

# DFRS Overview

**Joost Vantomme – GA Chair  
CEO - ERTICO**

# Introduction



- All European Transport Ministers, the European Commission and current industry partners established the Data for Road Safety during the High-Level Meeting on Connected and Automated Driving on 15 February 2017 in Amsterdam.
- The mission of the European Data for Road Safety is to improve road safety by maximizing the reach of safety-related traffic information powered by safety data generated by vehicles and infrastructure.
- The DFRS ecosystem supports the implementation of existing EU laws on access to safety data. By prioritising access to safety data and enabling collaboration between vehicle manufacturers and countries, the DFRS ecosystem aims to enhance traffic safety for all road users.



# Key Principles

The DFRS is based of the following Key principles:

## Free of charge...

Data is exchanged within the SRTI Ecosystem for the sole purpose of road safety, without any financial compensation between the parties and within the agreed data privacy policy.

## ...on the basis of reciprocity...

The reciprocity principle simply means that if you get something - you give something. Each role brings a value to the Ecosystem.

## ...for road safety

Data received through the SRTI Ecosystem can only be used to create Safety Related Traffic Information. It is strictly prohibited to use the data in the SRTI Ecosystem for any other purpose, as the members consider other usage to be commercial use cases.

These principles and other agreements are part of the Multi Party Agreement signed by the partners, and are valid within the SRTI Ecosystem. Joining the SRTI Ecosystem by signing the Multi Party Agreement alters however in no way any rights and obligations parties have, including the European Delegated Regulation on the exchange of Safety Related Traffic Information.



# Focus on SRTI

- European Commission delegated Regulation of 15 May 2013 on sharing of safety related traffic information
- Principle: information on 8 events free of charge to end-users (drivers)
  - **Unprotected accident area**
  - **Animal, people, obstacles, debris on the road**
  - **Temporary slippery road**
  - **Reduced visibility**
  - **Exceptional weather conditions**
  - **Short-term road works**
  - **Wrong-way driver**
  - **Unmanaged blockage of a road**
- Cooperative approach : no free riders in the system



# About DFRS



Facilitate the use of in-vehicle data for the creation of Safety Related Traffic Information as defined in the [Delegated Regulation \(EU\) 886/2013](#) (ITS Directive)

Multi-Party Agreement: legal and organisational framework of cooperation

Definition and common understanding of data levels (L2, L2', L3)

Decentralized ecosystem with defined roles and responsibilities as defined within [the Technical Documentation](#)

Proven potential to improve road safety

Focus on road safety events and conditions categorised in the [Delegated Regulation \(EU\) 886/2013](#)

Open to new members: [www.dataforroadsafety.eu](http://www.dataforroadsafety.eu)

# Our Value!





# DFRS Partners



DFRS is made up of 22 partners



# DFRS SETUP



Joost Vantomme  
GA Chair



Joost Vantomme



Manfred Harrer

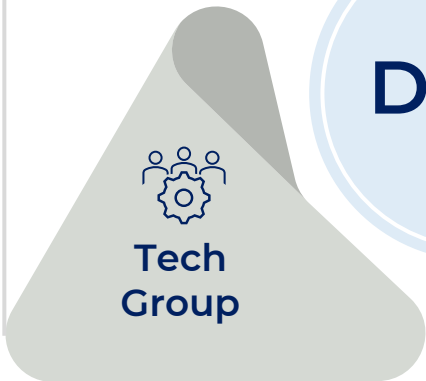


Jorge Ordas



Peter Geffers

Mohanad Ismail  
Tech Group Chair



Julia Rodriguez Ravego



Mohanad Ismail



Ministry of Infrastructure and Water Management

Erik Vrijens

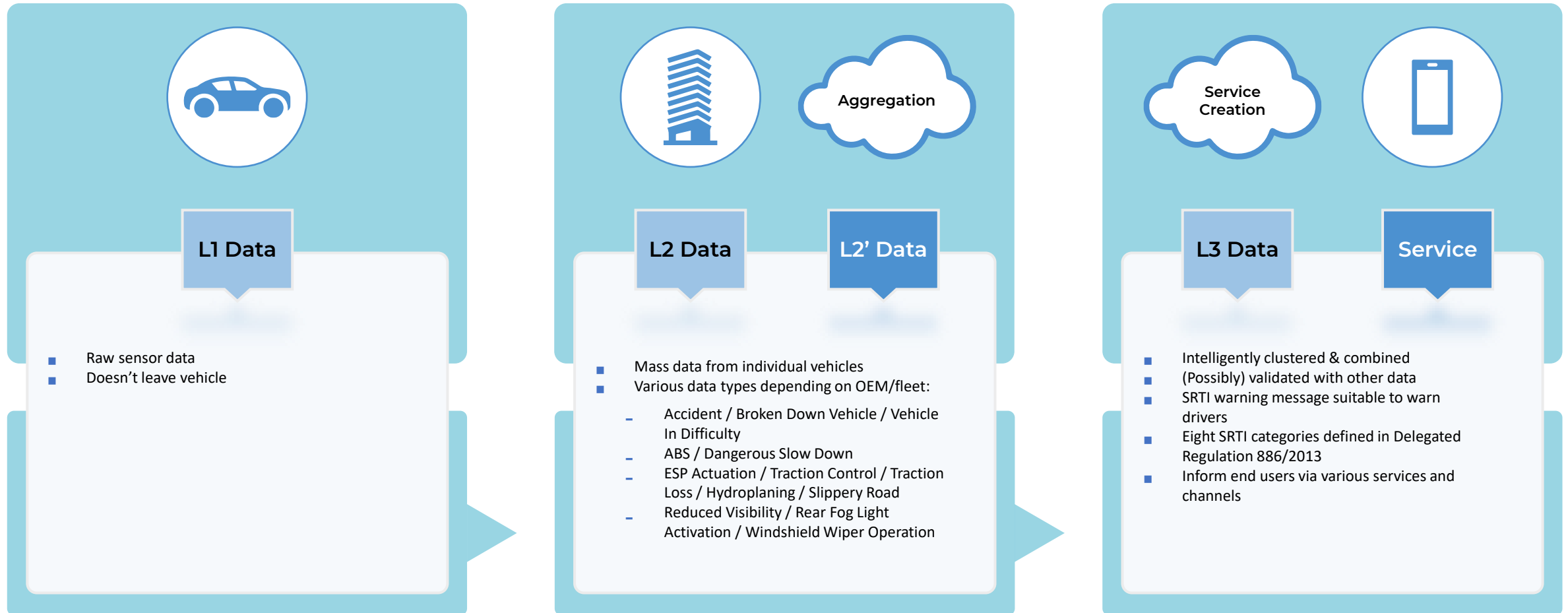




# DFRS Tech Group

Mohanad Ismail – Tech Group Chair  
Associate - WSP

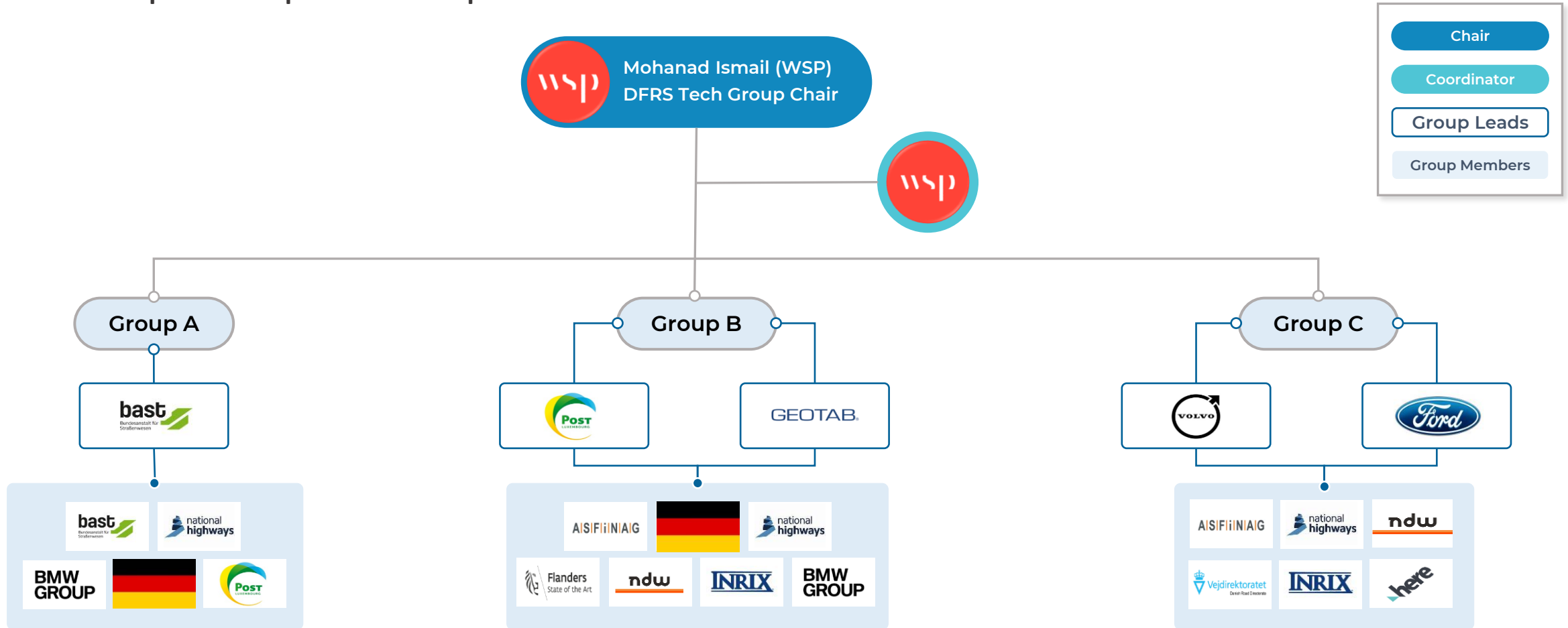
# Types of Data



# Tech Group Structure



The Tech Group is made up of three Groups



# Tech Group Scopes



The Group Scopes are as follows:

## Group A

### Data spaces

- Information Gathering (review documents on how various data spaces work)
- 
- Vision and options of DFRS SRTI operating in Dataspaces

## Group B

### Agile way of working (Github)

- Private GitHub with access to all DFRS members
  - Sharing of Code snippets
  - Potential expansion to wider communities outside DFRS
  - Setup a toolkit where members can contribute code that leverage the data use in DFRS
- 

### Prove value of DFRS ecosystem

- Development of a data playground
  - Creating publicly accessible dashboards
  - Are there any reports that can be shared between parties to show value and promote
- 

### Data Aggregation and Retention

- Define the rules for data aggregation and define the threshold to trigger L3 data (include Group C on discussion)
- Define rules for data retention, how long do we keep accident data etc.? Consider DFRS User Needs.
- To understand the problem space of the DFRS user and then define the need based on the problem

## Group C

### L3 Data Usage

- Provide visibility on the end users of L3 data and what services can benefit from the eco-system.
- 

### Validation of OEM data

- Triggering Conditions-Establish a 'Triggering Conditions' document to use as a basis for determining the confidence level and triggering criteria for different types of events
- 

### Validation of Infrastructure data

- Validation Support Framework (NRAs)-Establish a Validation Support Framework to access the validation process required for data exchange between NRAs and OEMs. National Highways and Austria are to work with Ford and Volvo to define the Validation Support Framework.

# DFRS Tech Group Achievements to date



- 22+ active partners contributing to the ecosystem growth through data provision and expertise.
- 2 of 8 Self Declarations Published in line with the 8 safety categories of the delegated regulation 886/2013:
  - Self-Declaration for Short Term Road Works Warning
  - Self-Declaration for Unprotected Accident Area Warning Data
- Internal governance & agreed ways of working between partners.
- Publication of a paper at the ITS World Congress in 2021
- Inauguration of the “DFRS Live Map”



DFRS Interactive Map

# 2023 & Beyond...



- Continued development of the remaining Self Declarations.
- Enhance our live data feed with additional OEM & non-OEM data

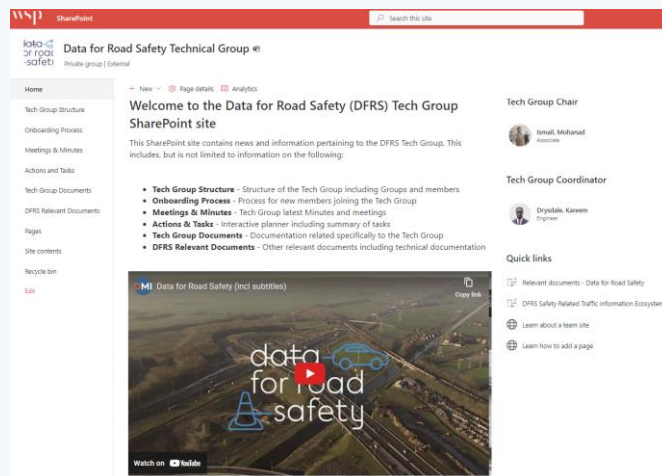


# Tech Group Community Platforms



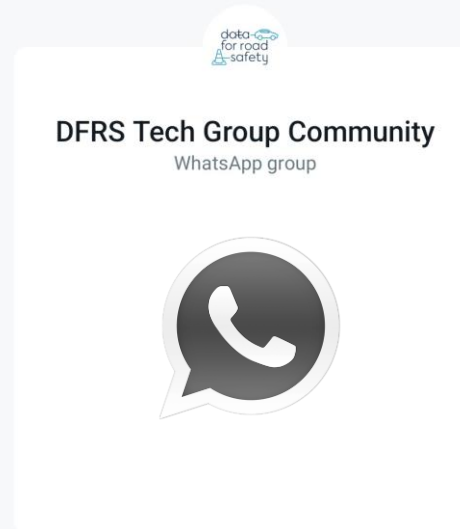
## SharePoint

SharePoint Site containing news and information pertaining to the DFRS Tech Group.



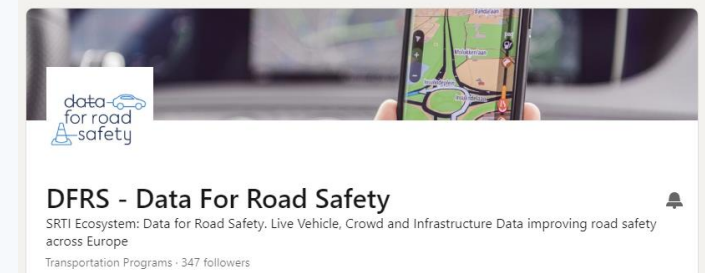
## WhatsApp

WhatsApp Group offer a space for the DFRS Tech Group to discuss any informal topics around the subject of DFRS



## LinkedIn

Bringing together vehicle manufacturers, traffic information service providers, automotive suppliers and public authorities to significantly improve road safety across Europe.



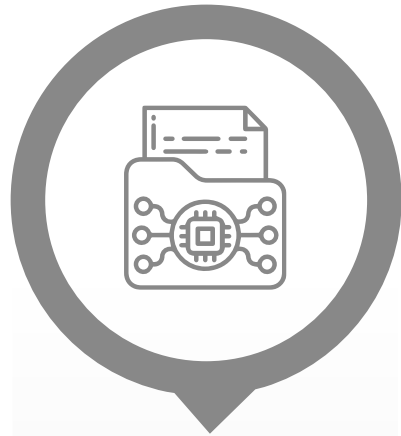
<https://www.linkedin.com/company/dfrs-data-for-road-safety/>

**Note:** Access to the DFRS SharePoint and WhatsApp Community platform is reserved for official members of the DFRS consortium.

# Key Documents & Links



[Multi Party Agreement for the SRTI Ecosystem](#)



[Technical Documentation](#)



[Evaluation of the PoC Data for Road Safety](#)



[Instructive Video](#)



[Dedicated DFRS Website](#)



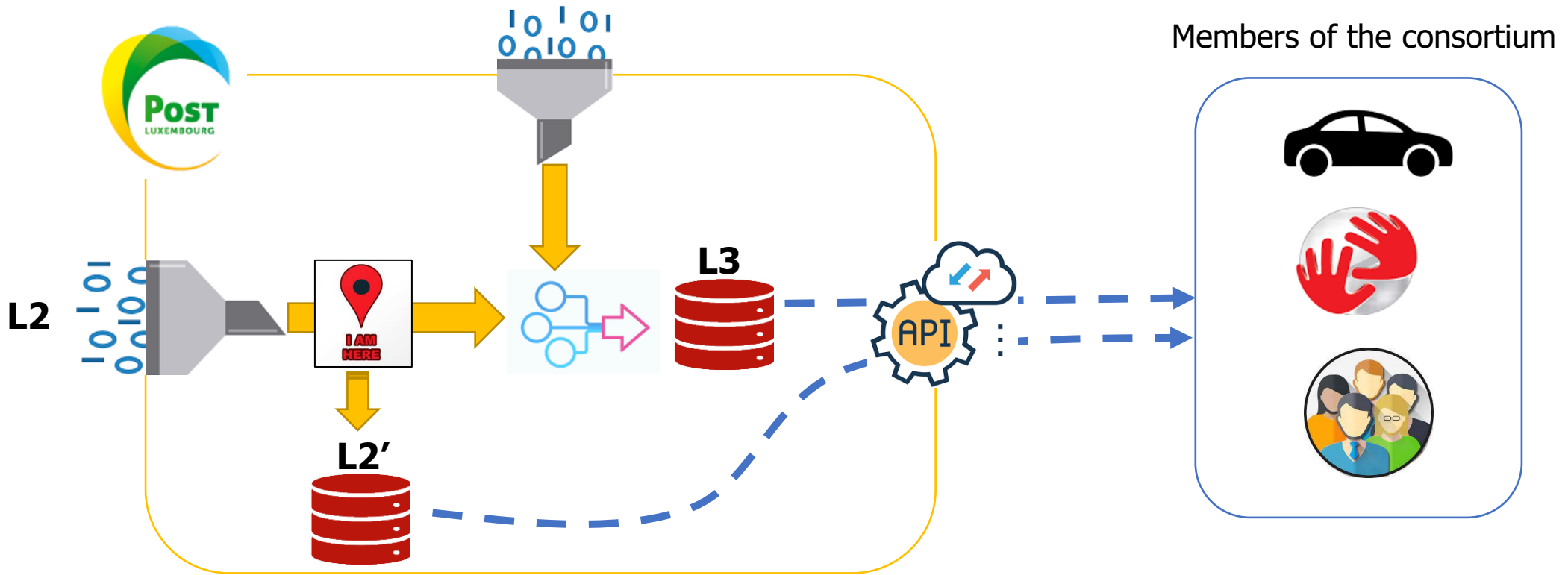
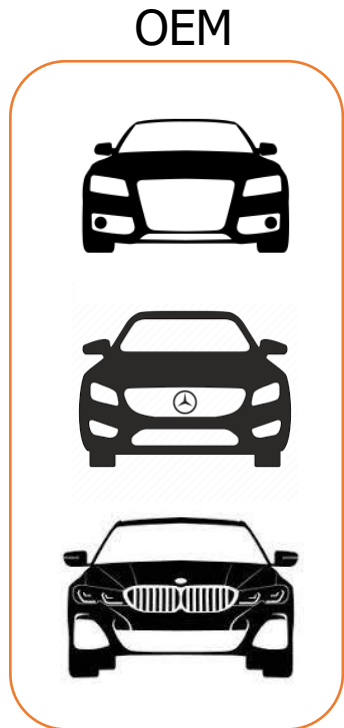
# DFRS Member

**Nicolas Vivarelli – Group B Co-Chair  
Head of Data Intelligence – Post Luxembourg**

# Data flow overview



Traffic authorities



# OEM Input

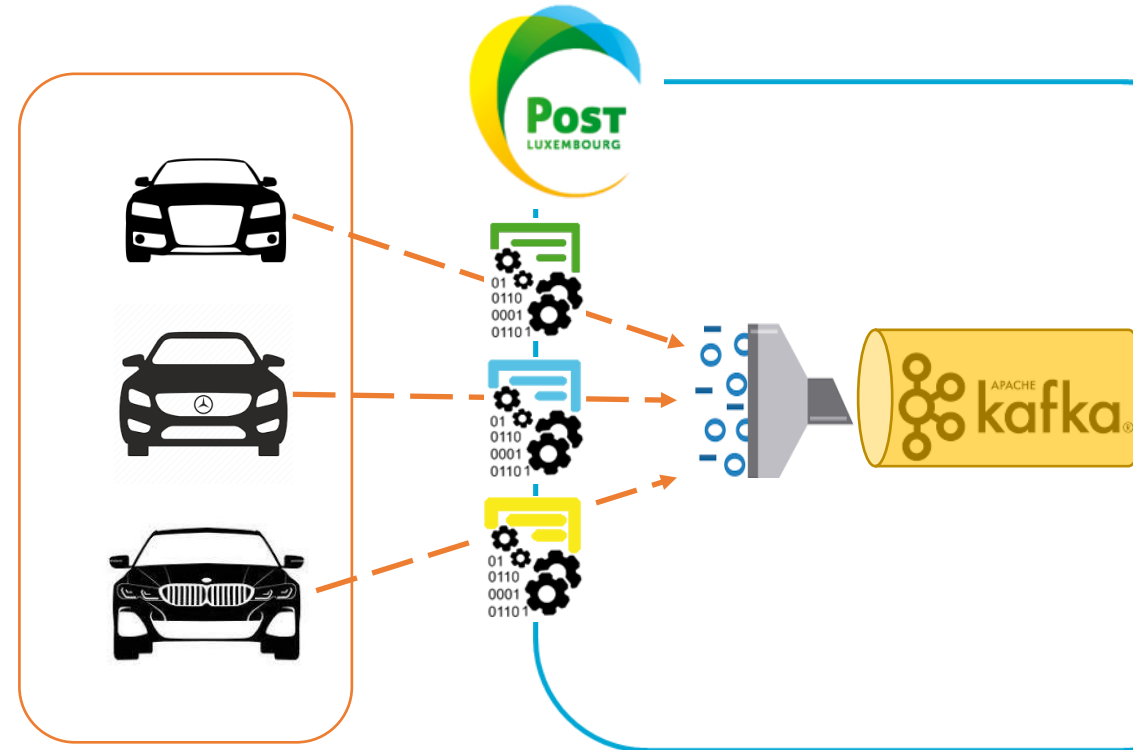


## Challenges:

- Data sent is sparsed (minimum for viability). No obligation.
- Data lacks uniformisation – each OEM has its own format.
- Access point are also not standardized.
- Volume makes it difficult to keep near-real time processing.

## Solution:

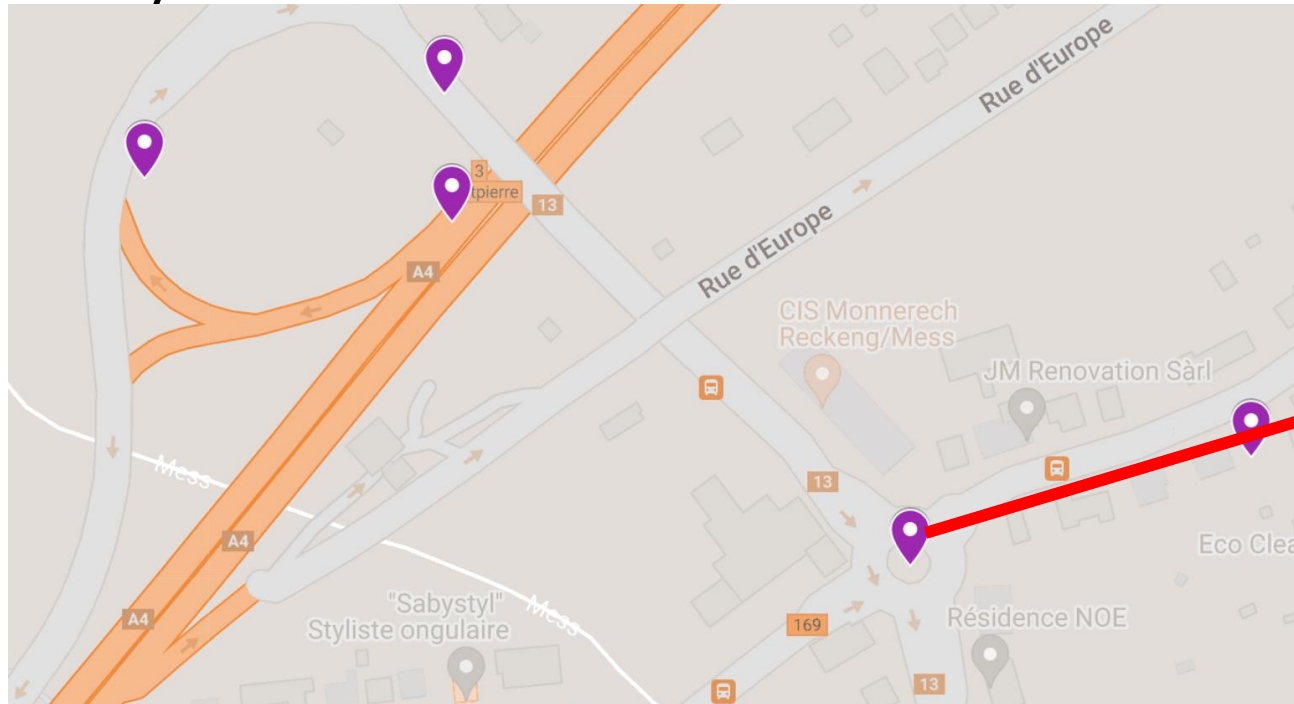
- Create a schema with common data.
- Map input format to schema through customized parsers.
- Leverage parallel processing to keep up with pace of the flow.



# Map matching thanks to Open Data



- #1/ Put back all the



- 2/ Get information about the road for the event

hgv	yes
highway	secondary
lanes	1
lit	yes
maxspeed	50
name	Rue de Luxembourg
oneway	yes
ref	CR 169
surface	asphalt



# Output



## Share the insights (information):

- L3 Data available through simple APIs.
- Open format (DATEX2 + OpenLR) for better integration into customer products/databases.
- Limited to the consortium only.

## Objective:

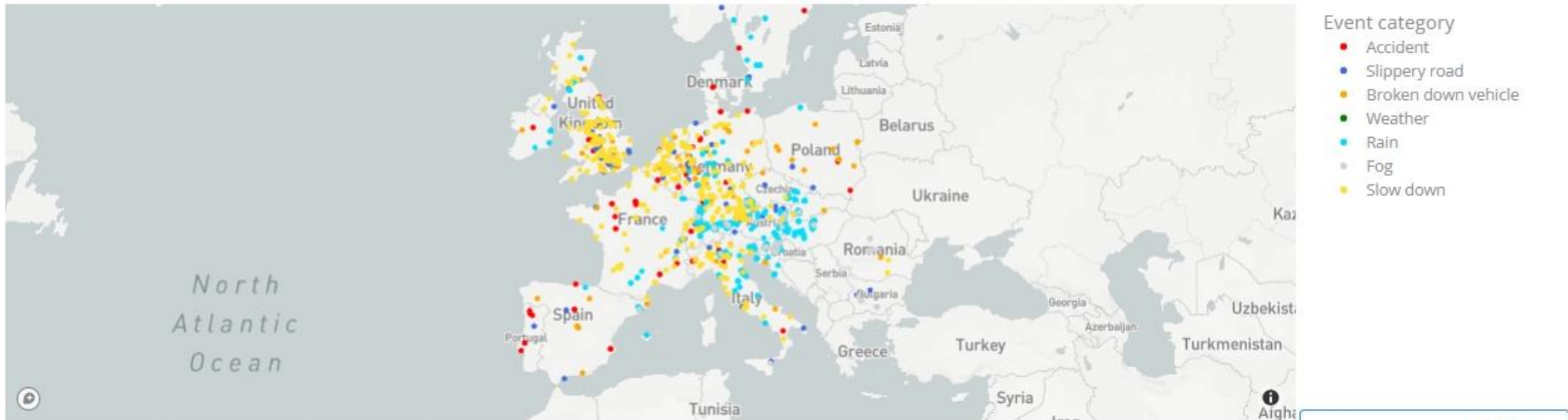
Warn drivers of events ahead in a near-real time manner and save lives on the roads.

```
"results": {
  "8f081080aad84d8-W": {
    "Events:WeatherEvent": [
      {
        "type": "EXCEPTIONAL_CONDITION_LOW_VISIBILITY",
        "status": "N/A"
      },
      1685091052393
    ],
    "Events:category": [
      "Weather",
      1685091052393
    ],
    "Events:openlr": [
      "CyywVwgFRAAXAf/9AKUAFwH//gCiABc=",
      1685091052393
    ]
  },
  "8f08108e4523ab6-SSW": {
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      {
        "type": "EXCEPTIONAL_CONDITION_LOW_VISIBILITY",
        "status": "N/A"
      },
      1685091184611
    ],
    "Events:category": [
      "Weather",
      1685091184611
    ],
    "Events:openlr": [
      "Cyyu9AgLlQASAf+5AGMAEgH/ugBjABI=",
      1685091184611
    ]
  }
}
```

# DFRS Live Map



The DFRS live map is a tool that provides a holistic view of safety-related events occurring in the past 48 hours. The dashboard features an interactive map displaying several incidents.



*The DFRS live map is not contractually binding real-time data (delayed by 48 hours for presentation purposes).  
Join DFRS for live data streams*



Live Map is available from the DFRS website: <https://data-intelligence.post.lu/dfrs/>



WSP has been acting as Tech Group Chair and coordinator for DFRS at the time of authoring this publication, as such WSP has provided the template for this publication.

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