfaces.
- To carry out research on current controlling systems on regional railway lines.
- To propose and develop an interface for data exchange between monitoring systems and the central application.
- To develop a central database application based on geographic information.
- To develop a central service for customers requiring different kind of information based on positions of the transport objects.

## Central System for Monitoring and Evaluating of Transport Movements

### *KEY FUNCTIONALITIES :*

- Entry/exit the general geo-zones, rail/road crossings, tunnels, county/NUTS, security/rescue regions etc.
- Calculation routes between 2 points.
- Calculation distances between 2 points on rail/roads.
- Calculation the estimated time of arrival (ETA) of the consignment
- Analysis of life data and parameters of the means of transport (e.g. the temperature, the rotational speed, the pressure).
- Monitoring of the operation status.
- Identification of the irregularities – speed exceeding, sharp breaking, critical areas etc.
- Sending messages to users in case of any defined situation or (un)expected incidents.
- Evaluation of data according to the requirements and exchange of position data with external users' applications available from any mobile devices connected with internet and GPS system.



Thank you for your kind attention !