

MERIDIAN Deliverable D6 – “D1.06 - Capitalisation 2 Report”

Document Information

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Abstract

This deliverable responds to the requirements of D1.06 – Capitalisation 2 Report as defined in the MERIDIAN Description of Action (DoA). It documents progress in transferring, embedding, and sustaining project results across the TEN-T network during the second reporting period. Partners advanced from planning to full implementation across multiple Member States, deploying physical infrastructure, digital systems, and cross-border cooperation mechanisms. Key achievements include Smart Road construction in Italy (~90% complete), GNSS/LiDAR data collection in Latvia, C-ITS rollout in Germany (1,200 trailers equipped), dynamic traffic management completion in Flanders, and ArbIS system expansion in Bavaria. Capitalisation activities confirm that project outputs are being operationalised, transferred to regional authorities, and aligned with broader European frameworks including NAPCORE and C-Roads.

1. Introduction and Context

The MERIDIAN project, co-funded under CEF2, is a large-scale implementation initiative aimed at transforming the TEN-T network through concrete infrastructure deployment, digital upgrades, and operational integration. This Capitalisation 2 Report (D1.06) fulfils the requirement set out in the DoA to document how project results are being transferred, embedded into operational practice, and sustained beyond the project lifetime. The reporting period demonstrates that MERIDIAN has advanced decisively from planning to execution, delivering measurable outcomes across multiple corridors and Member States.

2. Summary of Implementation Achievements

In Italy, ANAS has nearly completed the construction of the “Smart Road” backbone along the A19 corridor. Basic infrastructures for network and data transmission have been created and technologies installed along the entire stretch, including power supply lines, optical fibre networks, plinths for multifunctional stations, cameras, RSUs, switches, programmable logic controllers (PLCs), and Wi-Fi access points. Work progress stands at approximately 90% for the main sections. In parallel, ANAS has begun constructing a new technological building to house energy transformation and communication systems, with structural works underway and system installations planned for 2025.

In Latvia, MERIDIAN has significantly expanded the country’s digital data collection capabilities. Advanced GNSS, LiDAR, and 360-degree imaging equipment has been procured and deployed, enabling high-resolution mapping of TEN-T road sections. Data collection on all relevant TEN-T network sections has been completed using vehicles and equipment purchased under the project, producing detailed point clouds, automated asset recognition, and updated cartographic layers. Latvia has also begun constructing new traffic counting points and upgrading existing ones, and initiated deployment of bicycle and pedestrian counting infrastructure, expanding multimodal monitoring capacity.

In Germany, MERIDIAN has advanced the national rollout of C-ITS-enabled roadworks warning systems. By 2024, 1,200 roadworks warning trailers had been equipped with C-ITS stations, representing a major expansion of digital safety infrastructure. Germany has also implemented substantial upgrades to its Strategic Corridor Management (SCM) system, which now provides a real-time national traffic overview, travel-time comparisons, construction updates, and integrated dashboards already supporting operational traffic management across multiple corridors.

Flanders has completed the deployment of dynamic traffic management infrastructure at three strategic locations. Gantries with LED lane signalling panels have been installed and fully integrated into the Flemish traffic control centre. With the completion of dynamic traffic management services on the E40, Task 4.01 (T4.01) is now fulfilled. These systems enable lane control, variable speed management, and real-time data provision, improving safety and network reliability.

In Bavaria, the ArbIS system has been expanded to regional partners along the Alpine corridor. Several districts have begun using the system directly, supported by

continuous development and harmonised planning tools. ArbIS now displays events relevant to roadworks planning and is being integrated into broader regional workflows, demonstrating that MERIDIAN is not only deploying technology but also embedding it into operational practice.

3. Capitalisation Strategy and Activities

Capitalisation in MERIDIAN refers to the structured transfer, replication, and long-term embedding of project results beyond their initial deployment context. The project pursues capitalisation along three complementary pathways: institutional uptake, knowledge transfer, and inter-project alignment.

Institutional uptake is evidenced by the expansion of the ArbIS system to regional district authorities in Bavaria, who have assumed direct system operation. The SCM (Strategic Corridor Management) platform in Germany and the dynamic traffic management systems in Flanders are now operated by national and regional road authorities as part of routine traffic management workflows, demonstrating that MERIDIAN outputs have been formally adopted into existing institutional structures. In Latvia, newly deployed counting infrastructure and cartographic datasets have been transferred to the national road authority for ongoing operational use.

Knowledge transfer has been systematically pursued through Steering Committee and Working Group meetings, as well as targeted workshops covering digital infrastructure, multimodality, C-ITS, and AI in mobility. These sessions enabled partners to shift from introductory coordination to substantive knowledge exchange, resulting in shared operational practices and harmonised planning approaches applicable beyond the MERIDIAN partnership.

4. Cross-border Cooperation and European Alignment

MERIDIAN has strengthened its position within the broader European corridor cooperation ecosystem by establishing links with related projects including NAPCORE, MATIS, and X4ITS. A first joint meeting took place in February 2024, and quarterly coordination is now established, including joint presentations at the NAPCORE Mobility Data Days. These linkages ensure that MERIDIAN's systems and datasets are interoperable and aligned with European harmonisation frameworks. A Memorandum of Understanding (MoU) with C-Roads was signed at the ITS World Congress in Sevilla in 2025, formalising cooperation on C-ITS deployment standards and extending the project's reach beyond the consortium.

5. Outlook and Next Steps

The achievements documented in this report confirm that MERIDIAN has successfully transitioned from planning and coordination to active, large-scale implementation. Physical infrastructure has been constructed, digital systems deployed, backend platforms integrated, and traffic management capabilities operationalised across multiple corridors and Member States. In the next reporting period, priorities include completing remaining infrastructure works in Italy, finalising counting infrastructure in Latvia, extending C-ITS coverage in Germany, and deepening inter-project coordination through established NAPCORE and C-Roads

channels. Capitalisation activities will focus on documenting transferable methodologies and supporting other TEN-T corridor projects in replicating MERIDIAN's deployment approaches.