

MERIDIAN Milestone N°12

“MS1.05.2 Evaluation Workshop”

Document Information

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Abstract

This report summarises the main topics discussed during the online Evaluation Workshop held on 30 June 2026, focusing on the projects presented and their related evaluation activities.

Attendance list

Attendee	Country	Representative for
Veronika Salmhofer	AT	AustriaTech
Max Panczyk	AT	AustriaTech
Lars Akkermans	BE	Agentschap Wegen en Verkeer (AWV)
Gwynne van Kaauwen	BE	Agentschap Wegen en Verkeer (AWV)
Rybin Clara	BE	Agentschap Wegen en Verkeer (AWV)
Luise Lösche	DE	Autobahn
Matti Strohschein	DE	Autobahn
Björn Siebert	DE	Autobahn
Özgür Öztürk	DE	Autobahn
Marc Koch	DE	Ministry of Transport Baden-Württemberg
Munya Mutyora	IE	Ireland National Roads Authority
Ross Foley	IE	Ireland National Roads Authority
Alice Foley	IE	Ireland National Roads Authority
David Laoide-Kemp	IE	Ireland National Roads Authority
Mais Sawaf	IE	Ireland National Roads Authority
Paolo Lunardi	IT	Consorzio ZAI
Simone Pacciardi	IT	Port of La Spezia
Daniele Mocchi	IT	Port of La Spezia
Alessandro Barisone	IT	Port of La Spezia
Andrea Minardi	IT	Port of Ravenna
Bruno Fedi	IT	Port of Ravenna
Alberto Cozzi	IT	Port of Ravenna
Anna Esposito	IT	Port of Ravenna
Stefano Bevilacqua	IT	Port of Trieste
Andrea Steccanella	IT	Porti Alto Tirreno, Port of Livorno
Fabian Telch	IT	Province of Bolzano
Francesco Varone	IT	SINA S.p.A.
Paola Mainardi	IT	SINA S.p.A.

Rachele Bianchi	IT	SINA S.p.A.
Luca Pasino Franz Studer	IT	SINA S.p.A. (Politecnico of Milan)
Giovanna Marchionni	IT	SINA S.p.A. (Politecnico of Milan)
Beatrice Bianchini	IT	SINA S.p.A. (Politecnico of Milan)
Jānis Putniņš	LV	Latvian State Roads
Līga Mekša	LV	Latvian State Roads
Peter van Dop	NL	RWS

Report of the meeting

Welcome and overview

Luca Studer opened the session by outlining the purpose of the MERIDIAN final evaluation workshop, stressing the need to keep a tight schedule. He highlighted that although the number of evaluated projects had decreased compared to initial expectations, the remaining studies still represent meaningful implementation efforts.

He emphasised that the core objective of the session was to extract quantitative results, repeatedly encouraging speakers to prioritise measurable outcomes rather than descriptive narratives. He also clarified that the session should be seen as part of an ongoing evaluation process and not as a final judgement.

T2.04 – Latvian State Roads: “Smart solutions for transport data management”

Jānis Putniņš presented a project focused on modernising Latvia’s traffic counting system through the deployment of new sensors, integration of pedestrian and cyclist counters, and real-time data access via a national platform. He clarified that the project’s impact is mainly indirect: the improved data infrastructure supports better planning and decision-making, rather than producing immediate and directly measurable reductions in congestion or emissions. For this reason, the evaluation focused primarily on data quality, coverage, reliability and accessibility.

The main results highlighted were:

- A near doubling of monitored locations.
- Significant improvements in data completeness and reliability.
- Broader data coverage including vulnerable road users.
- Continuous real-time data availability, including data for pedestrians and cyclists, which has already supported safety-related planning decisions such as the development of a pedestrian tunnel.

During the discussion, Luca challenged the absence of measurable safety impacts, asking whether improvements were quantitative or qualitative. Jānis explained that safety gains (e.g., the decision to build a pedestrian tunnel) were indirect and difficult to quantify, relying mainly on expected reductions in complaints and perceived risks.

A question from Lars Akkermans shifted the discussion towards private sector engagement, particularly interactions with platforms such as Waze or Google Maps. Jānis confirmed that collaboration remained mostly public-sector oriented, though some data (e.g., roadworks) was already shared with external platforms. The exchange developed into a broader reflection on feedback loops and data reuse, with participants acknowledging the complexity of assessing how third parties process shared data.

T2.07 – RWS: “DTP (Data Turbo Pipeline) – digital incident management”

Peter Van Dop presented the Data Turbo Pipeline, a system aimed at improving incident management through digitalisation, automation and machine learning. The project digitised previously manual processes, including incident logging and communication, enabling real-time updates, automated reports and faster coordination among operational actors.

Key results included:

- A 22% improvement in response times (later refined to 11% due to data accuracy adjustments).
- Operational gains such as 2 minutes saved per report across thousands of reports annually.
- A 10% improvement due to predictive positioning of inspectors.
- Around 30,000 automated reports generated annually, contributing to more consistent data quality and reducing the risk of delays or omissions in manual reporting.

Luca questioned the baseline comparison methodology; particularly how pre-project response times were measured. Dop acknowledged that older data was less reliable due to manual logging, but still usable for comparison.

Further probing led to more concrete figures:

- 280,000 vehicle-hours saved.
- €4.3 million in time savings.
- 4,500 additional hours of secured incident sites annually.

This exchange reinforced Luca’s emphasis on extracting quantitative evidence, with him explicitly stating that such numbers are essential for demonstrating project value.

T3.01 – Flemish Government Agency for Roads and Traffic: “Mobilidata”

Lars Akkermans presented a large-scale Mobility Data Programme covering the period 2019–2025 and integrating public and private actors to develop data-driven mobility services. The programme addressed several use-case groups, including traffic information sharing, risk reduction warnings, intelligent traffic light control, navigation support and public services, with the overall aim of improving mobility outcomes for road users.

Key insights included:

- High system reliability (around 98–99% uptime).
- Demonstrated behavioural change when users received explicit warnings, while softer information (e.g. traffic light data) had weaker impact.
- Strong dependence of societal benefits on user adoption rates.
- A multi-layered evaluation framework combining six dimensions: technical performance, data quality, user acceptance, behavioural change, societal impact and business models.

The discussion with Luca focused heavily on economic impact. Lars acknowledged that monetary estimates were partly theoretical but still valuable, citing potential societal benefits in the range of millions (and, for large-scale adoption, even billions) of euros annually.

The exchange highlighted a shared tension between scientific caution and the need for economic quantification, especially for reporting to funding authorities.

Lars also underlined that behavioural effects depended strongly on the type of service and the design of the human-machine interface. Warning-based services triggered clearer behavioural adaptation, while purely informational functions, such as traffic light countdowns, tended to have weaker effects because they required more attention from users. He also described how comparisons between public data and private platforms such as Waze helped identify data quality improvements, especially regarding the timely removal of outdated warnings.

T3.02 – Autobahn GmbH: “C-ITS German-wide – Phase II: C-ITS road works warning roll-out”

Özgür Öztürk presented a Germany-wide deployment of connected roadworks warning systems based on C-ITS technology. The system used roadside units and communication protocols to send real-time warnings to vehicles, combining real-time infrastructure-to-vehicle data exchange with back-end integration.

The evaluation focused on vehicle behaviour near roadworks, using probe vehicle data such as speed, acceleration and steering behaviour. Data was collected at high frequency, allowing detailed analysis of how equipped vehicles behaved when approaching roadworks compared with non-equipped vehicles.

Preliminary results showed:

- Observable speed reduction before roadworks, starting up to 400 metres in advance.
- Behavioural adaptation (deceleration and acceleration patterns).
- Potential improvements in safety through earlier warnings.

However, challenges were emphasised:

- Limited penetration of connected vehicles.
- Difficulty isolating the impact of C-ITS from other variables.

Luca again stressed the importance of deriving numerical outputs, even if based on assumptions, to strengthen evaluation credibility.

T4.03 – Autobahn GmbH: “Strategic Corridor Management Germany”

Matti Strohschein presented a Strategic Corridor Management system designed to coordinate traffic management centres across long-distance corridors through shared strategies and voting mechanisms. The system monitors travel times and recommends route strategies when congestion thresholds are exceeded.

The project introduced:

- Software monitoring of travel times across routes.
- A coordinated decision-making process for activating rerouting strategies.
- However, evaluation progress was limited due to system restructuring and integration challenges.
- A voting system among traffic management centres, replacing complex phone-based coordination and improving transparency in the activation of route advice.

Luca asked whether monetary evaluation had been performed. Munya confirmed it had not, noting the complexity of such calculations, but acknowledged its importance.

He clarified that the sharp increase in detected incidents should not be interpreted as a deterioration in safety, but as the result of improved monitoring capabilities. He also underlined the operational benefits of real-time information, including faster intervention, improved network resilience, reduced delays and more stable travel speeds supported by variable message signs.

T5.04 – Port of Ravenna Authority: “ITS Tools at the Ravenna Port”

Andrea Minardi presented an ITS project for the Port of Ravenna aimed at improving logistics and truck circulation through virtual gates and a booking system. The objective is to reduce bottlenecks and emissions while improving coordination between trucks and terminals.

At the time of presentation:

- Only ex-ante evaluation had been completed.
- KPIs included traffic flow variance and pollutant emissions.
- The ex-ante estimates relied on assumptions regarding truck movement patterns, fuel consumption and standardised vehicle characteristics, which will need to be validated once post-deployment data becomes available.

Data collection for ex-post evaluation had just started, with results expected in the coming months. Luca pressed for earlier availability of numerical results, highlighting the urgency of reporting timelines.

T5.06 – Port Network Authority of the Eastern Adriatic Sea (Port of Trieste): “Optimization of transport operations in the Port of Trieste”

Alberto Cozzi described a module enabling pre-arrival notification and slot booking for trucks entering the port. He emphasised that digitalisation in port operations can improve efficiency and effectively increase infrastructure capacity by reducing waiting times, allowing more vehicles or trains to be handled without physical expansion.

Evaluation challenges included:

- External factors influencing congestion (roadworks, ship arrivals, seasonal fluctuations).
- Difficulty isolating the project’s impact.
- The need to interpret before-and-after comparisons carefully, particularly when using gate entry and exit times or congestion levels as performance indicators.

The expected outcome is improved fluidity of truck entry, but results were still under analysis. Luca underlined the need to align timelines with project reporting deadlines.

T5.05 – Ports of La Spezia and Marina di Carrara: “Appointment system at the Port of La Spezia”

Simone Pacciardi and Luca Studer presented a combined appointment and tracking system for the Port of La Spezia, using real-time status information, document readiness checks and expected time of arrival predictions to optimise truck flows into the port.

Quantitative findings included:

- Reduction of delay from ~31 minutes to ~4 minutes.
- Average saving of 26 minutes per truck (~86% reduction).
- Estimated saving of €27 per truck.

The discussion extended beyond time savings. Alberto Cozzi highlighted an important indirect benefit: increased capacity without infrastructure expansion, as faster processing allows more trucks to be handled.

Simone reinforced this point, explaining that efficiency gains mainly affect waiting areas and dynamic capacity.

Simone also explained that advance information and pre-checks reduce bottlenecks at port gates, helping drivers plan arrivals more efficiently and smoothing congestion peaks. By shortening occupancy times in waiting areas, the system increases dynamic capacity without requiring additional physical infrastructure.

Final Discussion and Conclusions

Björn Siebert summarised that, although some evaluations were incomplete, the workshop had already demonstrated clear positive impacts across projects, both for road users and logistics systems. He encouraged participants to finalise their evaluations and prepare the required outputs for the concluding project phase. Luca concluded by reiterating key messages:

- Quantitative evidence is essential for demonstrating value.
- Even estimates are preferable to purely qualitative claims.
- A consolidated final report will synthesise all findings for stakeholders, including the European Commission.
- Participants must accelerate completion of evaluations to meet upcoming milestones (notably the Cork meeting).

The session closed with mutual acknowledgement of progress and recognition of the complexity of evaluating diverse, multi-modal ITS projects.

