



Data for Road Safety Ecosystem From NAPCORE's perspective

NAPCORE Mobility Data Days

3 November 2022

Timo Hoffmann

Topics

- Leading question:
Can DFRS act as best practice for SRTI data provision to NAPs?
- What is the DFRS ecosystem?
- DFRS from an automotive OEM's perspective
- What are Safety Related Traffic Information?
- DFRS from the point of view of NAPs and National Bodies

DFRS as best practice?

- Leading question for this session:
Can DFRS act as best practice for SRTI data provision to NAPs?
- Reminder: NAPCORE is about harmonization
- NAPs and National Bodies are in need for harmonization, coordination, „standardization“, interoperability improvements
- In this session we want to discuss with you:
does DFRS fulfill the requirements we as NAPCORE (should) have in terms of defining and implementing recommendations for use at all European NAPs and National Bodies

Open questions:

What exactly would be the recommendation?

Will all NAPs/MS approve this recommendation?

What are NAPCORE's requirements in this regard?

does DFRS fulfill the requirements we as NAPCORE (should) have in terms of defining and implementing recommendations for use at all European NAPs and National Bodies

Are there „gaps“ and what are they?

What would need to be implemented?

What is the DFRS ecosystem?

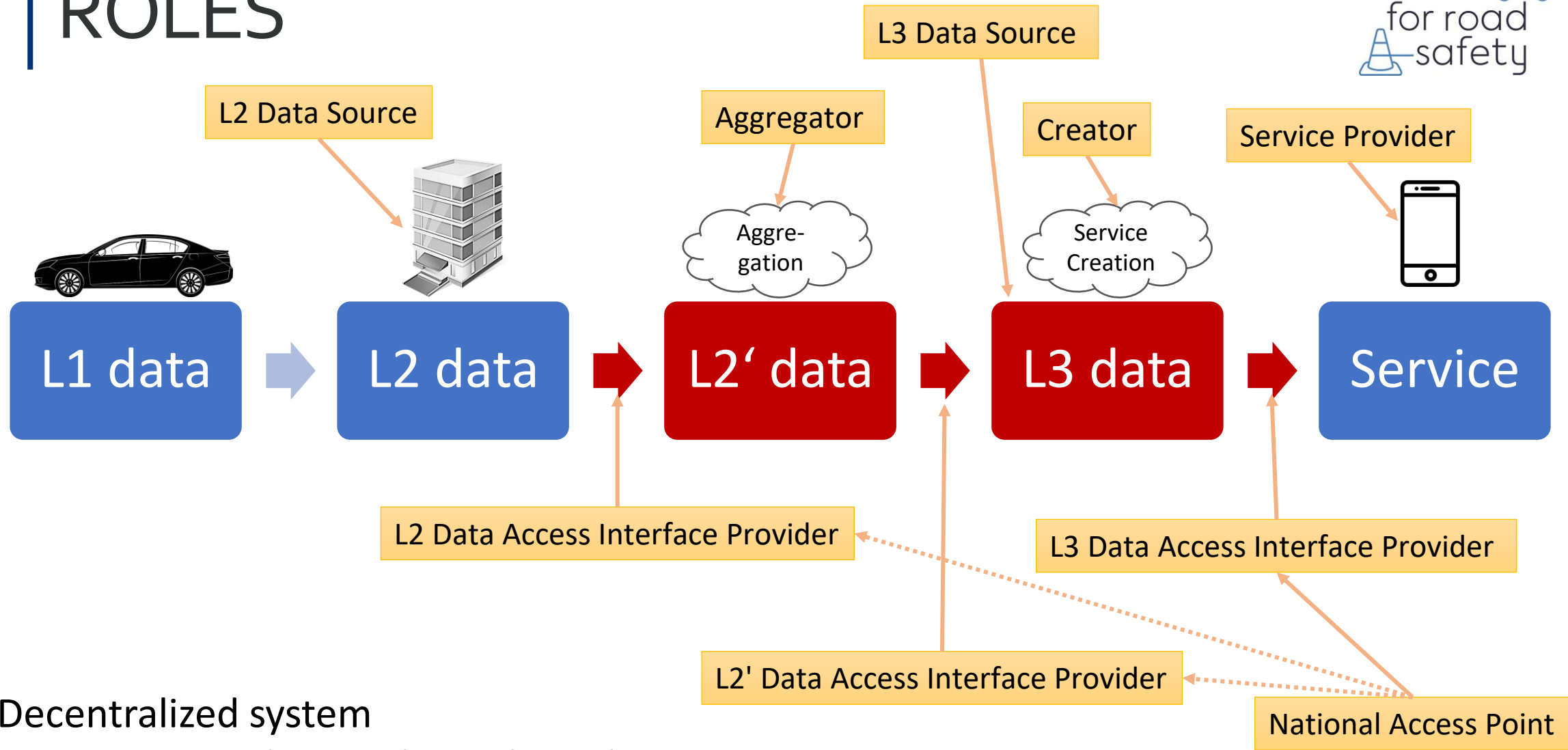
- We have heard the previous presentations
- Some more details in the following slides (some recap)

DFRS: PUBLIC PRIVATE MOBILITY DATA SPACE



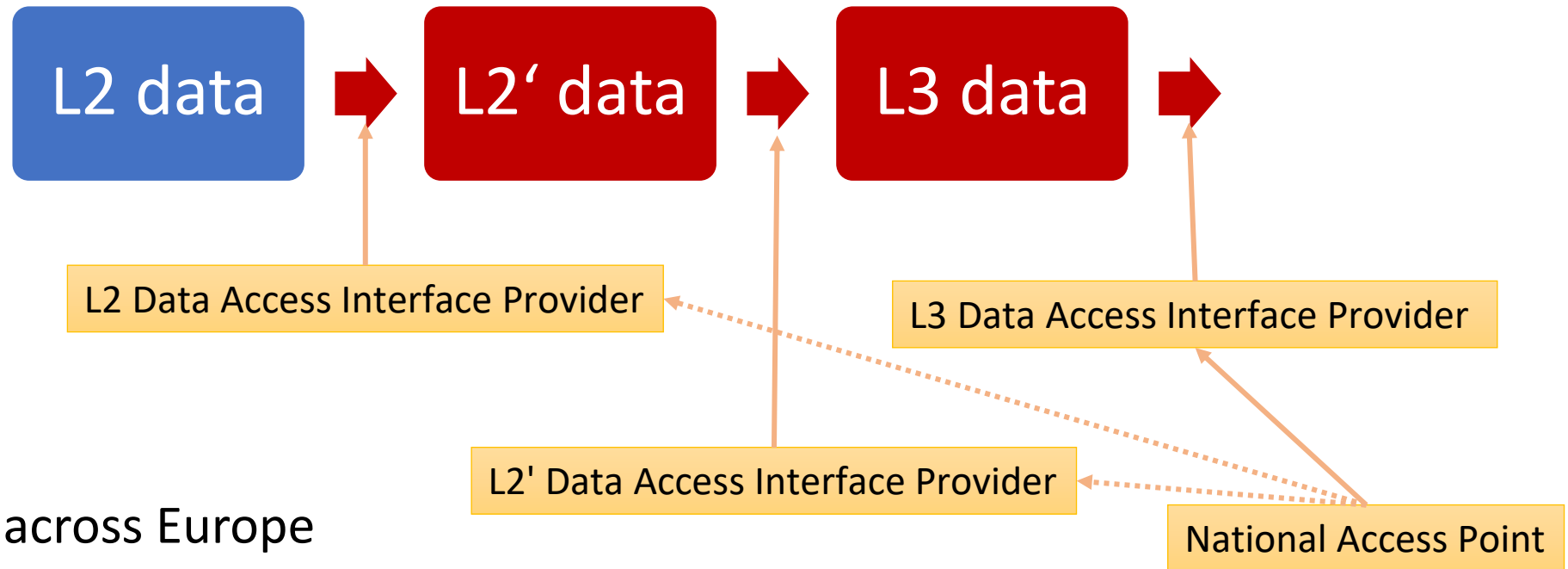
- **Facilitate the use of in-vehicle data for the creation of Safety Related Traffic Information as defined in the Delegated Regulation 886/2013 (ITS Directive)**
- **Multi-Party Agreement forms legal and organisational framework**
- **Definition and common understanding of data levels (L2, L2', L3)**
- **Decentralized ecosystem with defined roles and responsibilities**
- **Proven potential to improve road safety**
- **Open to new members**

ROLES



- Decentralized system
- Every partner chooses her role in the ecosystem
- Different obligations depending on role

ROLE OF THE NAP



- NAPs are different across Europe
- L3 data needs to be made available at the NAPs (DR 886/2013)
- For L2 & L2' data the “Mobility Data Space” would likely be better suited
- Data usage tracking and rights, licensing etc. not (well) supported by NAPs

DFRS from an automotive OEM's perspective

- Slide from BMW from ITS Europe Congress in Toulouse (June 2022)
- © BMW (Reinhard Jurk)

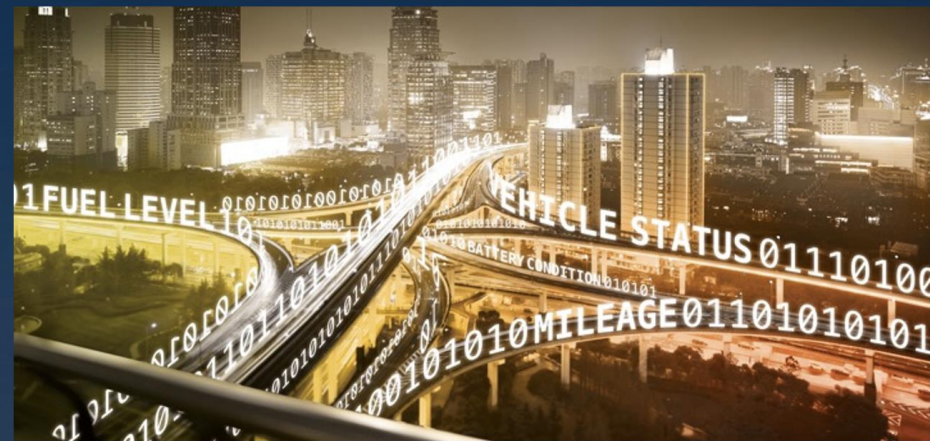
Why is BMW participating in DFRS?

We as BMW Group...

- See Traffic Safety as part of the social responsibility of BMW
- Drive Digitalisation forward
- Want to create an open ecosystem for sharing data to improve safety on Europe's roads
- Started sharing safety relevant traffic data under CC license as early as July 2019
- Have one of the largest connected fleets on the road today

Benefits of DFRS:

- Technology well suited for the job and not requiring expensive new investments
- Leveraging existing assets of all parties
- Highly scalable approach cross OEMs, Public Partners, Service Providers
- Gaining real insights in the nuts and bolts of the data economy
- Paving the way for Europe's overall digitalisation strategy



DFRS from an automotive OEM's perspective

- Looking for ONE way to share safety related vehicle generated data to NAPs (instead of multiple projects with differences in requirements and processes by country)
- NAPCORE can help harmonize this
- Two main wishes:
 - Data provision to NAPs via common interface instead of different European NAPs
 - Data retrieval for infrastructure SRTI for Europe using one interface instead of 27+...

Cooperation of DATEX II & DFRS

- Rationale

- The DFRS ecosystem is not a standardisation or technical harmonisation body – nevertheless best practice is promoted
- There are different levels of data in DFRS
 - Vehicle (raw) data (“L2/L2”): the SENSORIS standard is widely used
 - SRTI Messages: DATEX II is preferred (→ DelReg 886/2013)
- The DFRS Technical Group and the DATEX II Technical Board cooperate on a suitable DATEX II profile for SRTI created from vehicle data – this is expected to be expanded on demand in the future, if more and different L2 data types are ingested

DATEX II DFRS profile package

- Concept of the profile (based on CEN/EN 16157-3)
 - Make it slender – only attributes that can be filled from the L2/L2' to L3 aggregation process described in the DFRS Technical Doc.
 - Location Referencing (based on CEN/EN 16157-2):
 - Point and Linear locations (on the road)
 - Coordinate based locations based on GML mandatory
 - OpenLR as an option (→ extension for OpebLR Binary!)
 - ALERT-C as an option
- Delivered as a package with documentation
- Profile hosted on datex2.eu for reference
- Whenever required, the profile can be extended in the future, e.g. to include data elements for infrastructure L2/L2'

FROM A NATIONAL BODY PERSPECTIVE



- **Before DFRS there were open questions regarding vehicle-generated data:**
 - Are OEMs required to deliver data according to 886/2013 (EU)?
 - What kind of data exactly and what format should be used?
 - What are or can be the terms of (re)use of the data shared?
- **With DFRS and the MPA most of those questions have been addressed:**
 - Data provision of vehicle-generated data from OEMs on the basis of the DFRS membership
 - Tech group of the DFRS is meeting regularly and is discussing technical details
 - MPA creates legal framework and lays out the terms of use of the data provided
 - More than 5 years of (sometimes hard) discussions, negotiations and concessions on both sides
- **For National Bodies that means / could mean:**
 - The criteria for data provision of OEM vehicle generated data are defined via DFRS partnership
 - Data is made available instead of non-provision due to uncertainties => Best Practice
- **Still open questions:**
 - Do OEMs still need to hand in self-declarations? Where? How? Can this be made easier?
 - What about OEMs or Member States that are not DFRS partner?
 - Should we as NAPCORE define the DFRS way as recommendation/guideline for all NAPs/MS/OEMs?