

Data for Road Safety (DFRS)

Impact on Road Safety

September 2026



Foreword

2026 has been a year of elevation for DFRS, building on the direction we set out on last year and translating it into tangible, measurable impact at scale. Our collaboration with Mobility Data Space (MDS) has moved from principle to practice, giving DFRS a credible foundation for secure and decentralised data exchange. Our collaboration with Euro NCAP has matured alongside it, with the 2026 protocol now in force, real-time hazard data sharing is a factor that genuinely influences vehicle safety ratings, giving vehicle manufacturers a commercial reason, not just a regulatory one, to keep sharing.

This report reflects that progress chapter by chapter. It sets out real-world scenarios such as slippery roads, reduced visibility, floods, wandering wildlife where a single vehicle's warning can reach drivers of other cars within seconds regardless of the brand. It details the achievements of the past year, from the depth of our Euro NCAP collaboration to the growing diversity of our membership across OEMs, service providers, and road authorities. It walks through how data is exchanged across the ecosystem, touching on the ~480 million messages that have been exchanged since our last Impact Report release.

Finally, it lets our members speak for themselves from the Norwegian Public Roads Administration's (NPRA) shift toward event-driven traffic management in Norway, to Spain's Dirección General de Tráfico (DGT) evaluating nationwide event reliability, to BMW putting this data to work for drivers. A full list of this year's contributing members can be found in chapter 5.

This is what effective collaboration can achieve: organisations aligning around a shared purpose in an environment where competitive interests are secondary to the overriding priority of protecting lives on the road.

None of this happens without the people behind it. The DFRS community has shown proactive effort and sustained engagement throughout the year, and it is that commitment turning up, contributing data, testing, evaluating, refining that keeps this ecosystem moving and keeps impact happening across Europe.

DFRS is live, delivering measurable results for the organisations and road users who leverage it every day. I am proud of what our members have built together this year, and confident in the scale of impact still ahead of us.



- Mohanad Ismail,
Chair, DFRS Tech Group

Context Outline

1. Introduction	4
2. Safety Related Traffic Information (SRTI) Scenarios	8
3. Achievements & Progress	12
4. DFRS Ecosystem Data Flow	14
5. DFRS Data Impact Across Europe	20
6. Looking Ahead & DFRS Impact Journey	36
7. DFRS Members Testimonials	38

“ This year’s Impact Report once again demonstrates the unique value of the Data for Road Safety ecosystem. DFRS is an invaluable contribution to Europe’s emerging data economy, bringing together public and private organisations to share, combine and make meaningful use of data for safer mobility with societal impact.

What makes this ecosystem particularly powerful is the way data from different instruments, sources and entities can be fused to create new insights and enable safer roads and safer vehicle journeys.

As Chair of the General Assembly, I have been particularly pleased to welcome many new public and private members to our community. Their engagement further strengthens the diversity, expertise and reach of DFRS. We also greatly value our cooperation with Euro NCAP, which reinforces the link between data, vehicle safety and the ambition of Vision Zero. ”



- **Joost Vantomme**,
Chair, DFRS General Assembly



1. Introduction



Introduction

The Data for Road Safety (DFRS) ecosystem continued to mature in 2026, strengthening its role as a trusted European framework for the exchange and use of safety-related traffic information. Bringing together vehicle manufacturers, road authorities, service providers, and technology partners, DFRS is increasingly translating collaboration into operational deployment and measurable impact.

A key milestone this year has been the continued integration of DFRS with Mobility Data Space (MDS), establishing the foundation for secure, interoperable, and scalable data exchange across Europe. At the same time, the implementation of the Euro NCAP 2026 protocol has further increased the relevance of connected safety data, positioning DFRS as an important enabler of next generation.

This report highlights:

How DFRS members are creating value through improved incident detection

Enhanced traffic management

Connected vehicle services

Stronger public-private collaboration.

Together, these achievements demonstrate how shared data can contribute to safer roads, more efficient operations, and a more connected mobility ecosystem across Europe.



2. Safety Related Traffic Information (SRTI) Scenarios



Safety Related Traffic Information (SRTI) Scenarios

Below are some road journey scenarios where real-time sharing of slippery road conditions, accidents, road damage, flooding, emergency vehicles, and other hazards lead to life-saving outcomes:

Black Ice/Slippery Road Alert:

On a frosty morning in Sweden, a car hits an unseen patch of black ice. Its sensors detect sudden loss of traction and instantly warn nearby vehicles (of any brand) about the slippery spot. Approaching drivers receive a dashboard alert in time to slow down and avoid skidding, preventing a chain-reaction collision on the icy highway. By sharing real-time road surface data, the first car increases everyone's awareness of the hazard ahead and helps avoid an accident.

Fog/Low Visibility Warning:

Late night on a German Autobahn, dense fog can be detected when multiple vehicles activate their rear fog lights (identifying low visibility conditions through onboard sensors). Other vehicles are notified of the hazard warning before a potential hazard can occur. In the event the dense fog causes a multi-car crash and the airbags deploy in one vehicle; a hazard alert is broadcast to all following vehicles through the shared safety network. Drivers' minutes behind the accident receive immediate warnings on their displays to slow down well before they see any wreckage. Many begin braking early and switching lanes safely. This prevents secondary crashes and allows traffic to reroute around the accident scene. Even cross-border travellers approaching from the Dutch side of the highway get the alert, since the system works across European countries. Such early warnings in low-visibility conditions give drivers critical time to react, dramatically reducing pile-up risks.

Pothole Alert on Rural Roads:

A family driving in rural Ireland encounters a deep pothole that jolts their car. The vehicle's suspension sensors recognise the hard bump and automatically tag the pothole's GPS location. This information is sent to a cloud network and shared with cars coming down the same road. A few minutes later, another driver (in a different make of car) receives a notification and audible warning about the pothole 10 seconds ahead. They slow down and gently avoid it. By alerting drivers to rough road conditions in real time, vehicles help others dodge the hazard preventing blown tires, suspension damage, or loss of control that could lead to an accident.

Flash Flood Alert:

During a sudden cloudburst in northern Italy, a low-lying underpass on a regional highway flood rapidly. A car approaching the area detects water up to its bumpers and stops; it then flags the flooded segment in the shared network. Within moments, multiple navigation systems (regardless of car brand) push out an alert about flooded roads ahead and suggest alternate routes. Drivers in various vehicles receive this warning and instantly know to take another route, avoiding the underpass entirely. This real-time data sharing prevents motorists from driving into deep water a life-saving avoidance of a potentially deadly trap. Emergency services are also notified of the flood location, allowing road crews to respond faster.

Emergency Vehicle Approach Notification:

In busy London traffic, an ambulance is racing toward an incident. Equipped with a connected alert system, the ambulance broadcasts its location and route to nearby cars through a shared safety cloud. Drivers of different makes and models see a message on their dash (or hear a warning) that an emergency vehicle is approaching from behind. Well before the siren is audible, cars automatically pull aside or slow down to clear a path. This coordinated response not only reduces response times for the ambulance but also minimises panic braking and confusion on the road. In one case, an ambulance alert helped clear a busy intersection in Paris smoothly, shaving off minutes on reaching the hospital a critical difference in an emergency.

Road Debris Warning:

A sudden gust of wind on a Dutch highway blows debris (a fallen tree branch) onto the fast lane. The first driver to encounter it slams the brakes and turns on hazard lights triggering an automatic “debris on road” alert to all cars in the vicinity. Vehicles trailing behind (whether a Renault, BMW or Ford) get an immediate warning about an object on the road ahead. Drivers promptly slow down and change lanes safely, avoiding hazards. Thanks to this heads-up, what could have caused a dangerous high-speed collision is instead handled with caution. The shared alert improves driver awareness and hazard avoidance in real time, turning a potential accident into a non-event.

Animal Crossing Alert:

On a dark rural highway in Finland, a Volvo encounters a large moose wandering onto the road. The driver manages to brake in time, and the car’s connected system signals a warning to nearby vehicles about animals on the road. A following car of a different make receives an alert on the dash: “Animal on road ahead.” The driver immediately reduces speed and scans the roadside with high-beams just in time to spot the moose and let it pass safely. By sharing this information across brands, drivers are forewarned about wildlife crossings common in Europe’s wooded areas, preventing a deadly collision with the animal (and serious harm to vehicle occupants). In places like Scandinavia and the Alps where deer, elk, or cows often stray onto roads, such advance warnings save lives by averting high-speed crashes.

Pedestrian on Roadside Warning:

Late at night on a French autoroute, a car has a flat tire, and two people are standing on the narrow shoulder awaiting assistance. A passing connected vehicle detects the stopped car (via its hazard lights or emergency call) and alerts the network about potential pedestrians on the road, or a connected vehicle detects the pedestrian (based on vehicle perception system) and alerts the network about pedestrians on the road. Shortly after, approaching cars receive a caution that people are on or near the roadway ahead. Drivers, now aware of this unusual hazard, turn on caution lights and give the stranded people a wide berth at reduced speed. This heightened driver awareness prevents a tragedy no one swerves or strikes the vulnerable people on the roadside. The shared data also notifies highway authorities and may dispatch an assist vehicle faster. By informing drivers of unexpected pedestrians on high-speed roads, the system dramatically improves safety for both motorists and those on foot.

Seamless Cross-Border Hazard Sharing:

A family driving from Germany to Italy passes through several countries in one day. Thanks to a Europe-wide safety data system, their car continuously exchanges hazard alerts with other vehicles and traffic centres across national borders. For example, on an Austrian autobahn, they receive a warning (originating from a Slovenian truck ahead) about a sudden hailstorm and slick roads just over the Italian border. Forewarned, they slow down before the weather worsens. Later, as they enter France, their car shares a recent accident alert it picked up in Spain with the local network, benefiting drivers who haven’t even seen the hazard yet. This cross-border flow of information means drivers are protected by a safety net that isn’t confined to one country. No matter where they travel in Europe’s highway network from rural back roads to busy urban corridors crucial safety data travels with them, helping to prevent accidents and save lives through unified, real-time awareness.

Each of these scenarios shows how live safety data sharing between different car manufacturers can prevent accidents, improve driver awareness, enable real-time rerouting or hazard avoidance, and even assist emergency services. Europe’s mix of variable weather, diverse terrain (rural villages to urban centres), vast highway networks, and cross-border travel stands to gain enormously from such cooperation. When vehicles communicate with each other about dangers ahead, every driver benefits from collective foresight making the road safer for everyone in the moment and ultimately saving lives on European roads.





3. Achievements and Progress



Achievements and Progress

Growth in Data Contributions and Activity

The overall level of data-related activity within DFRS increased throughout 2026. Participants contributed a growing volume of safety-related events and information, reflecting both the onboarding of new members and the deeper engagement of existing ones.

This growth improved the robustness of evaluations and supported more meaningful discussions on data quality, timeliness, standardisation, and relevance for safety applications. It also highlighted practical considerations related to scalability, operational integration, and the handling of larger and more diverse datasets.

Maturity of Collaboration

Beyond size and scale, the DFRS ecosystem showed clear signs of increasing maturity. Collaboration moved progressively from exploratory exchanges towards more structured interactions, including recurring evaluations, joint analyses, and alignment with external initiatives and standards.

Participants increasingly used DFRS as a reference framework to discuss how safety-related data can support policy objectives, assessment programmes, and operational decision-making. This maturation laid important groundwork for subsequent chapters of this report, which illustrate how ecosystem growth translated into business transformation, evaluation results, and operational impact.

Positioning within the European Data Space Landscape

DFRS continued to position itself within the broader European data space vision, including ongoing initiatives related to the European Mobility Data Space (EMDS). In this context, 2026 marked important progress toward establishing a common data exchange approach for safety-related events that can be applied consistently across Europe.

Central to this approach is the collaboration with the MDS. MDS is being developed and aligned as the intended data exchange platform for DFRS related data from OEMs and service providers across Europe, independent of national boundaries. This positioning reflects a strategic decision to rely on a shared, sovereign, and standards based data space rather than fragmented national or project specific solutions.

While operational integration is still ongoing, alignment on principles, direction, and target architecture progressed throughout 2026, establishing MDS as a key building block for future DFRS data exchange.

Industry Collaboration (Euro NCAP)

Collaboration with Euro NCAP continued to be a key strategic element of the DFRS initiative in 2026. This collaboration reflects the growing importance of connected vehicle functions and realtime safety information within vehicle safety assessment frameworks.

The relevance of this collaboration increased significantly with the introduction of the Euro NCAP Safe Driving / Vehicle Assistance Protocol, Version 1.1 (October 2025), which is implemented for vehicle assessments from January 2026.

The Euro NCAP 2026 protocol extends the assessment of vehicle safety beyond traditional passive and active safety systems, placing stronger emphasis on speed assistance, vehicle assistance, and connectivitybased functions. Within this framework, the availability, accuracy, and timeliness of digital information including speed limits and safety related events are explicitly considered.

In particular, the protocol introduces detailed assessment criteria for:

- Speed Limit Information Functions (SLIF),
- Advanced and dynamic speed limits, and
- Local hazard warnings, including construction zones, stopped or brokendown vehicles, postcrash events, adverse weather, and other safetycritical situations.

Membership Growth and Diversity

In 2026, the DFRS ecosystem further broadened its membership base. New organisations joined across different segments of the road safety value chain, including vehicle manufacturers, service providers, technology companies, and road authorities. This diversity reinforced DFRS as a multi-stakeholder environment where different perspectives and requirements can be addressed within a shared framework.

The growing mix of participants contributed to a richer set of use cases and a more balanced dialogue between data providers, data users, and public stakeholders. At the same time, the onboarding of new members benefitted from increasingly established processes, shared documentation, and clearer expectations regarding data sharing, governance, and evaluation activities.



DFRS Partners as of September 2026:

OEMs

Data, Technology & Service Providers

Road Authorities / Public Bodies





4.

DFRS Ecosystem Data Flow



DFRS Ecosystem Data Flow

Progressive Integration of OEMs and Service Providers via MDS

The integration of DFRS with MDS is being pursued as a progressive, pan European process. Over time, OEMs and service providers are expected to connect their systems to MDS and make safety related data available through this shared data exchange environment.

This gradual approach recognises differences in readiness levels across participants and allows onboarding to proceed in a controlled manner. It also supports early validation of governance, access control, and interoperability mechanisms before broader rollout.

The longterm objective is to enable DFRS data generated by OEMs and service providers to be exchanged via MDS for use by all DFRS Members across Europe, supporting safety related applications, evaluations, and operational deployments without restricting data exchange to a single country or region.

Data Governance and Interoperability

Data governance remained a central focus throughout 2026. DFRS places strong emphasis on data sovereignty, transparency, and clarity of roles between data providers and data users.

Interoperability discussions addressed both technical and semantic aspects, ensuring that safety related events can be interpreted consistently across different organisations and geographies. This alignment is a prerequisite for enabling crossborder use of DFRS data via a common data space infrastructure as participation expands.

Operational Readiness and Scalability

As the number of participants potential data volumes increase, operational readiness and scalability are key considerations. In 2026, the focus was therefore placed on establishing robust foundations rather than immediate fullscale operation.

These foundations include:

Repeatable onboarding processes for OEMs and Service Providers

Stable data exchange mechanisms suited for continuous operation,

The ability to support multiple safety related use cases in parallel across Europe.

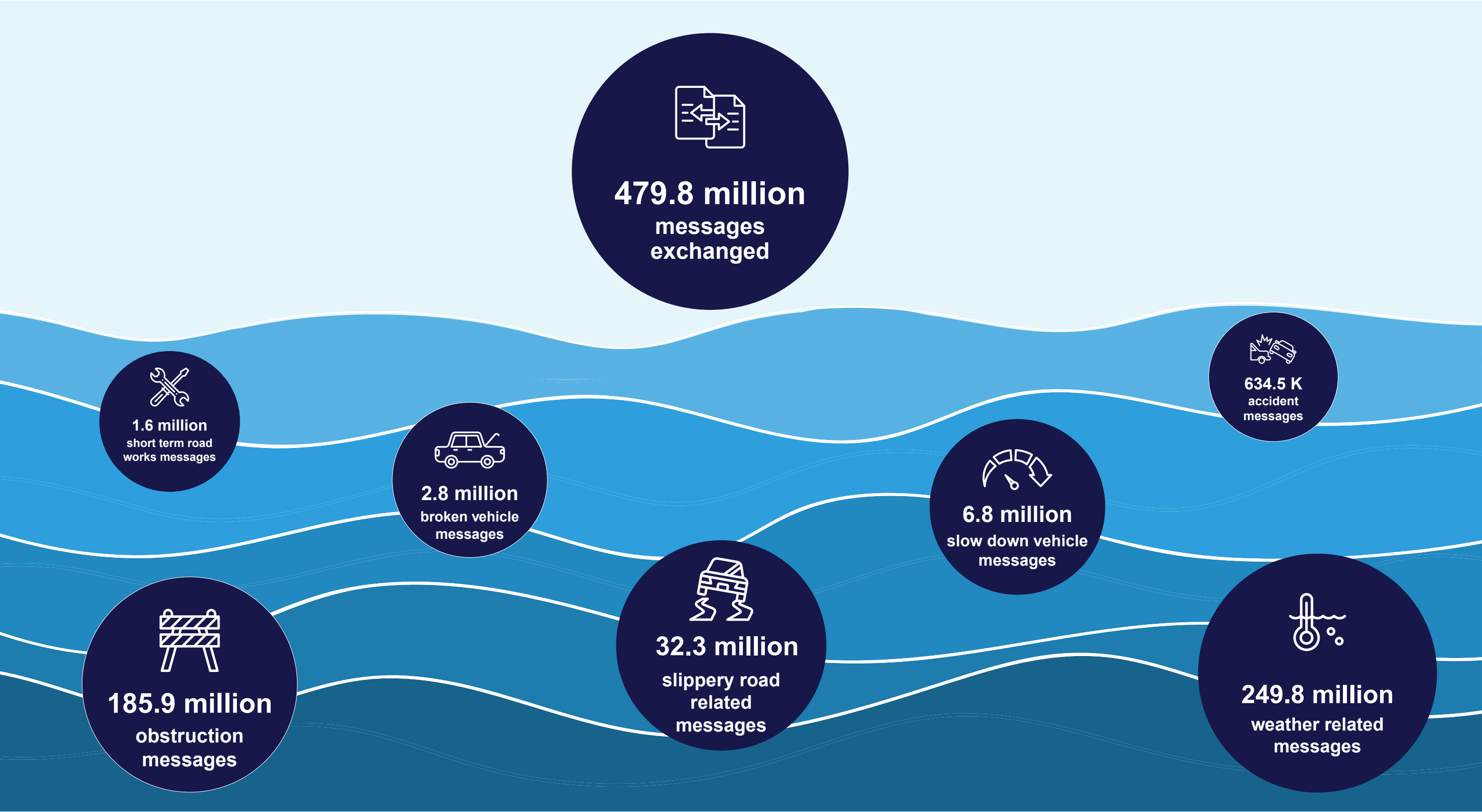
By embedding DFRS data exchange within a scalable data space framework, the initiative aims to support longterm growth without compromising governance or operational stability.

Dive into the data to see the tangible impact of our collective efforts in making Europe's roads safer every day!

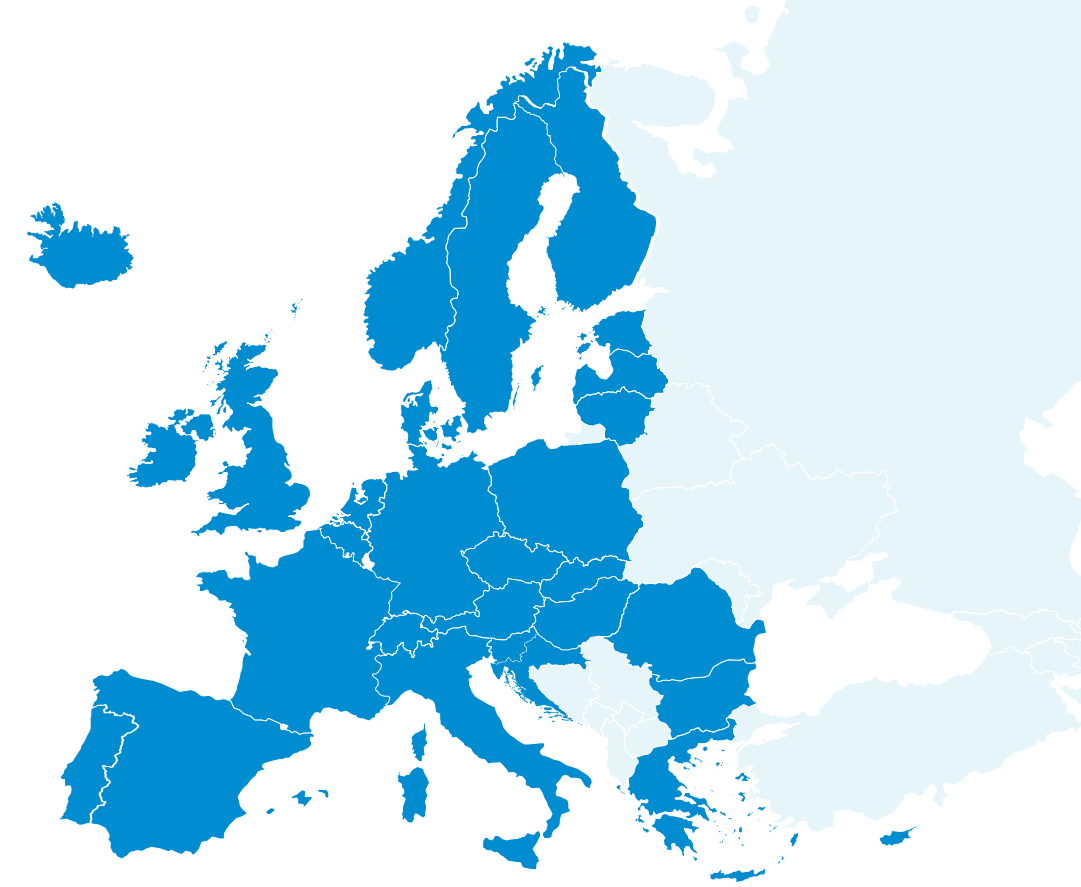
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DFRS Ecosystem Volumetrics

From June 2025 to June 2026, the DFRS ecosystem exchanged an average of 39.9 million messages per month, approximately eight times the typical monthly volume recorded between 2024 to 2025.



5. DFRS Data Impact across Europe



DFRS Data Impact Across Europe

The deployment of DFRS data across Europe delivers measurable improvements in road safety, operational responsiveness, and data-driven decision-making. This section of the impact report presents a series of case studies that highlight the diverse applications and impacts of DFRS data among consortium members across Europe.

The impact of DFRS is demonstrated across three strategic dimensions:



Impact through Business Transformation: Exemplified by members such as Norwegian Public Roads Administration (NPRA), where DFRS data is driving organisational change and innovation in traffic management.



Impact through Evaluation: Highlighted by members such as INRIX, who has shown how Service Providers use DFRS data to assess and enhance service performance.



Impact through Operation: Examples demonstrated by Fintraffic, where real-time OEM-generated warnings are improving situational awareness and accelerating incident response, particularly in remote areas.

Together, these examples underscore the growing importance of harmonised, high-quality vehicle data in shaping the future of road safety and infrastructure management across Europe.

Alongside membership growth, DFRS continued to expand its geographic and operational coverage. Data contributions and use cases increasingly reflected different national and regional contexts, supporting a more representative European perspective on road safety challenges.

This broader coverage enabled comparisons across regions, facilitated learning between DFRS members, and helped identify common patterns and challenges that benefit from coordinated approaches. As a result, DFRS strengthened its position as a European-scale initiative rather than a collection of isolated pilots.

Impact through Business Transformation

National Road Traffic Data Portal (NDW)
Membership of DFRS and the access to SRTI has enabled NDW to:

Enhance Insight >



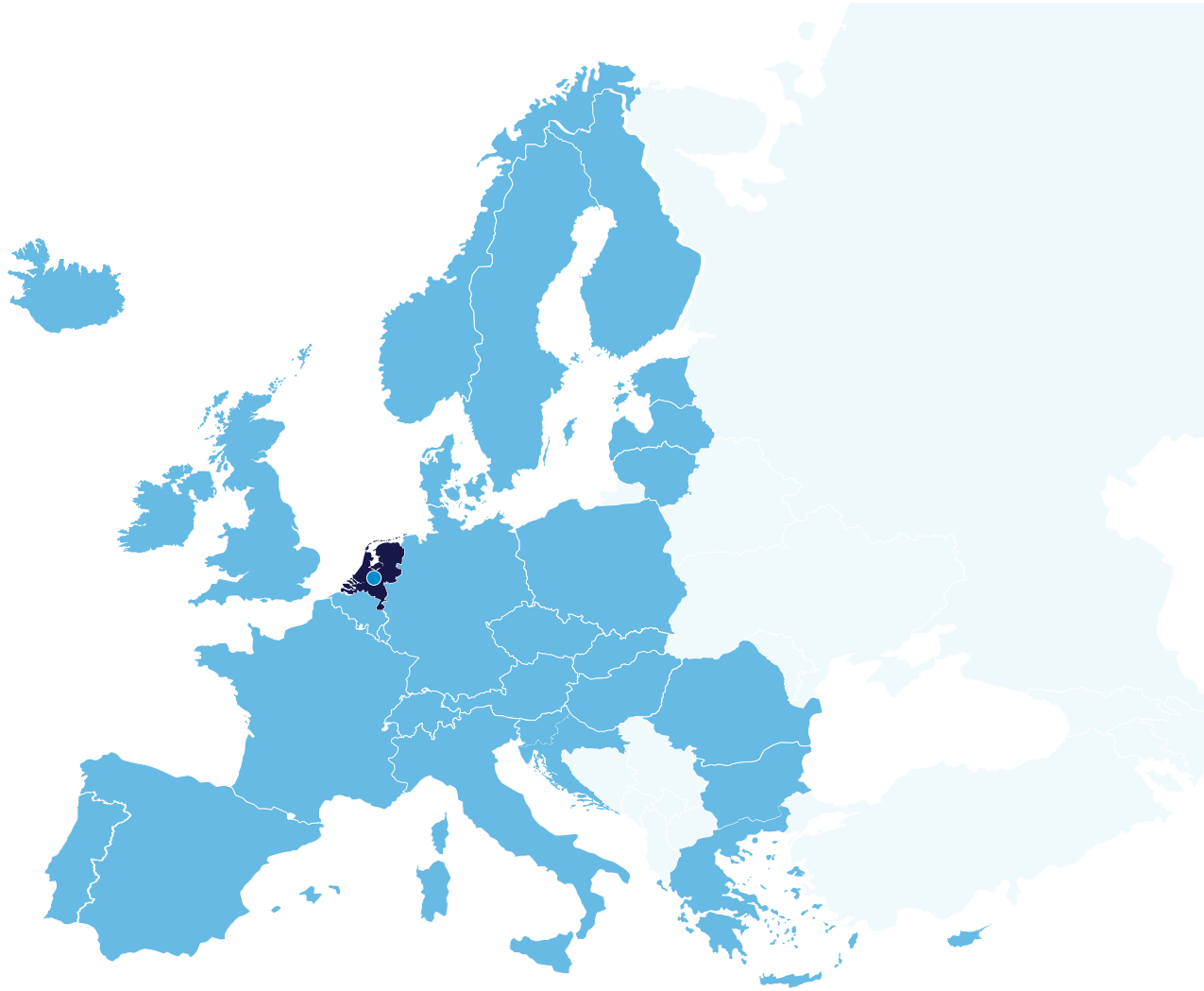
Ease of Use >



Actual Incidents >



Cleanup >



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Norwegian Public Roads Administration (NPRA)

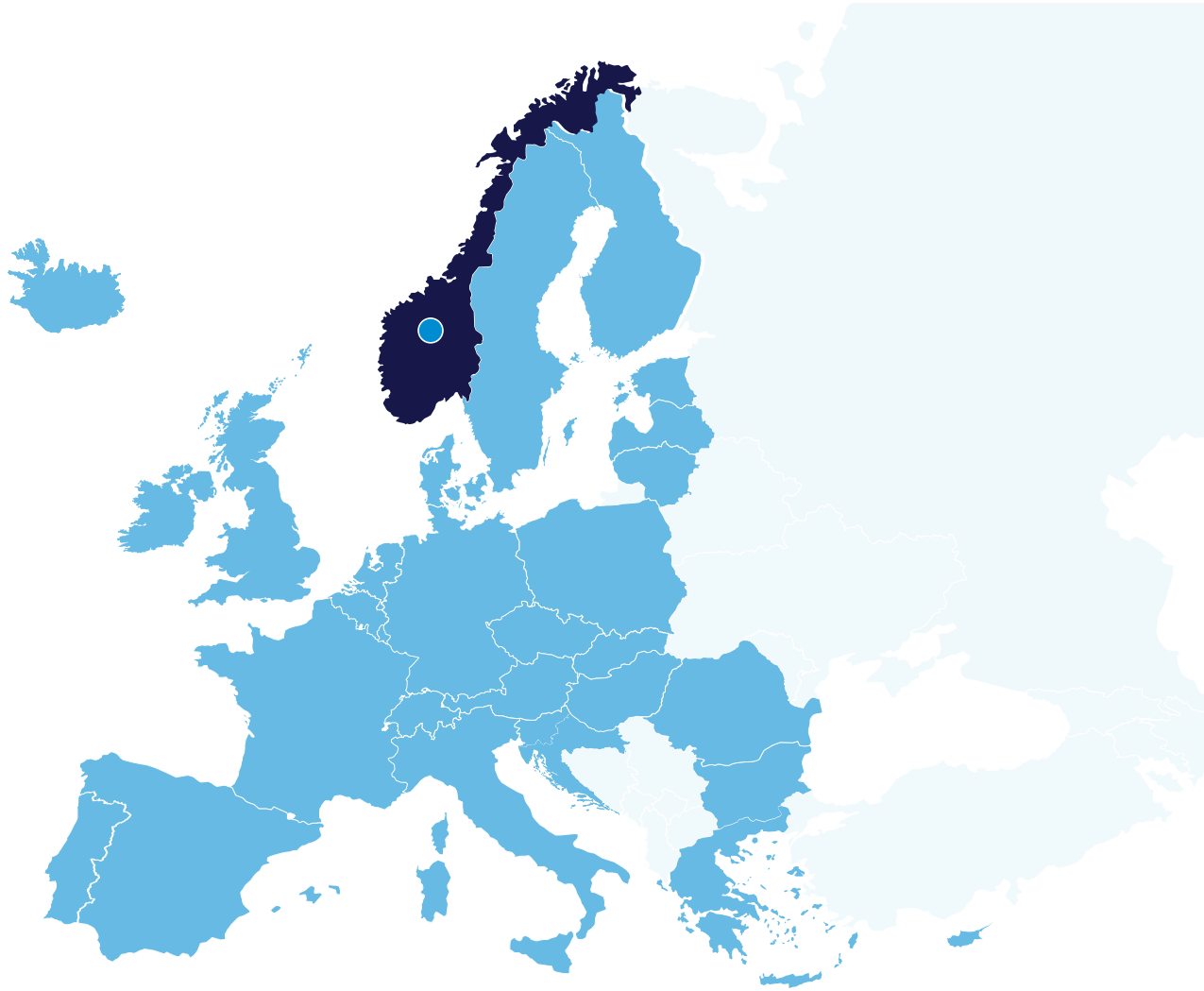
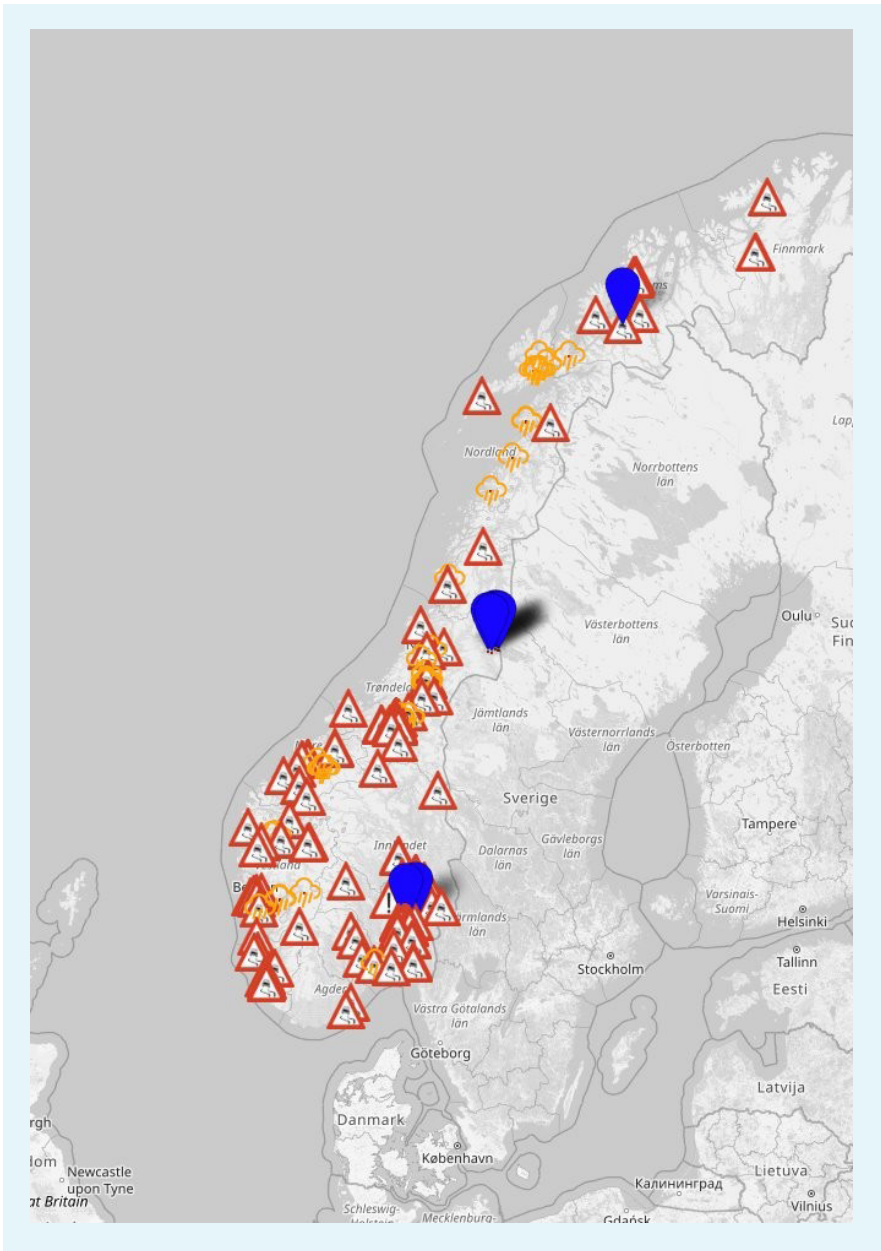
Why the Norwegian Public Roads Administration (NPRA) Is a Member of DFRS

NPRA's participation in DFRS is fundamentally about transforming safety-related traffic information into an operational, data-driven capability. This represents a shift from a fragmented, source-specific approach to data management toward an ecosystem-based model in which data from both public and private stakeholders can be combined and leveraged to support road safety operations.

In the short term, the ambition for NPRA is to use DFRS data as decision support for traffic operators alongside other relevant information sources like floating car data, weather data, traffic camera feeds, travel time information, roadside assistance reports, and traditional traffic data. The long-term vision is more transformative: events detected by one or more vehicles could eventually achieve a level of quality and reliability that enables machine-to-machine communication without human intervention.

DFRS enables the development of new ways of working in traffic management and traffic information services through business transformation focused on data capabilities and operational practices. However, raw events alone are not sufficient. They must be filtered, enriched, aggregated, and presented in ways that reduce noise and provide clear indications of actual incidents. Operators need better decisions, not simply more alerts.

These capabilities are directly aligned NPRA's strategic shift toward platform-based and event-driven architecture. The data platform serves as a foundation for collecting, storing, processing, analysing, reporting, and sharing data. To achieve real-time operational value, information generated by sensors, events, and digital services will be collected and made available through scalable and standardised mechanisms.



Streaming technologies are particularly well suited to this purpose because they enable high-performance data pipelines, real-time analytics, and continuous data integration rather than relying on traditional batch processing, the collaboration with MDS is a great initiative in this direction.

As DFRS data becomes integrated into data platforms, streaming pipelines, dashboards, and operational decision-support systems, NPRA moves from a fragmented landscape of isolated systems toward a more event-driven, platform-based, and data-centric model for road safety and traffic management.

Impact through Evaluation

Dirección General de Tráfico (DGT)

The Directorate General for Traffic (DGT) contributes to road safety and to the DFRS ecosystem by providing, through the NAP, data corresponding to SRTI events or conditions defined in Commission Delegated Regulation (EU) N° 886/2013.

The following matrix summarises the data sources currently used by DGT for traffic management together with their respective geographic coverage:

	TMC	POLICE	ROAD MAINTENANCE SERVICE	MOTORWAY TOLLING CONCESSIONARE	DGT 3.0	DFRS/OEM	112 including eCall
(a) temporary slippery road							
(b) animal, people, obstacles, debris on the road							
(c) unprotected accident area;							
(d) short-term road works;							
(e) reduced visibility;							
(f) wrong-way driver;							
(g) unmanaged blockage of a road;							
(h) exceptional weather conditions.							

Can detect the event

High coverage

Limited coverage

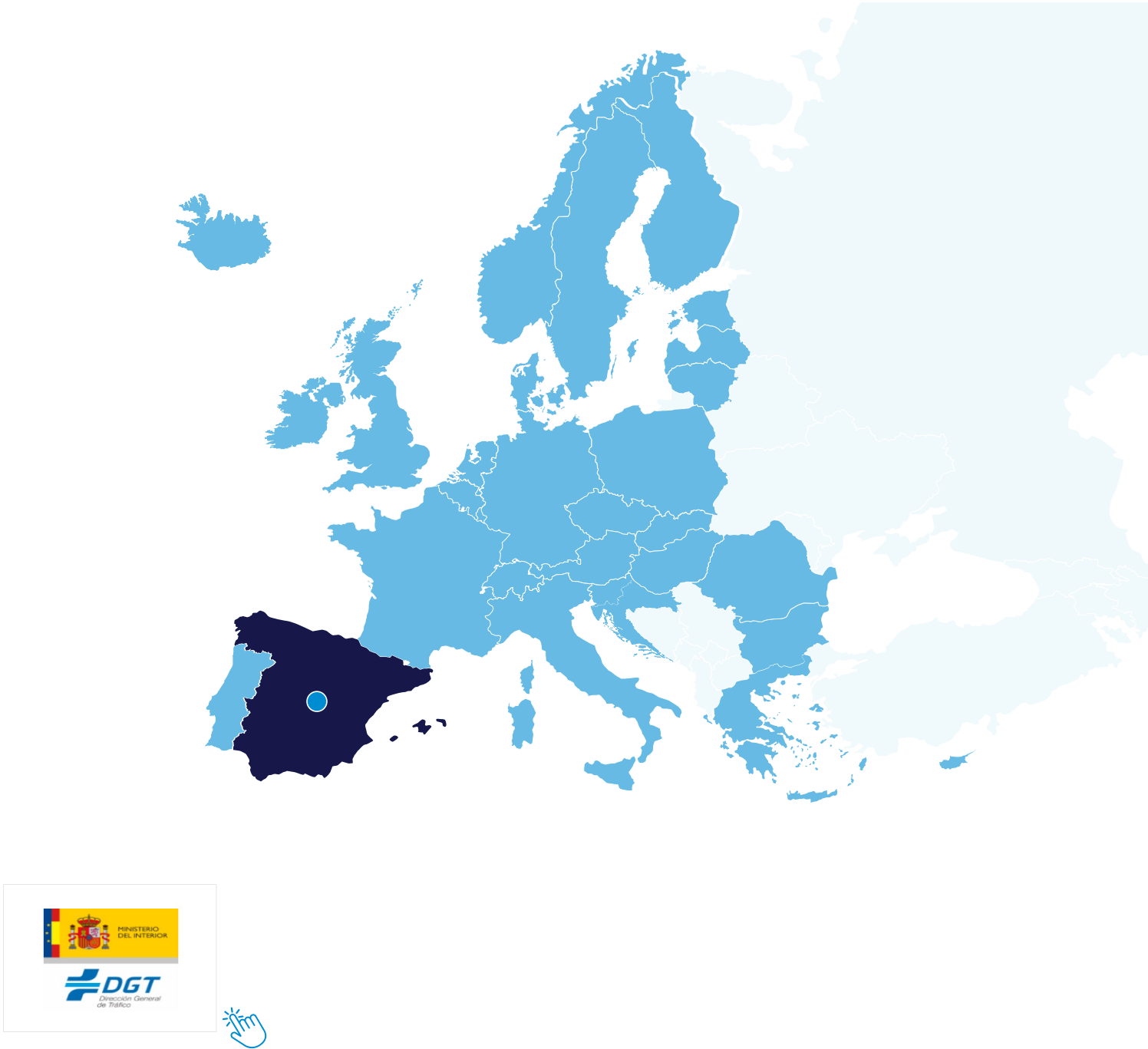
Over the past few months, DFRS dataset has been received via the connection to MDS. The dataset covers the period starting on May 19, 2026. An initial analysis has been carried out to assess its main characteristics, including event classification continuity of data reception, geographic coverage, and the reliability of the reported events.

Messages are received continuously over time, although there are occasional peaks that have been observed. For example, a significant increase in the number of messages was recorded on 4 and 5 June, coinciding with episodes of exceptionally heavy rainfall, as shown in the following figure:

 Click here to view the Image

The dataset provides nationwide geographic coverage. However, coverage is still limited in certain areas, particularly in sparsely populated regions of Spain.

A preliminary assessment of the reliability of the reported events has also been conducted, as this is essential to prevent misinterpretation and to ensure that the data can be reliably used by downstream systems and published through external services.



A particularly high number of events have been reported under the categories



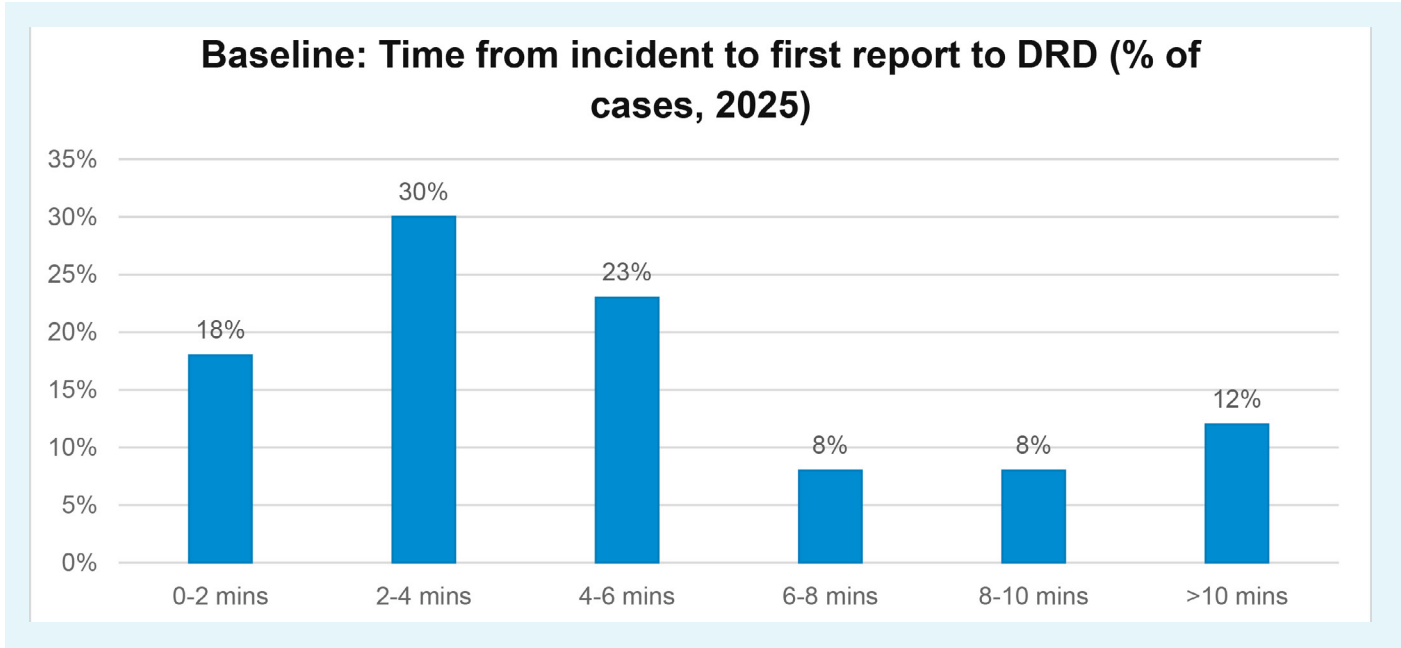
The LOW_FOG and SLIPPERY_ROAD events are currently being evaluated by comparing their locations and timestamps with weather observations provided by AEMET. The preliminary results show significant inconsistencies, indicating that further analysis is required to assess the reliability of these event categories.

Danish Road Directorate (DRD)

Incident detection in the Danish Traffic Management Centre

The Danish Road Directorate (DRD) intends to use data from the DFRS ecosystem as a new source of information in the operational traffic management centre, especially as means to detect accidents faster. The traffic management centre already receives information about most accidents from the Danish 1-1-2 system as well as calls from drivers. The operational staff can also observe important sections of the road network via CCTV, which is a very important tool for verification of information from drivers. In 2025, accidents were reported to the traffic management centre via these sources within 10 minutes in 88 % of all cases which is considered the baseline.

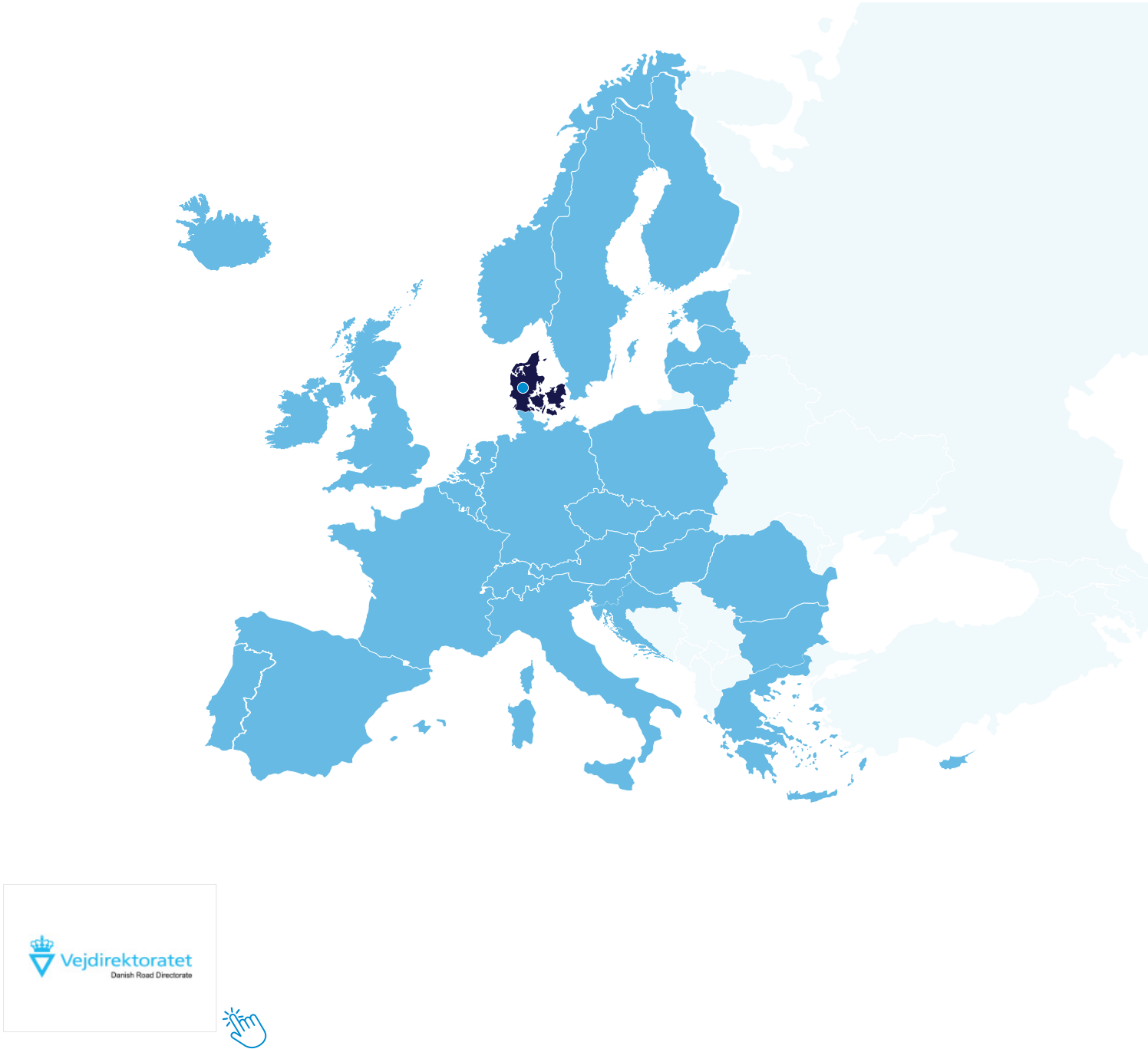
DRD believes that data from DFRS can help the traffic management centre to detect accidents or other incidents faster than via the existing sources, but also that DFRS data can be valuable as a means of verification where the road is not covered by CCTV.



Faster detection of accidents will help the traffic management centre to initiate the actions required to manage the accident and eventually the clearing of the accident site. Drivers could be alerted to reduce the risk of follow-on accidents, and some drivers can change their route to avoid queuing behind the accident site. In this way, there are potential socioeconomic benefits. The project "KONTRA" within the DRD is working on the methodology to calculate the delays resulting from incidents and their socioeconomic costs.

Desktop research conducted in 2025 and 2026 indicates possible reductions in detection time by comparing DFRS data to the actions recorded in the traffic management centre, including the management of the first report from existing sources. Currently, the work is centred around the traffic management centre's Business Intelligence (BI) setup. This work has shown that the detection time can be reduced to a significant improvement over the baseline.

[Click here to view the Image](#)



Over a two-month period, 150 DFRS events (incidents, broken down vehicles, obstacles on the road, etc.) have been matched to cases known in the operational traffic management centre. In these 150 cases, the first DFRS event is on average 7 minutes faster than the first report to the traffic management centre via the current sources.

As a next step, DRD plans to make a trial in the operational traffic management centre to test the usability of DFRS data as a new source. It will be part of the trial to evaluate how reliable alerts need to be (ie., based on just one vehicle or several vehicles?) in order to be beneficial for staff, and what reduction in detection time that can be attained in real-life working situations.

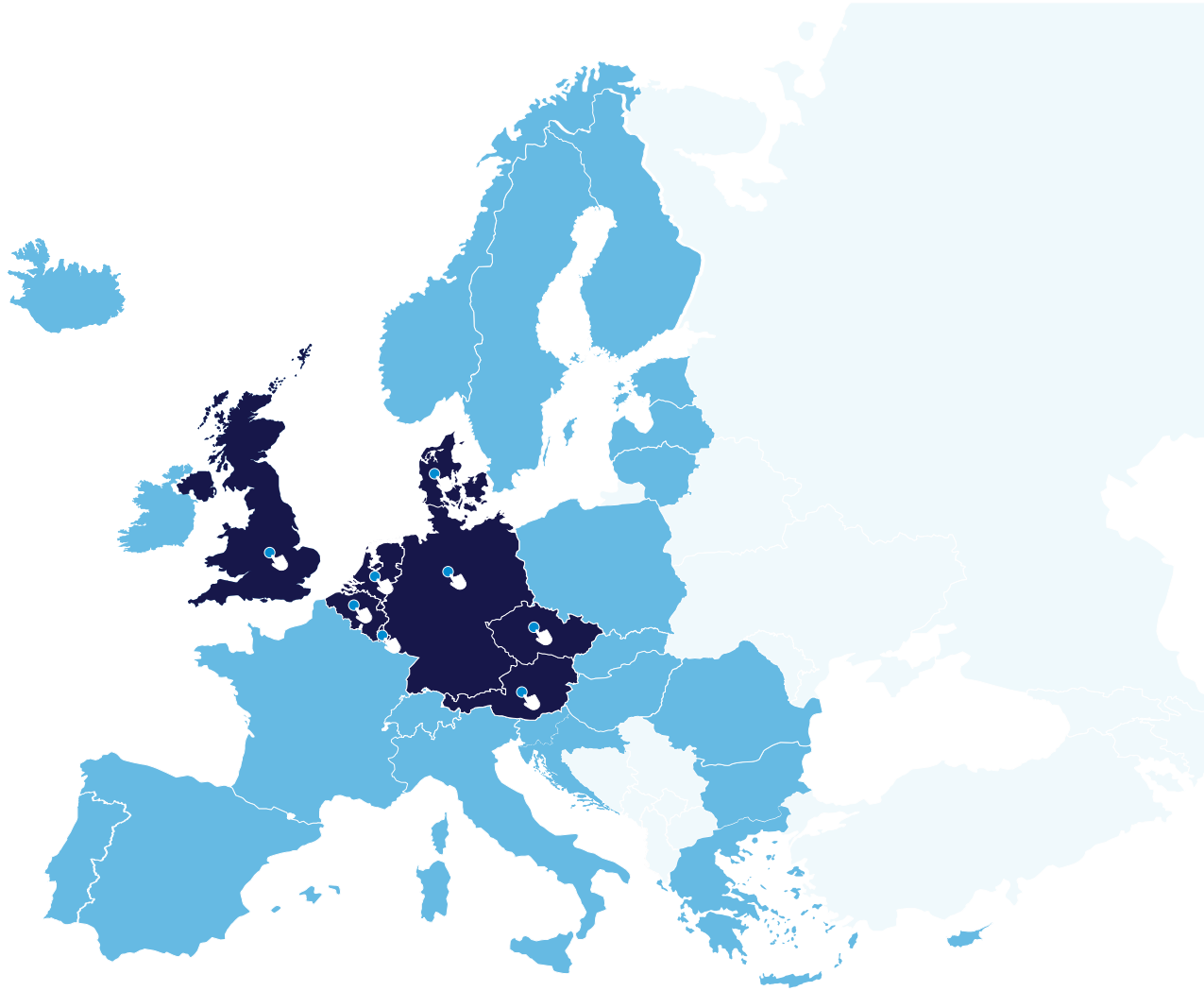
INRIX

As a long-standing member of the DFRS ecosystem, INRIX continues to assess the quality and operational value of vehicle-generated safety events using its extensive Floating Car Data (FCD) network. In 2026, INRIX analysed a series of accident notifications originating from multiple OEMs across several European countries, including Germany, England, Denmark, Austria, Belgium, Luxembourg, the Netherlands and the Czech Republic. The analysis compared the location and timestamp of DFRS accident events against real-time traffic conditions derived from connected vehicle probe data.

The evaluation demonstrated a strong correlation between DFRS accident notifications and the subsequent formation of traffic disruption. Across all assessed examples, the accident location and timestamp provided through DFRS aligned closely with the point at which traffic conditions rapidly deteriorated, transitioning from free-flow conditions to severe congestion. The visual analysis showed traffic speeds changing from normal flow (green) to congestion (red and black), confirming that DFRS notifications accurately identified the onset and location of the incident.

The findings highlight the unique value of vehicle-generated safety data as an early indicator of roadway incidents. Because DFRS events originate directly from connected vehicles involved in, or immediately adjacent to, an incident, they provide traffic managers, service providers and vehicle manufacturers with situational awareness at the earliest possible moment. In many cases, there is no alternative data source capable of identifying the precise location and timing of an accident sooner. This enables earlier incident verification, faster operational response and improved dissemination of safety warnings to other road users.

These examples further demonstrate how combining DFRS safety messages with advanced mobility analytics can strengthen incident detection capabilities, enhance network monitoring and support faster, data-driven decision making across Europe’s road networks. By leveraging connected vehicle data at scale, the DFRS ecosystem continues to provide actionable insights that improve road safety, reduce incident response times and increase awareness of emerging hazards.

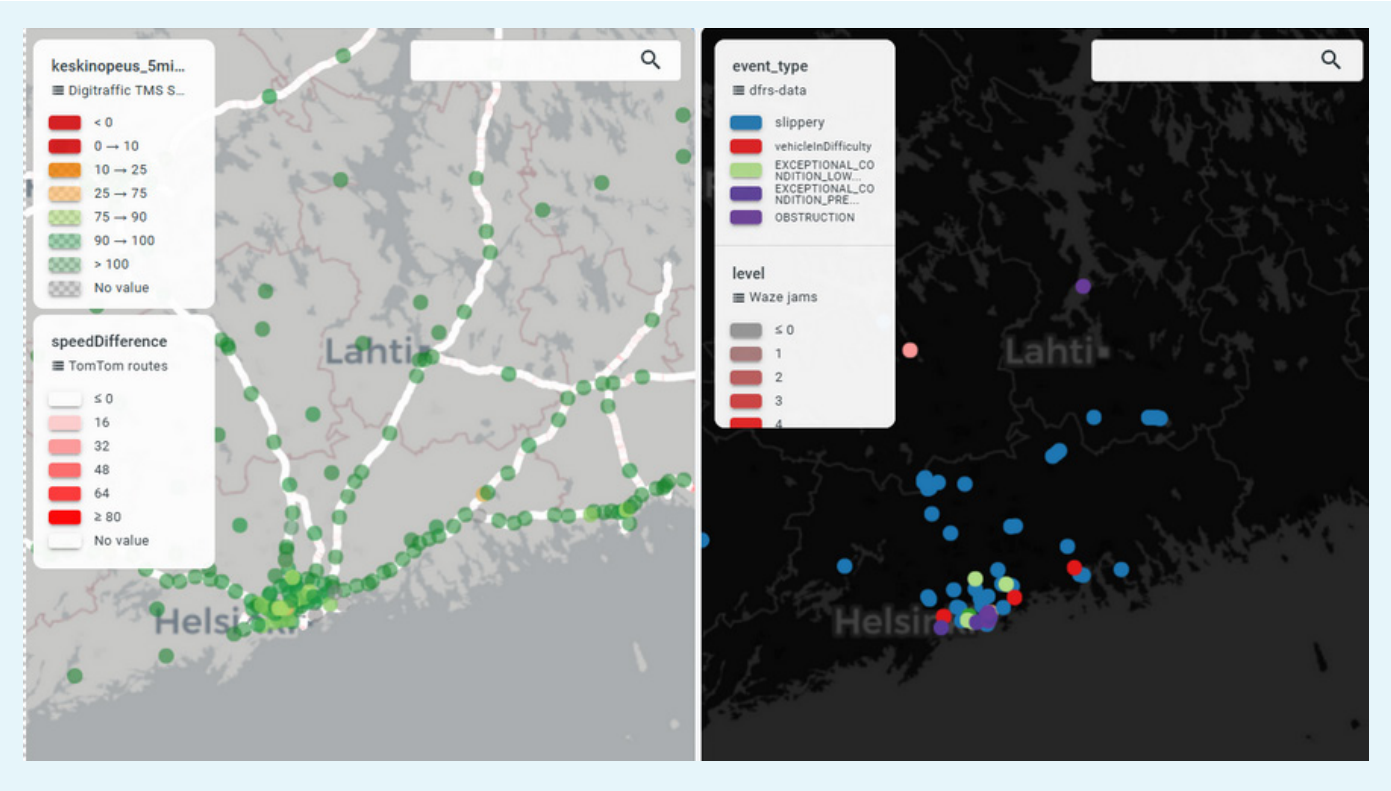


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Impact through Operation

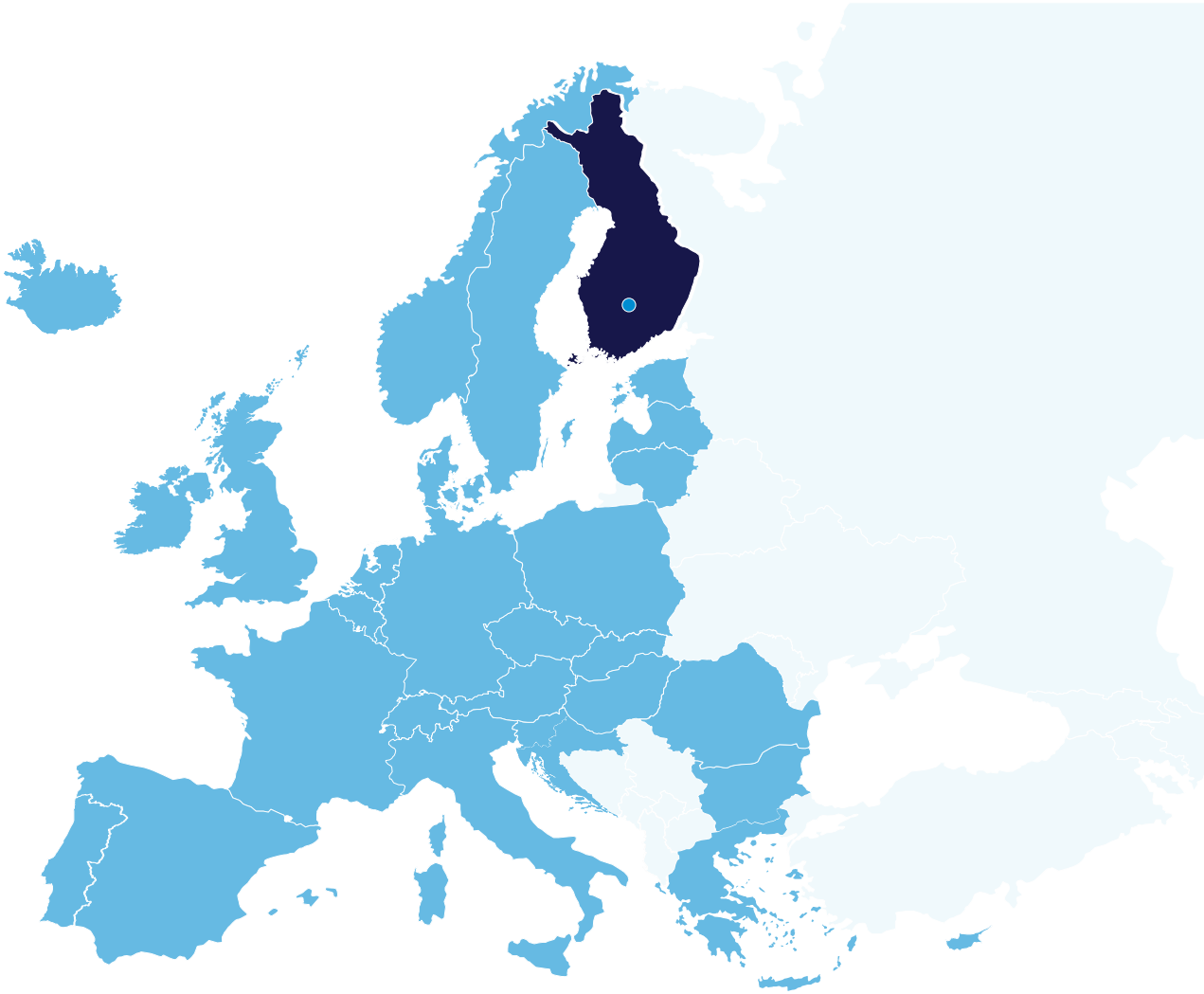
Fintraffic

Fintraffic has been submitting data to DFRS via POST Luxembourg since June 2024 and has been receiving data since summer 2025. It has previously evaluated slippery road events and accident data by comparing DFRS inputs with Finnish data sources, including its own weather-related datasets. Since January 2026, DFRS dashboards have been displayed on video walls in Fintraffic’s Traffic Management Centres, enabling operators to view DFRS events as part of their daily operational tasks. An example of this view is shown below.



Fintraffic has also begun integrating DFRS events into a new visualisation and impact view for traffic management operators. The platform combines DFRS data with traffic announcements, traffic situations, weather information, and speed data through several visual displays. Example views are shown below and will be evaluated by the TMC in autumn 2026, with production deployment expected during 2027.

 [Click here to view the Image](#) 

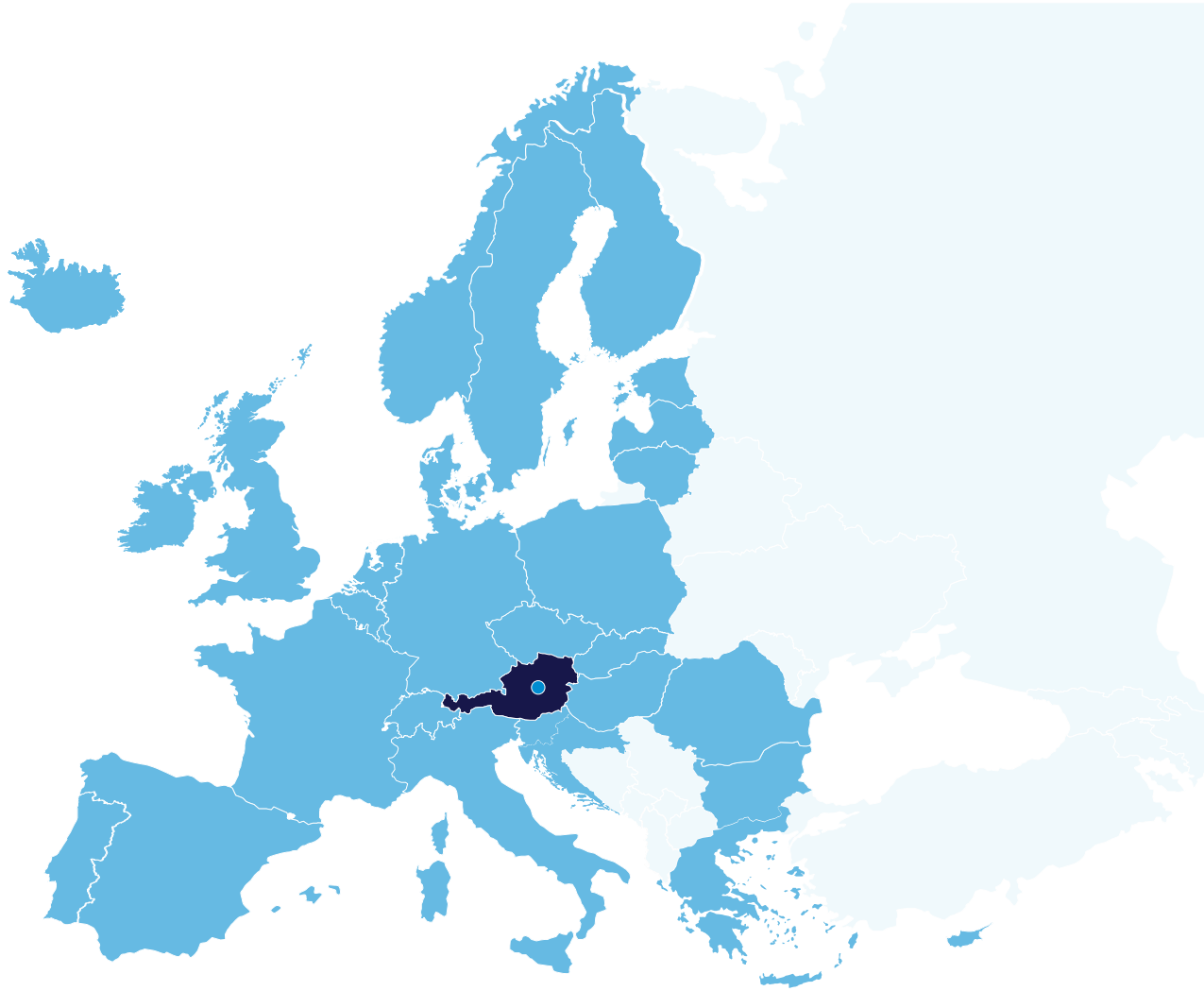


ASFINAG

ASFINAG has launched a connected-vehicle accident alert service across Austria’s motorway and expressway network. Since June 1, 2026, ASFINAG has integrated connected-vehicle accident data from C-ITS and DFRS into its traffic management system. This upgrade covers all Austrian motorways and expressways, enabling near real-time incident detection and faster emergency responses. Following a successful three-month evaluation period, the organization decided to relay DFRS-originated accident alerts directly into traffic operations without requiring manual human confirmation.

As a real-world example, on June 24, 2026, a passenger car from a manufacturer participating in DFRS collided with the rear of a truck on Austria’s A8 highway. The vehicle automatically detected the collision and transmitted the event data to the manufacturer’s backend. From there, the data was streamed via the Mobility Data Space (MDS) using Apache Kafka technology. ASFINAG received and validated the alert against its internal records, registered it as a new incident, and forwarded it to its traffic management system instantly activating the incident management process. During the three-hour event, ASFINAG continuously published updates of operational “L3 data” regarding lane closures and traffic jam lengths.

Three months after the launch of the new alert service, 43 accidents have been reported. Of these, 84% were confirmed as valid.



ASFINAG



Over a 3 months period



43
Accidents reported



83%
Confirmed as valid

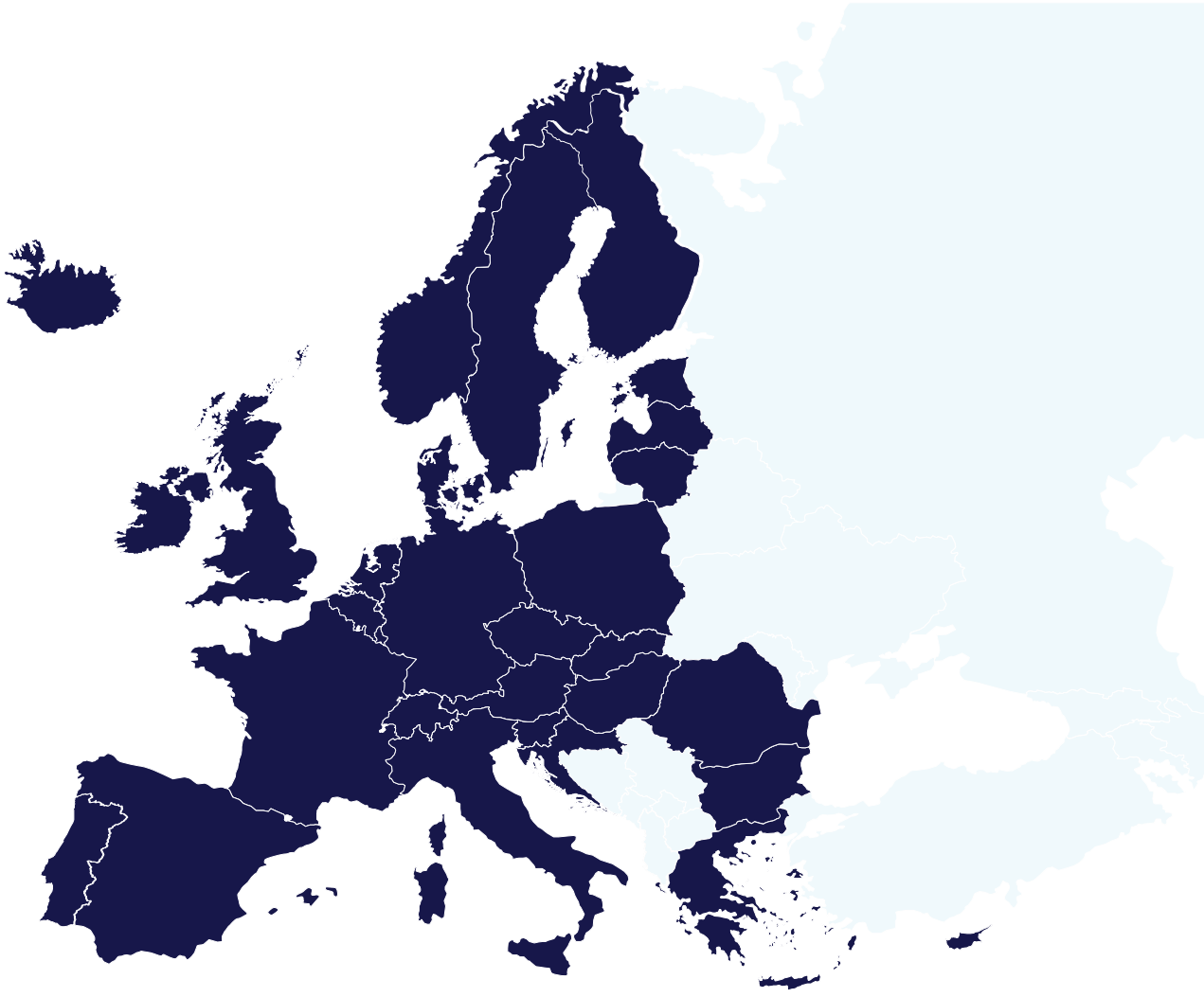
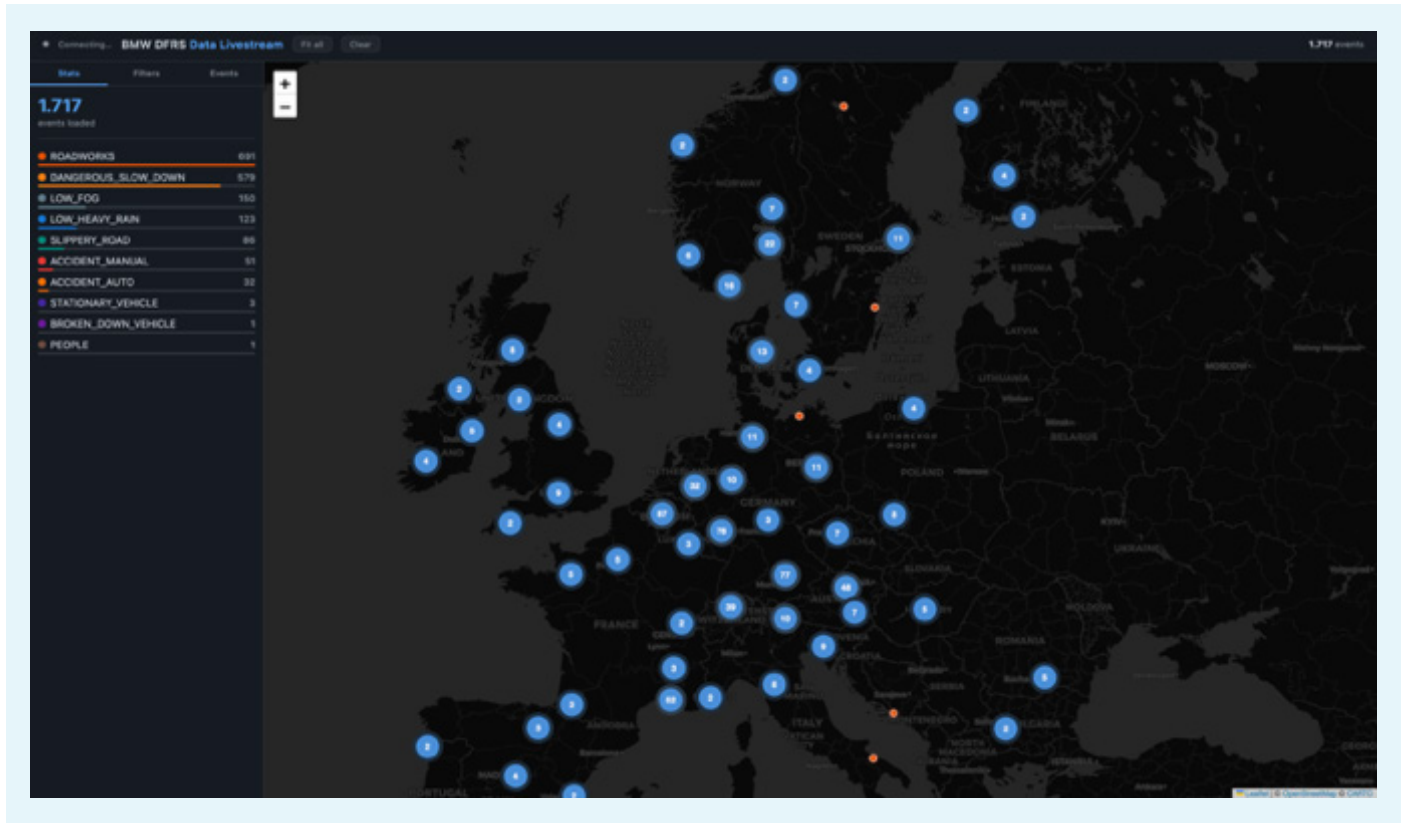
BMW

With the new 2026 iX3 BMW launched a new service called “Local Hazard Warning”, increasing safety for all drivers across Europe. This is reached by leveraging vehicle generated data being sent to the backend, processed there and being delivered back to other vehicles by their existing distribution channels. Furthermore, BMW introduced an ultra-low latency down-channel, allowing for sub-second delivery for critical safety information into all eligible vehicles by remote software update.

Bosch is the selected service provider for that feature, tapping into the DFRS ecosystem’s cross-OEM data asset for generating the most precise and up-to-date local hazard information.

DFRS with its unique approach to data sharing and collaboration, is therefore laying the ground for a completely new customer experience concerning quality and timeliness of this critical information. And all this without heavy investment inside vehicles or infrastructure.

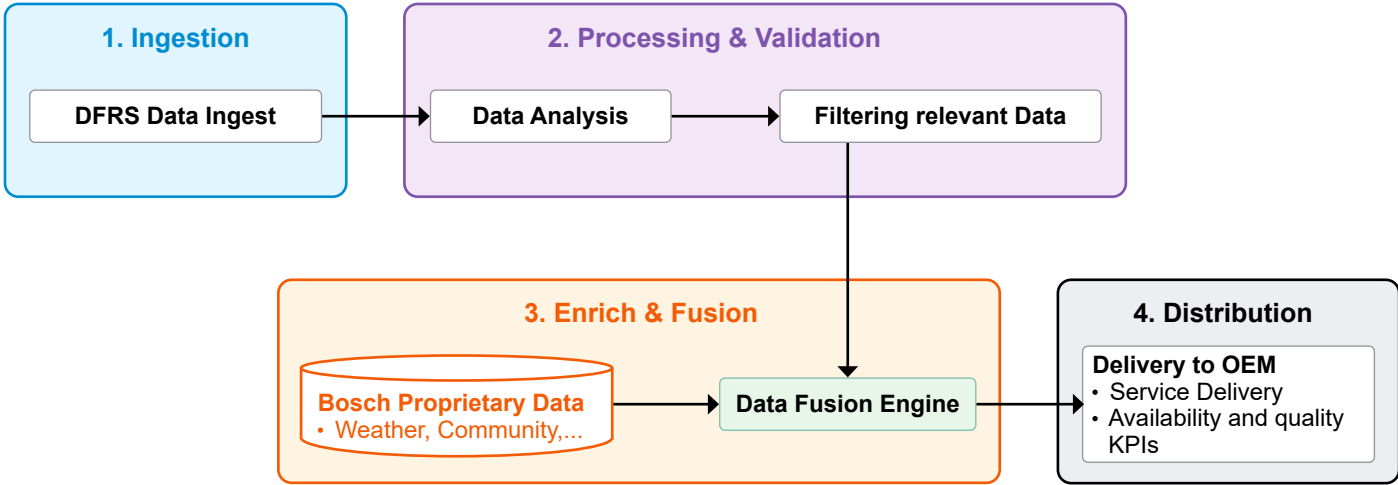
This is also valued by Euro NCAP, where the new iX3 (and all other vehicles from now on) get credits for sharing and using data across all OEMs, increasing safety on Europe’s roads.



Bosch

Bosch Road Hazard Service helps vehicle manufacturers provide drivers with predictive warnings about road, weather and traffic hazards ahead, covering all Euro NCAP-relevant warning types and countries. The service combines data from multiple input sources and transforms it into reliable, precise, and up-to-date hazard information. This allows OEMs to focus on vehicle integration and customer experience, while Bosch manages data processing, quality monitoring, performance validation, and ongoing Euro NCAP compliance support.

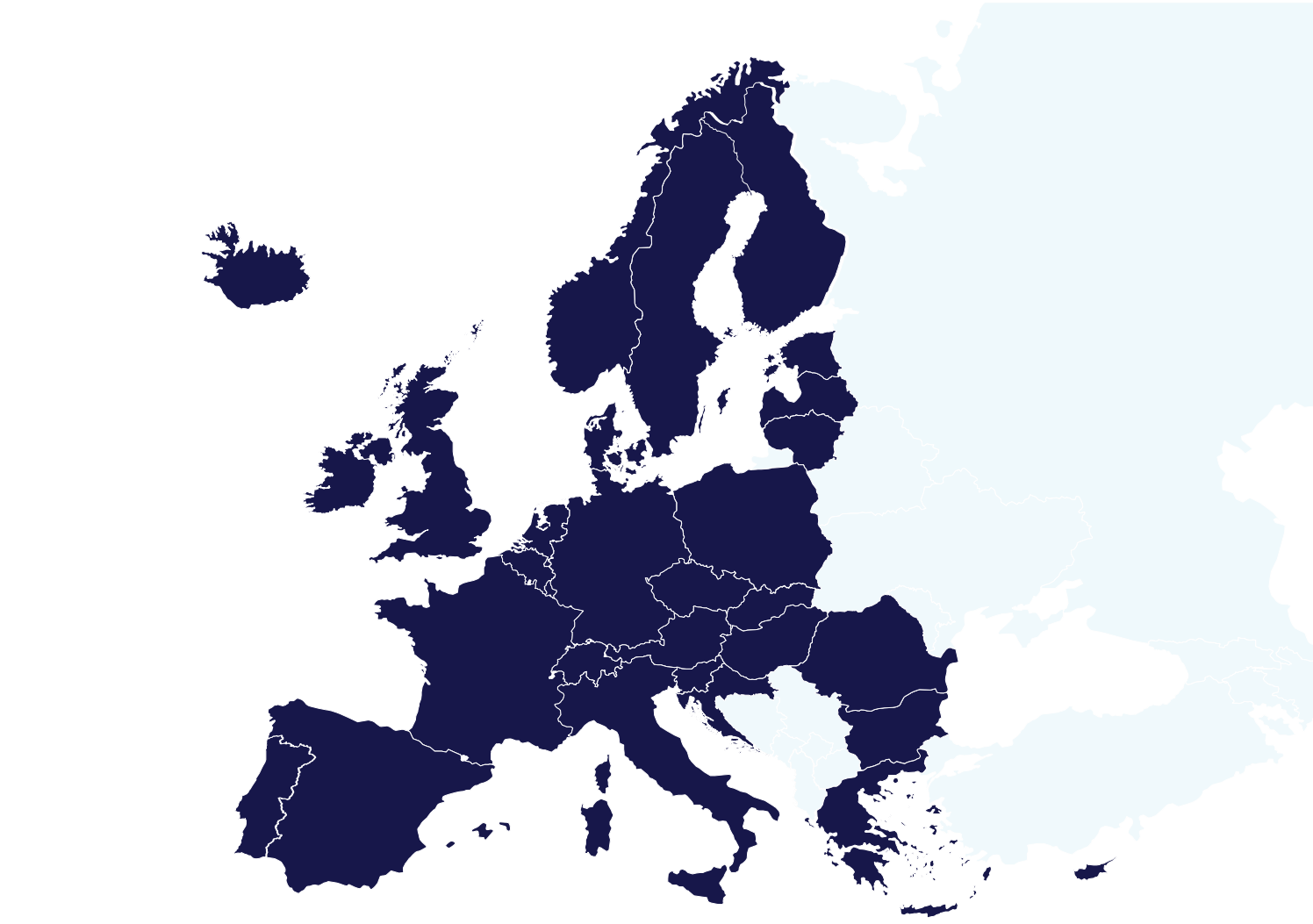
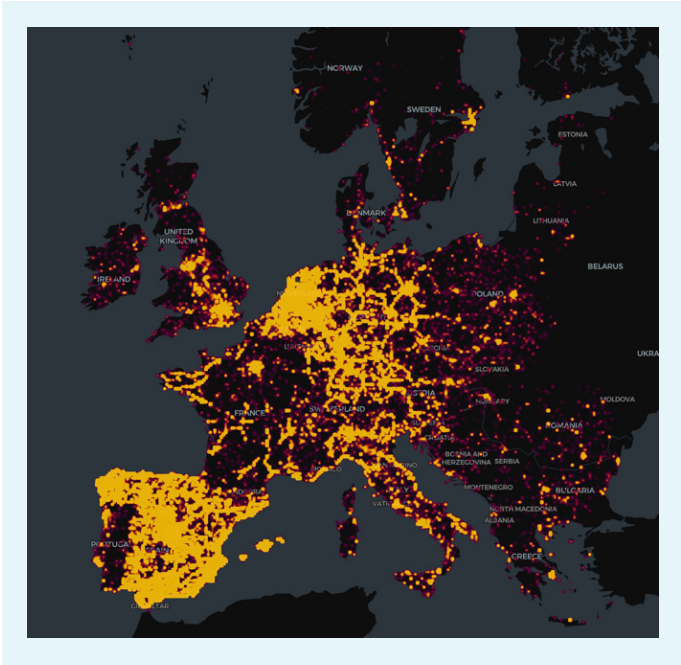
DFRS data is one important input for the Bosch service. Bosch receives the data through MDS connectors and applies its own processing chain to analyze, filter, validate, and fuses it with additional Bosch sources, including vehicle, infrastructure, and community data.



The resulting hazard service is then provided to OEMs such as BMW, enabling them to deliver high-quality, low-latency warnings to their vehicle fleets and ultimately contribute to safer roads.

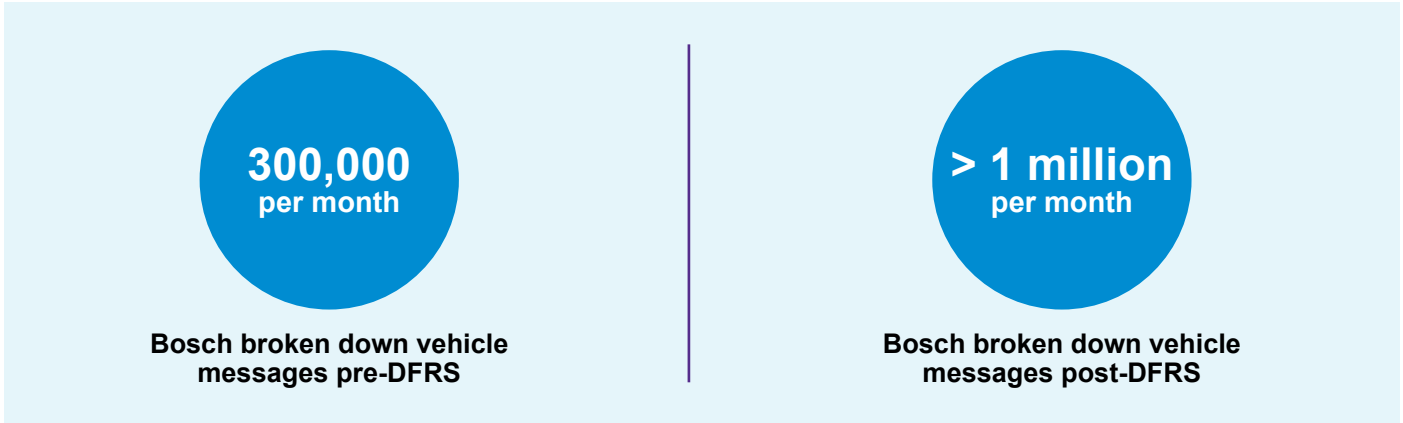
To put this into perspective, DFRS was a key driver in enabling Bosch to increase, for example, the number of broken-down vehicle warnings from 300,000 per month in January 2026 to more than 1 million per month in August 2026. Based on Bosch’s quality analysis and ongoing monitoring, these warnings achieve a precision of 93.4%.

To illustrate the coverage, this heatmap shows broken-down vehicle data collected over a 10-day period.



With the BMW integration, Bosch became the first service provider to bring a road hazard warning service fully compliant with Euro NCAP requirements into series operation. The integration demonstrates how collaboration between vehicle manufacturers and service providers can increase the availability, accuracy, and reach of safety-relevant information on European roads.

 [Click here to view Bosch Visualisation Dashboard](#) 



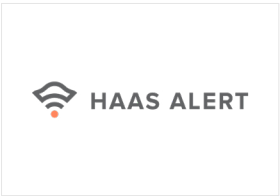
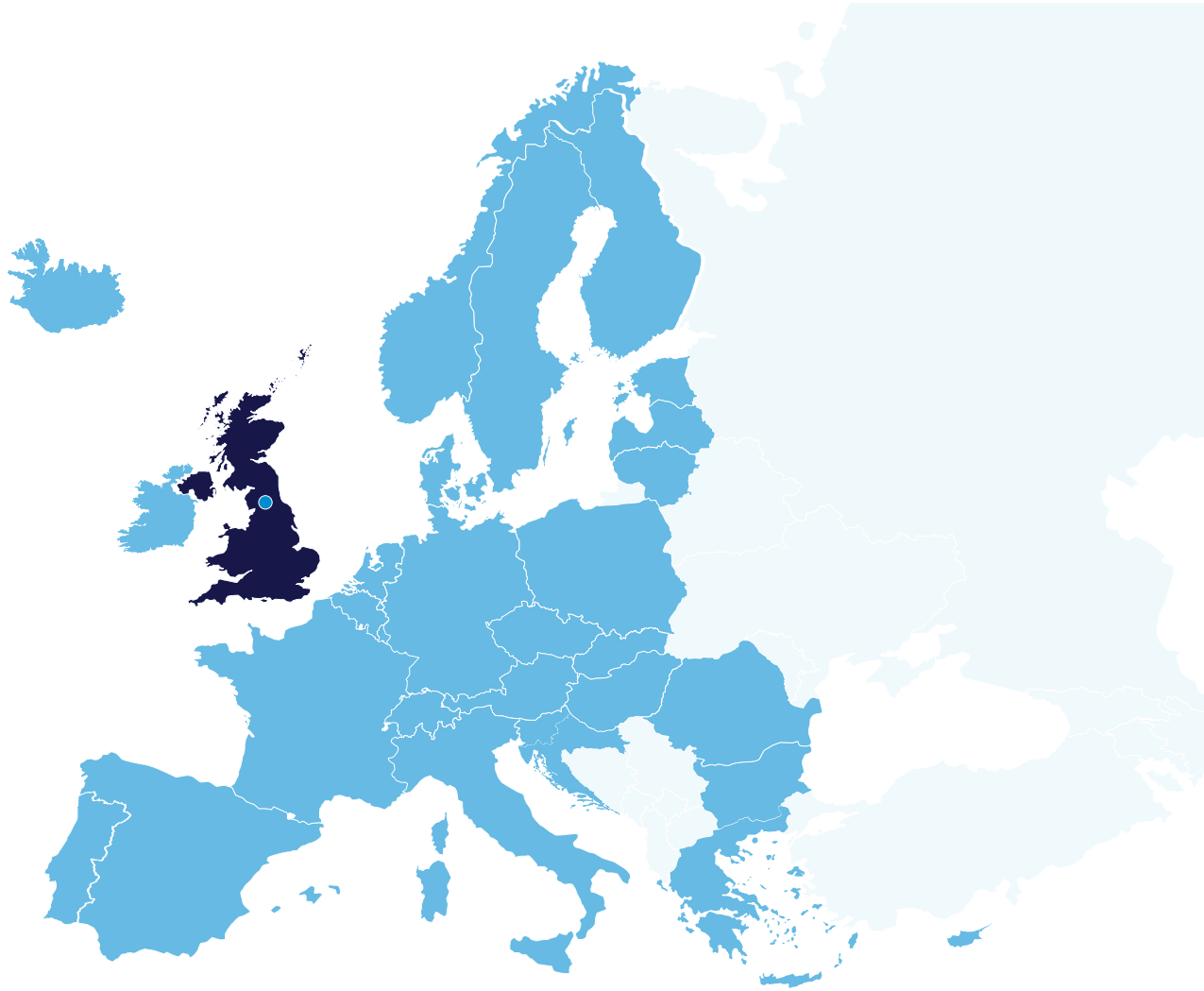
HAAS Alert

HAAS Alert’s participation in DFRS has emerged as a compelling proof point in the company’s efforts to accelerate adoption of its Safety Cloud® digital alerting platform among UK roadside assistance providers. When HAAS Alert engages prospective customers in the roadside assistance sector - whether breakdown response operators, recovery fleets, or highway patrol contractors - the core question these organisations ask is the same: how many drivers will actually receive the advance safety alerts triggered by their vehicles? The DFRS partnership directly and credibly answers that question. By aligning with a recognised European road safety data consortium, UK roadside assistance operators see Safety Cloud as an on-ramp into a broader roadway safety ecosystem designed to push hazard warnings to drivers across the UK and Europe.

The most significant advantage DFRS brings to HAAS Alert’s offering is accelerating the delivery of local hazard warnings into OEM vehicle dashboards. By HAAS Alert developing streaming data connectors into MDS, Safety Cloud alerts appear natively in the vehicles already on the road. For HAAS Alert customers, this is transformative. When a recovery technician deploys on the motorway at night, their Safety Cloud alert reaches more drivers via participating MDS-connected vehicles, dramatically expanding the addressable audience for every single alert activation.

This expanded alert reach has materially changed the value conversation with UK roadside assistance providers - and the results are visible. In February 2026, Green Flag, one of the UK’s largest road breakdown assistance networks, announced the fleet-wide adoption of Safety Cloud, becoming the first nationwide breakdown provider in the UK to deploy the technology. The decision was driven by Green Flag’s need to protect its technicians while working roadside to assist stranded motorists. Green Flag’s adoption of Safety Cloud reflects a broader trend HAAS Alert is seeing across the UK: when prospective customers understand that Safety Cloud alerts are reaching more drivers traveling nearby - accelerated by DFRS - the case for Safety Cloud adoption becomes substantially stronger. HAAS Alert’s DFRS membership has shortened the trust-building phase of the sales cycle, particularly with larger fleet operators who expect their technology vendors to be embedded in the regional safety ecosystem.

Ultimately, HAAS Alert’s relationship with DFRS reinforces the foundational promise it makes to every customer: that Safety Cloud will reach the most drivers possible, on the widest range of devices, with the fastest possible warning. UK roadside assistance providers choose HAAS Alert because their people are working in high-risk environments with very little margin for error, and they need confidence that every driver approaching their scene has the best possible chance of receiving an advance warning. DFRS helps HAAS Alert deliver on that promise at scale.





6. Looking Ahead & DFRS Impact Journey



Looking Ahead

DFRS is making roads safer for everyone and saving lives through innovative data utilization. We remain committed to building on this foundation to achieve even greater success in the years ahead. Our priorities include:

1

Optimizing Data Systems:

Enhance Data Accuracy and Reliability

2

Enhanced Data Sharing:

Implementing rigorous validation and governance protocols.

3

Broadening Participation:

Encouraging wider collaboration and investing in underserved regions.

4

Increase in volume of OEM Data:

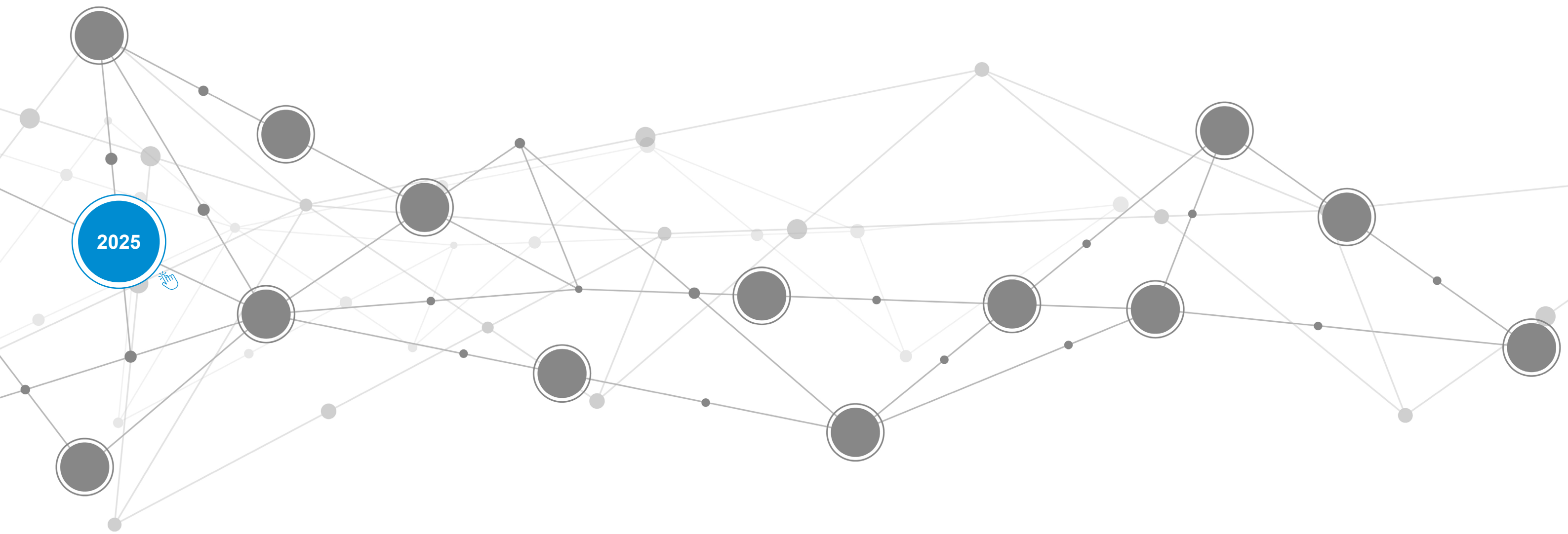
Expand coverage across Europe via our collaboration with Euro NCAP in integrating data sharing into vehicle safety assessments

Together, with continuous improvement and collective effort, we are shaping the future of road safety creating a safer, more connected Europe for all.

For more details, visit the [DFRS official site](#).

DFRS Impact Journey

The DFRS Impact Journey provides direct access to historical DFRS Impact Reports, highlighting the collaborations that have shaped our Impact across Europe.



 Click on the buttons to reveal interactive content



7. DFRS Members Testimonials



DFRS Members Testimonials

“ DFRS exemplifies the power of collaboration. It brings together the expertise of road operators, public authorities, car manufacturers and private companies in a common mission: to make our roads safer.

POST Luxembourg is honoured to play a central role in advancing road safety initiatives across Europe.

Our commitment to public welfare, innovation and technology has led us to build and operate the critical Big Data and Analytics platform for DFRS, in order to leverage data-driven insights for a safer road future.

Indeed, we provide the technological backbone that supports the convergence of data from multiple sources and produces relevant traffic information, enabling the consortium to harness the potential of Big Data analytics, and empowering experts from various sectors to gain invaluable insights that pave the way for effective road safety strategies.

Our platform acts as a hub for the exchange of pioneering ideas, algorithms and transformative insights, fostering a dynamic community committed to revolutionising road safety.

Through innovative technologies, collaborative spirit and cooperation, we are at the forefront of catalysing change and improving road safety. ”

- POST Luxembourg (DEEP)

“ The distribution of safety-critical alerts through DFRS has enabled our business to accelerate adoption of our connected safety solutions with roadside assistance providers throughout the United Kingdom. Broken down motorists are now safer throughout the UK thanks to DFRS. Membership in DFRS has allowed HAAS Alert to establish new and deepen existing relationships with National Road Authorities and vehicle OEMs. As an active participant in DFRS, we are able to demonstrate our technical and safety expertise and build business trust with other ecosystem members. ”

- HAAS Alert

“ At HERE Technologies, we see DFRS as a key enabler for the next generation of connected road safety services. The collaboration between DFRS and Euro NCAP has elevated real-time road hazard information from a voluntary capability to a business-relevant requirement, creating strong incentives for automakers and ecosystem partners to participate in trusted data-sharing initiatives.

The successful integration of DFRS with the MDS demonstrates that secure, interoperable, and scalable data exchange can be achieved across industry stakeholders. This provides a strong foundation for the efficient sharing of safety-related information and supports the development of connected services that improve situational awareness on the road.

By bringing together vehicle-generated data, public authority information, and service-provider capabilities, DFRS helps create tangible value for drivers, OEMs, road operators, and the wider mobility ecosystem. We believe DFRS is playing an important role in accelerating public-private collaboration and advancing the shared goal of safer roads across Europe. ”

- HERE Technologies

“ At Trafikverket we strongly encourage collaboration between public and private stakeholders in order to support drivers on our roads. DFRS is an excellent example of such collaboration that can play an important role for safer roads across Europe. Road Authorities, Service Providers and Vehicle Manufacturers are all needed to get the whole ecosystem working efficient. In DFRS we can have fruitful dialogues on how to collaborate and what kind of stakeholder that are best suited to take each role in the ecosystem.

Vehicle generated data and also other kind of data created by private stakeholders play an increasingly important role for traffic management in order to build best possible operational picture of the current traffic situation including safety related events on the roads. In DFRS we can get access to vehicle generated data and step by step improve the foundation for traffic management and the quality of the safety related traffic information we provide to external stakeholders. We can also learn from each other how to use the data and how to benefit from the data. ”

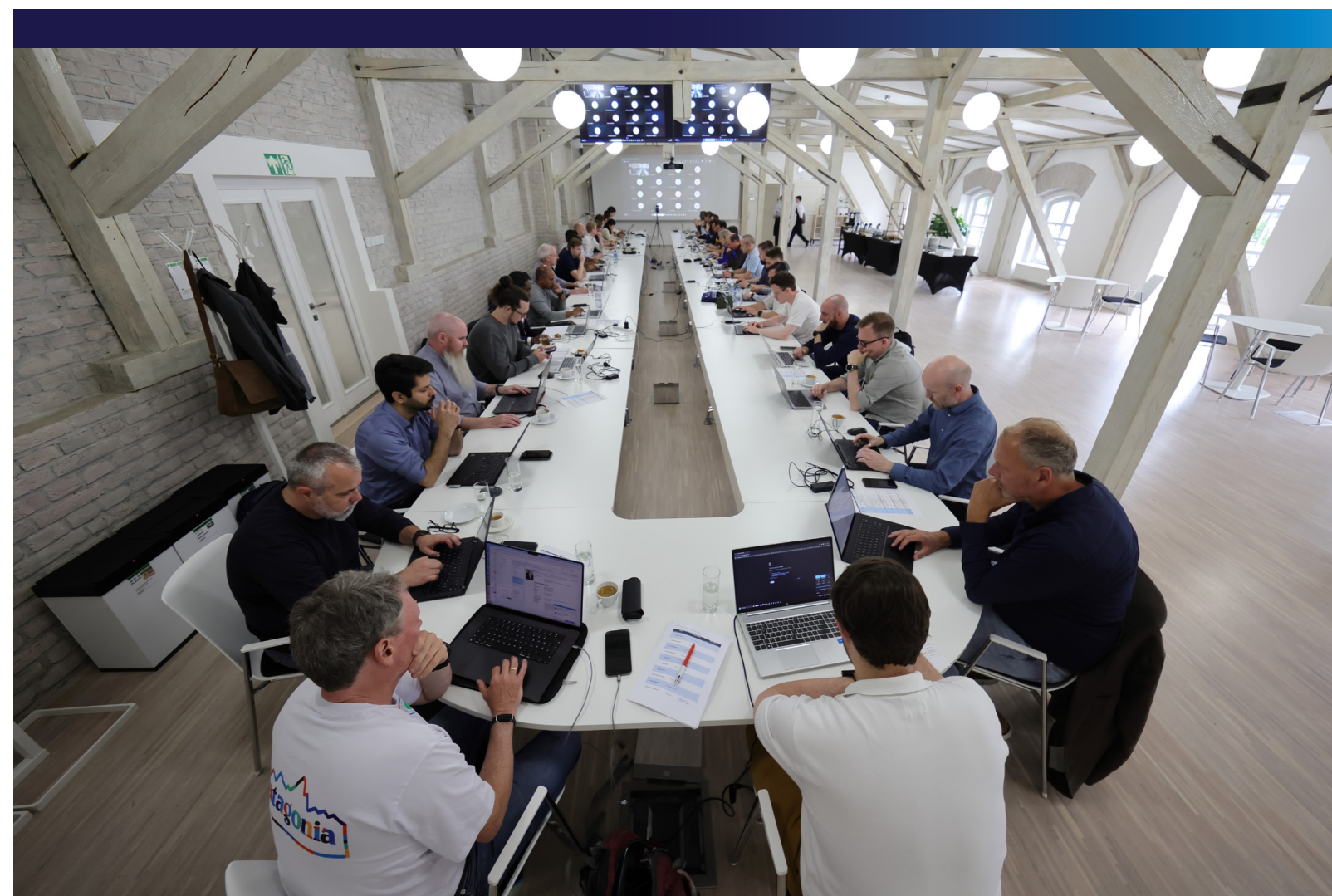
- Trafikverket/Swedish Transport Administration

“ DFRS impressively demonstrates, how collaboration in the age of software- and data-driven approaches and artificial intelligence should be done. What started with a core group of actors, willing to put agility, speed, openness and the absolute will to cooperate on top of their agenda, became a real snowball: just see the membership growth DFRS experienced since its start. And all of that without any public funding! ”

- BMW Group

“ Pioneering the integration of DFRS services into the Euro NCAP framework marks a major milestone for connected safety. By partnering closely with BMW to validate the Local Hazard Warning procedure, we proved that cross-brand data exchange is not just theoretically viable. It delivers measurable, real-world safety benefits at scale. We are proud to be the first Euro NCAP-compliant service provider helping OEMs turn shared data into life-saving vehicle intelligence. ”

- Bosch





- Skoda, Boleslav, Czech Republic