

MERIDIAN Newsletter February 2023

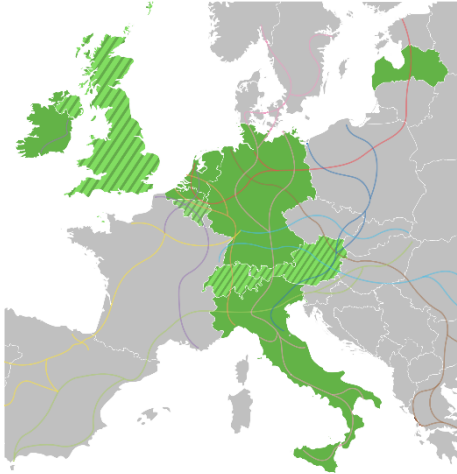
Welcome to the first Meridian Newsletter. In this newsletter you will find:

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If you would like to receive the Meridian Newsletter in the future, please mail to: peter.van.dop@rws.nl or bastiaan.kocken@rws.nl.

A short introduction to the Meridian Project



The MERIDIAN project will foster digitalisation of the mobility system focussing mainly on the CEF Core Network Corridors Scandinavian-Mediterranean and North Sea-Baltic. This will be achieved by implementing digital systems and services along the busiest European freight corridors. The project will further target expansion of digital infrastructure, roll-out of C-ITS in central Europe, implementation of ITS for bottlenecks on open road and tunnels, digital corridor management and Multimodal Services. Its implementations will support common objectives to increase traffic safety, reduce

congestion and environmental pollution whilst supporting the objectives of COP26 along these important freight corridors in Europe. The purpose of the project is to provide the covered TEN-T with technology and systems in accordance with the European Union transport policy on Intelligent Transport Systems (ITS). The project is congruent with the EU's ITS Action Plan and the ITS Directive and supports the development and implementation of interoperable, cross-border and continuous services that improve road safety, streamline the use of the TEN-T road network, improve multimodal use of the corridor, and reduce environmental impact and GHG emissions. For this purpose, 24 ministries, road authorities, road operators, urban and port authorities, a federal highway research institute and hub operators from Belgium, Germany, Ireland, Italy, Latvia and the Netherlands teamed up to implement 36 deployments projects on the TEN-T core and comprehensive network for more than 250 Mio. European Citizens. Through MERIDIAN much more relevant information will be provided to national access points. MERIDIAN will contribute significantly to know-how development and actively engage in the work aiming at European harmonisation and knowledge building.

Highlights of projects

IDEA improves information on road closures

Information about road closures has been available as open data for years. Service providers can use this data in their route advice, but that is still not done enough – simply because the data is not always up-to-date. To boost the quality of the information, NDW ([National Road Traffic Data Portal](#)) and its partners have therefore started IDEA (Intelligent Data Exchange Alliance). In this project, floating car data and self-learning algorithms are used to check information about road closures.

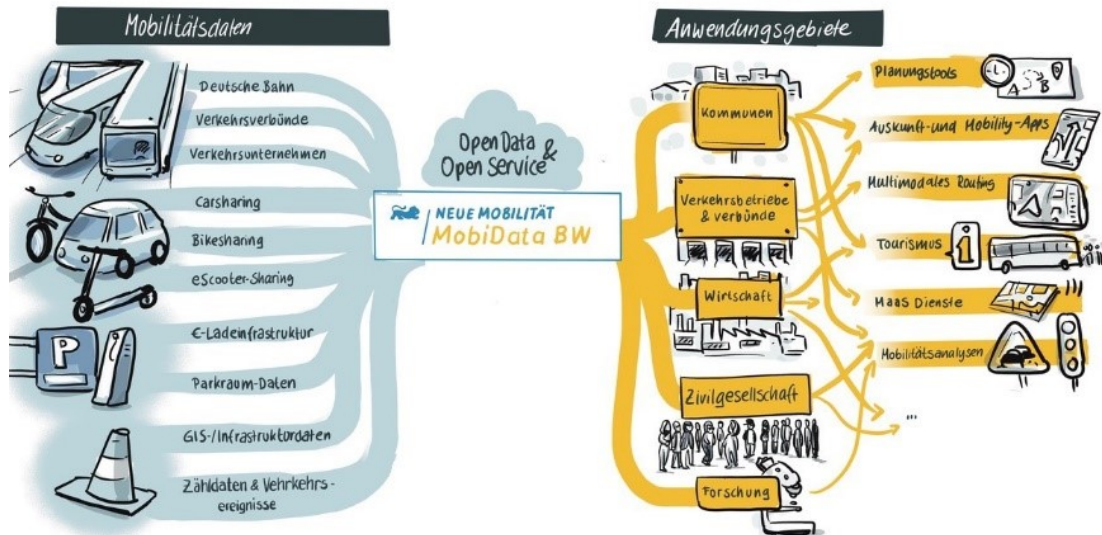


Figure 1 Timeslot information about Road closures to do maintenance, is needed for adequate route advise services.

Road authorities use various tools to plan and coordinate road works. This prevents a lot of suffering: the tuning limits the chance of 'driving from one broken up road to another' to a minimum. An additional advantage is that the (basic) data about road works are also made available as open data via the planning tools. Service providers can use that data for their navigation services, so that route advice guides road users neatly around the roadworks at that moment.

For more information (in Dutch) go to: https://www.nm-magazine.nl/artikelen/idea-verbetert-informatie-over-wegafsluitingen/?utm_source=newsletter&utm_medium=email&utm_campaign=nm_magazine_2022_2_interview_vlaams_minister_lydia_peeters_strategische_modellen_en_meer&utm_term=2022-06-29

MobiData BW® – Mobility Data and Services for Baden-Wuerttemberg



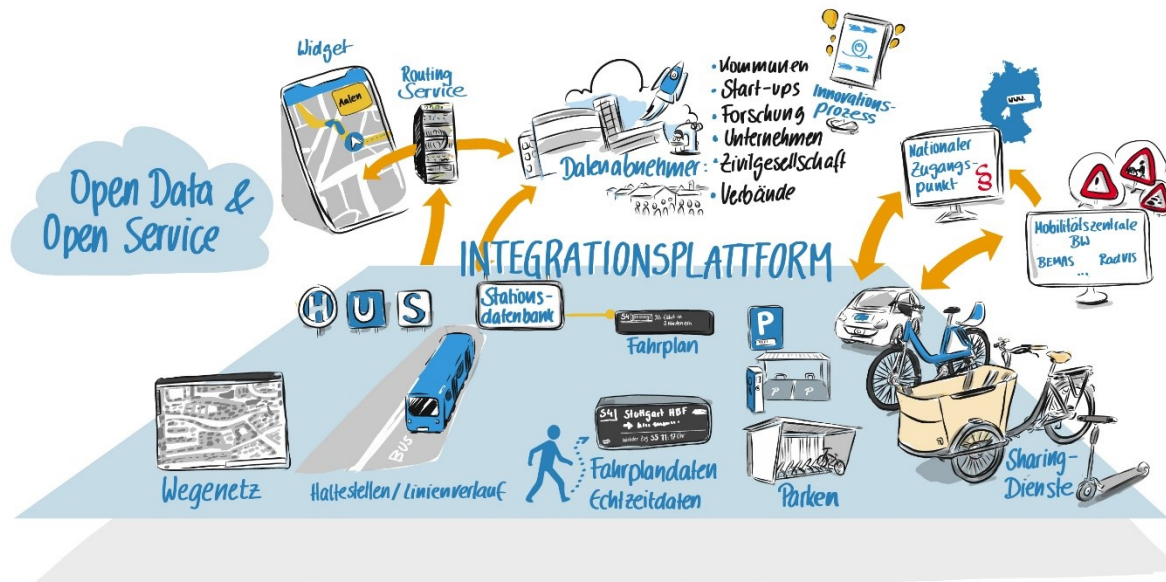
MobiData BW® represents the central and state-wide mobility data platform of Baden-Wuerttemberg, which is developed and operated by the state-owned NVBW - Nahverkehrsgesellschaft Baden-Württemberg GmbH. MobiData BW® provides free and non-discriminatory access to mobility data across all transport modes for the public. It is the aim of MobiData BW® to stimulate a digital innovation ecosystem and to provide a basis for the development of mobility services that promote more convenient and sustainable mobility options for everyone. Through the combination of data and services across different transport modes, mobility behaviors can be changed towards a more sustainable, reliable, multimodal and convenient mobility of the future.

Two underlying principles data standardization and open data licensing, are being served. By bundling data from different data generators, MobiData BW® transforms proprietary APIs and different data formats into approved standards (such as GBFS, GTFS, DATEX II standards, TRIAS-API), resulting in a grand versatility to access data. Moreover, the platform homogenizes different data licenses what further lowers the barriers to use mobility data.

MobiData BW® is designed as a platform serving an open innovation process with data generators and re-users from public authorities, universities, start-ups, industry partners, mobility providers, public transport operators, and citizens. Already available data on the platform serve as a starting point. In the context of the on-going development, further data generators and services will be added.

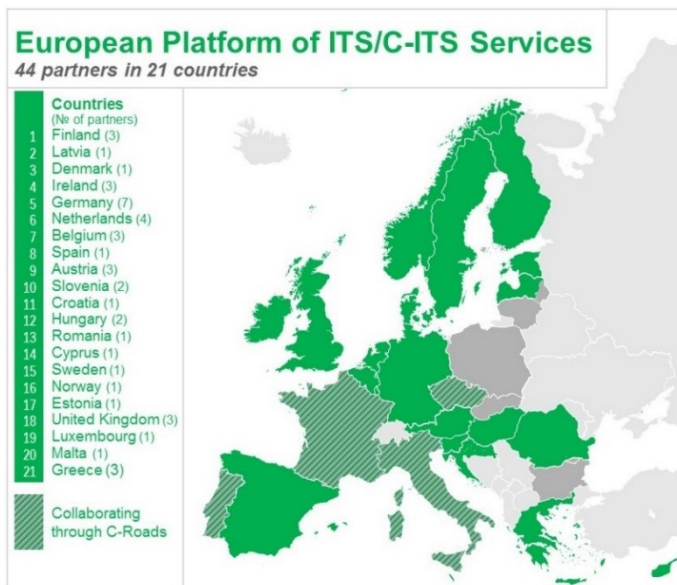
Data is bundled and harmonized on the state-level of Baden-Wuerttemberg and is connected to the German national access point for mobility data (NAP), called

mobilithek. The infrastructure of MobiData BW therefore plays a significant role within the federal data sharing system in Germany, especially by supporting local authorities and transport companies fulfilling data sharing obligations and by enabling regional partners to start leveraging existing data assets through sharing it with the public.



For more information please visit: <https://mobidata-bw.de>

Meridian has signed a Letter of Intent for the support of EPICS



European Platform on ITS and C-ITS Services (EPICS) has submitted last January a proposal under the EC CEF2 ITS Call. EPICS is a platform in which road operators and authorities work together on the provision of interoperable, seamless, and continuous ITS and C-ITS services in Europe for improving safety, efficiency and environmental impact of the European mobility system. This platform will consist of 44 partners from 21 countries.

Meridian has signed a LoI for the support of EPICS. Meridian is convinced that EPICS will contribute to the further development of ITS and C-ITS and therefore supports the application of this European project.

After approval of the EC the EPICS project will start in October 2023.

Mobilidata

Two milestones of Task T3.01 Mobilidata within the work package WP3 C-ITS were reached. Milestone MS038 is completed. The contract for the design, the development and the deployment of the core of the Mobilidata programme was signed by the Flemish Minister for Mobility and Public Works in November 2021.

In addition, milestone MS039 is completed. The developments for the Mobilidata Interchange (MI), the Public Information Provider (PIP) and the historical database were completed and delivered in June 2022.

Dynamic Traffic Management and Peak Hour Lanes

Milestone MS053 of task T4.01 'Dynamic Traffic Management and Rush Hour Lanes' of the Flemish Agency for Roads and Traffic is completed. The site visits on the E17 highway near the city of Kortrijk were completed in December 2021. On the E17, part of the TEN-T North Atlantic-Mediterranean corridor, hard shoulder running will be implemented for the dynamic use of hard shoulders as an extra driving lane with the aim to increase road capacity during peak hours of high traffic demand. Road safety will also be increased by this ITS measure.

Realisation of public address safety speakers in the Craeybeckx tunnel

Part of the task T4.02 Tunnel Safety Systems of the Flemish Agency for Roads and Traffic is completed. The works planned for the Craeybeckx tunnel speakers were finalized in 2022. The tunnel public address system was installed, passed system tests and integration tests with the tunnel management system (SCADA - Supervisory Control and Data Acquisition) of the technical control centre of the Flemish Traffic Management Centre (Vlaams Verkeerscentrum) after which they were put into service (deliverable D26 "D4.02 Putting into service report").

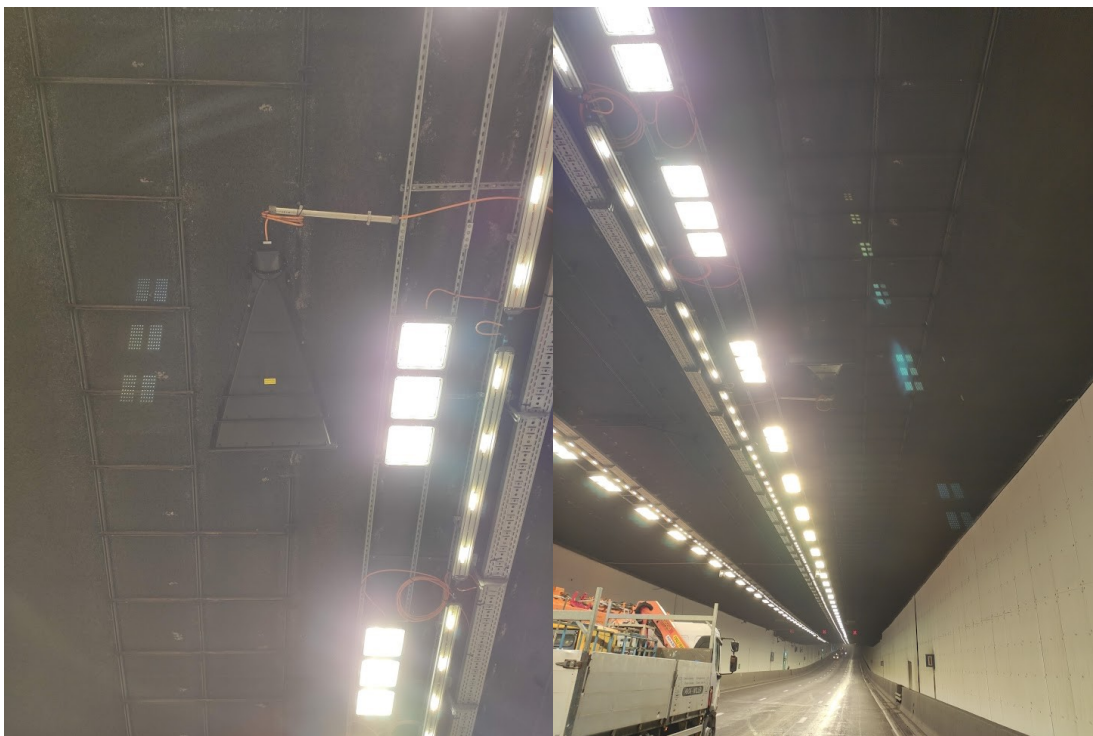


Photo © Agentschap Wegen en Verkeer,

Such public address speakers are required to support the operator when severe events (accident, fire, etc.) occur. They allow communication between the operator and the road user. It makes it possible to give clear instructions when needed: e.g. encourage road users to: leave their vehicle, move to the escape exits, leaving the tunnel with their vehicle towards the front or the back depending on the particular emergency situation.

The speakers are placed at a systematic interval and the configuration is done taking into account the Doppler effect, reverberations, etc. in order to create a high quality sound.

Realisation of a tunnel closure system at the Tijsmans tunnel

To increase the tunnel safety in the Tijsmans tunnel automated barriers are installed to create a physical barrier for road users to enter the tunnel in the event of a serious incident in the tunnel (accident, fire, etc.). In addition, dynamic traffic management systems are added in the last kilometres before the barrier to enable safe operation of the barriers and to reduce the severity of accidents by mitigating speed.

The barriers are integrated in IRIS, the SCADA application of the Flemish Traffic Management Center, and the resulting data of the dynamic signs are fed into the lane signalling (RSS) and the dynamic variable messages signs (VMS). This data are also made available as open data feeds in XML format.



Photo: © Agentschap Wegen en Verkeer, photography: Kris Van De Sande

Publication of standard BIM documents

Task T2.01 'Building Information Management (BIM)' of the work package WP2 'Digital Infrastructure and Digital Twin' was completed in December 2022. This was amongst others marked by the publication of the BIM protocol, the BIM

execution plan (see [link, in Dutch](#)) and starter package in November 2022 (see [link](#)):

- This starter package for contractors bundles the main practical aspects of the BIM process in a BIM assignment, more specifically the preparation and delivery of OTL-compliant data.
- The BIM protocol forms the basis for every BIM project. The general vision, guidelines and agreements in this BIM protocol are generally valid for all BIM assignments. Thanks to this basis, we ensure the necessary uniformity in BIM-oriented working across the projects.
- The project-specific implementation and practical agreements per project are further detailed in the associated BIM implementation plan that is drawn up for each project.

The new production release of the OTL data standard has been published on <https://wegenverkeer.data.vlaanderen.be/>.

Milestone MS013 is completed: the link with the documents was distributed to the user community in November 2022. Additionally, milestone MS014 is completed: the DAVIE portal for contractors was officially launched. DAVIE is an application for **D**ata **A**cceptance, **V**alidation and **I**nformation **E**xtraction. The data portal DAVIE ensures proper reception of the data and flow, conversion to a readable representation of the data in a digital twin database and application, which enables further data management and updates. We offer end users the opportunity to upload data, have it validated automatically against the OTL data standard, then have the content verified and flow to the digital twin database and application.

The OTL Subset Tool (OST) is publicly available for creating custom subsets for a project. The tool allows to specify and define which OTL-compliant BIM data must be supplied to suit a project. The tool helps the road authority and contractors to define the information delivery specification specifically tailored to their project.

Webinars explaining the operation and tools and helping contractors use them can be consulted [here](#) and are explained at various internal information sessions and external events.

BIM4Infra 2022 event on November 22nd, 2022

One of the ways to promote the usage of the Building Infrastructure Management (BIM) tools developed under Task T2.01 is the [BIM4Infra 2022](#) event organised in November 2022 by the Flemish Ministry of Mobility and Public Works for all stakeholders involved in the infrastructure sector.

With 15 parallel sessions, there was something for everyone. Under the titles "Design BIM", "Build BIM" and "Shape BIM" both technical explanations and practical examples were discussed. Both from the point of view of the government and from the point of view of engineering firms and contractors. No one-way traffic, but a healthy mix of all parties involved.

PROGRAMMA BIM4Infra 22/11/2022			
8u30-9u30	Welkomstcoffee & Netwerk-tuin		
9u30-9u45	Kathy Vandermeerschout - Administrateur-Generaal AWV		
9u45-10u15	Notasha Blommaert - Portfolio Manager Data & Innovatie (AWV)		
	DESIGN BIM!	BUILD BIM!	SHAPE BIM!
10u25-11u10	SESSIE 1 Van CAD naar BIM in infrastructurele projecten. Kevin De Masschot (KSB) Een blik op het veranderingsproces binnen S&E en hun projecten, zoals oa. de Roijersdijk de uitdagingen, de valkuilen, de tegengagen en de successen.	SESSIE 2 De weg naar een Digital Twin. Hans Rottier (Port of Antwerp-Bruges) Het gebruik en toepassen van BIM als bouwsteen voor de Digital Twin bij Port of Antwerp-Bruges.	SESSIE 3 Beter projectondersteuning met het praktische starterspakket. Arthur Tilans & Bert Von Overmeer (AWV) Het starterspakket wijst je de weg in alle beschikbare BIM en OTL informatie. Een praktische uitleg rond deze nieuwe tool.
11u10-11u40	Koffiepauze & Netwerk-tuin		
11u40-12u25	SESSIE 4 Het recept voor een gestructureerd project – Haute CursBIM. Vicky Vermeirbergen & Bert Van den Zegel (Swarco Belgium)	SESSIE 5 - OTL-conforme data beheren met Python. - OTL-conforme data aanleveren voor AKELA-aanmelders. David Woutrick & Ruben Dewitte (AWV)	SESSIE 6 Hernieuwde BIM-documenten, klaar voor gebruik! Timo Nutans & Vincenc Woutrick (AWV)
12u25-13u15	SESSIE 7 BIM Infra is een verbeterde versie van Civil3D. Filip Deneij (Stadsbureau Deneij) & Wim De Wiltzer (GeoIT)	SESSIE 8 BIM gericht werken voor multidisciplinaire projecten (Stadsbader Contractors). Chris Beckers & Roel Lohmeijer (Stadsbader Contractors)	SESSIE 9 Werken met het Postenmapping Artefact en het Geometrie Artefact. Roel Vontschem & Ruben Dewitte (AWV)
13u15-14u00	Er is bij stadsbureaus veel afgaan over de complexiteit en tijdsbesteding van BIM infra. Maar in de wegvoerder Autobahn Civil 3D software zijn alle ingrediënten aanwezig om dit gestructureerd aan te pakken, alleen is dit voor velen nog onbekend terrein. Het de Autobahn Civil 3D AGS-On 'Share It Link' standaardtekst OTL "wordt er gewerkt met de laatste beschikbare OTL template en met de recentste S&E2D postenmapping in Civil 3D.	Digitalisatie en BIM gericht werken binnen Stadsbader Contractors. In deze presentatie zullen wij ingaan op de praktische voorbeelden van enkele BIM-toepassingen in uitvoering aan de hand van enkele voorbeelden op onze multidisciplinaire projecten.	In deze sessie tonen we hoe het postenmapping artefact gebruikt kan worden om meetstaten af te leiden uit OTL-conforme datasets. Daarnaast gaan we in op een aantal nieuwheden in de SQLite en de uitbreiding rond S&E2D en S&E3D. In het tweede deel bekijken we welke tools er beschikbaar zijn om een link te leggen tussen de OTL, de steekkaarten en het legendebokaal.
14u00-14u30	Koffiepauze & Netwerk-tuin		
14u30-15u15	SESSIE 10 Overharde weg naar BIM. Philip Sayge, Michael Joly, Raf Nelissen & Monika Volkering (Tractebel)	SESSIE 11 De weg naar een succesvolle BIM implementatie door aanpak van Swarco. Swarco Project, Eli Vinje, Torck Kramis & Conny Asselman (Swarco Belgium)	SESSIE 12 De Vlaamse Waterweg zet in op BIM. Jonas Polij & Vincenc Woutrick (De Vlaamse Waterweg)
15u15-16u10	SESSIE 13 Ni, de weg naar efficiëntere en intelligentere werkprocessen. André Trincão Fernandes & Edward Nouwé (Arcadis)	SESSIE 14 As-Bimmed by Willemens Infra & Het gebruik van het DAVIE dataportaal van AWV. Frank Christiaan Willemens Infra & Timo Nutans (AWV)	SESSIE 15 LOP? TOL? ... OTL! Jimmy Goozars (AWV)
16u20-16u50	BIM in de Oosterweelverbinding: grensoverleggend op veel gebieden. Luc Hellemans - CEO Lontis		
16u50-17u00	Slotwoord Notasha Blommaert - Portfolio Manager Data & Innovatie (AWV)		
17u00-19u00	Netwerkdink - Afsluitende receptie		

C-ITS road works warning roll out in October 2022

The event began with a welcome from the AUTOBAHN CEO Stephan Krenz. In his statement, Mr. Krenz addressed the obligation of the Autobahn to protect both road users and our own staff from the risk of accidents as far as possible, and promoted the system: "By establishing the construction site warning system, we want to send a signal to the market: the infrastructure for more road safety is available." In his speech that followed, Federal Transport Minister Volker Wissing emphasized how important digitization is for future road traffic: "Digitization is the booster for more progress, for new opportunities, for better, networked, automated mobility. We close security gaps that we can no longer close analogously." The C-ITS service is currently already available via direct WLAN communication in certain VW vehicle models. If a vehicle approaches a roadworks site, the driver is informed directly on the dashboard display before the roadworks even comes into view and can react accordingly – for example by changing lanes and reducing speed. Since the risk of serious rear-end collisions is particularly high on day-to-day construction sites, the construction site warning was selected as the C-ITS service, which Autobahn GmbH was the first to put into regular operation in Europe. The basics and technical components were developed and successfully tested on behalf of the Federal Ministry of Transport and the transport ministries of Austria and the Netherlands together with the BAST and industry.

How it works ? Please check the video: https://youtu.be/IePibWxs_8c

Project Management and Knowledge Building

Several knowledge building and knowledge exchange topics have already been kicked off: Digital Infrastructure, and Bottleneck & Digital Corridor Management, while others will soon start, such as C-ITS.

During the Q3 2022 steering committee in Catania the **Digital Infrastructure** knowledge building and exchange topic was addressed in interactive sessions, as well as the **Digital Corridor Management** topic. Both knowledge building topics were progressed in more depth at the Q4 2022 steering committee in München.

C-ITS demo, March 14th, 2023

On March 14th, 2023 at the end of the first day of the next Meridian steering committee meeting a demonstration will be held in Ghent of a few use cases of the Flemish Mobilidata C-ITS programme related to signalized intersections.

See you all in Ghent!

