Directive 2010/40/EU

Implementation Report 2025

Malta

18th July 2025

<p align="center">**Table of Contents**</p>

1. Introduction

The 2025 Implementation Report, which also serves as an Interim ITS Action Plan, sets a clear roadmap for the next five years, focusing on the accelerated deployment of ITS in-road transport and across multiple transport modes in Malta. By integrating advanced digital, communication, and data-driven technologies, this plan aims to enhance traffic management, improve public transport efficiency, make the data required accessible, and create safer, more sustainable mobility solutions.

In late 2024, Transport Malta undertook a strategic initiative to accelerate the deployment and implementation of the ITS Directive. As part of this effort, a dedicated unit was established in November 2024 to oversee all aspects related to Intelligent Transport Systems (ITS). Currently, significant progress has been made, with work now at an advanced stage on the development of a new National Traffic Control Centre and a National Data Hub, both operating under the newly established Data and Analytics Unit (DAU). These developments will be explored in greater detail later in this report.

This Interim Action Plan is the precursor for a National ITS Action Plan which is currently being drafted to cover a ten-year time frame and is designed to optimize transport operations, reduce congestion, minimize environmental impact, and provide real-time information to users, thereby improving overall accessibility and travel experiences. This report is to be considered as an interim report due to ongoing measures being implemented over the national road network to address current bottlenecks through a number of on-going road upgrades, and hence to streamline all ITS related interventions once these works are completed, and for which justifications are explained in this document.

This initiative is closely aligned with Directive (EU) 2023/2661, which establishes a regulatory framework for ITS deployment across EU Member States, ensuring a harmonized, digitalized, and sustainable transport network. It also supports broader EU transport and mobility policies, including green and smart mobility objectives under the European Green Deal, the EU Digital Strategy, and the Sustainable and Smart Mobility Strategy. The Action Plan will facilitate the implementation of interoperable, data-driven, and connected transport solutions, fostering a more efficient and resilient transport system in line with EU standards.

The scope of this Interim ITS Action Plan focuses on enhancing national transport systems, ensuring seamless, safe, and interoperable mobility solutions within Malta and its road network. It promotes multimodal connectivity, intelligent traffic management, digitalized freight logistics, and smart infrastructure solutions. Through these efforts, Transport Malta aims to enhance transport flows and align Malta's transport systems with emerging EU ITS developments and global best practices.

By strategically investing in ITS solutions over the next five years, Malta will enhance its intelligent transport system, fostering a more efficient, digitally connected, and contribute to sustainable transport network that adapts to the evolving needs of citizens, businesses, and stakeholders.

1.1. General overview of the national activities and projects, Including national Intelligent Transport Services ('ITS') legislation or strategies, or both

The deployment of ITS in Malta is guided by an evolving policy and regulatory framework that aligns with Directive (EU) 2023/2661 and broader EU transport and mobility objectives. This directive provides a robust framework to ensure the seamless integration, interoperability, and accessibility of ITS services across Member States, promoting safer, more efficient, and sustainable transport networks.

This report reflects the key updates of Directive (EU) 2023/2661, focusing on the strengthened requirements for ITS interoperability and data accessibility, the expansion of multimodal transport services and connected vehicle infrastructure, and the obligations for Member States to deploy core ITS services. It also details Malta's national

implementation strategy to ensure full regulatory compliance and support the strategic objectives of the ITS Action Plan.

Key Updates in Directive (EU) 2023/2661

Directive (EU) 2023/2661 introduces a set of enhanced regulatory requirements to facilitate the harmonized deployment of ITS across Europe. These updates focus on the following three critical areas:

Strengthened Requirements for ITS Interoperability and Data Accessibility

The Directive places greater emphasis on the interoperability of ITS systems and the accessibility of transport-related data, ensuring seamless communication between systems and service providers. Key requirements include:

- Mandatory Data Sharing: Member States must ensure the availability of standardized ITS data, including real-time traffic information, road safety data, and public transport schedules.
- National Access Points (NAPs): Strengthening the role of NAPs as centralized platforms for collecting and sharing ITS-related data in a standardized and secure manner.
- Harmonization of Communication Protocols: ITS systems must adhere to EU-wide technical specifications to ensure cross-compatibility between digital services, transport operators, and vehicle manufacturers.
- Cybersecurity and Data Protection: Reinforced measures to safeguard data integrity and privacy, ensuring compliance with GDPR and cybersecurity best practices

Expansion of Multimodal Transport Services and Connected Vehicle Infrastructure

The Directive aims to promote a more integrated and connected transport ecosystem by encouraging the development of multimodal and connected vehicle services. This includes:

- Integrated Multimodal Transport Information: Enhancing digital travel planning services by ensuring real-time and standardized data sharing between public transport, ridesharing, cycling, and pedestrian networks.
- Connected and Automated Mobility (CAM): Strengthening the infrastructure for Vehicle-to-Everything (V2X) communication, enabling connected and autonomous vehicles to interact with traffic management systems, smart road infrastructure, and other vehicles.
- Digital Traffic Management Systems: Encouraging investment in AI-driven traffic control systems to optimize congestion management and improve road safety.

It is noteworthy that, between 2014 and 2019, Malta made considerable progress in advancing the concept of Mobility as a Service (MaaS). This was reflected in the support and facilitation of initiatives such as bicycle-sharing and car-sharing schemes, largely enabled through direct private investment totalling nearly €10 million.

The emergence of the COVID-19 pandemic and the resulting semi-lockdown measures led to a sharp decline in demand for car sharing and bicycle sharing services. This caused operations to be suspended for an extended period and placed the operating companies under severe financial strain, ultimately rendering the continued provision of these services financially unviable. The disruption marked a significant setback in the momentum that had previously been achieved.

Despite these setbacks, the Government remains firmly committed to advancing sustainable transport solutions, with a renewed focus on Intelligent Transport Systems (ITS) as a key enabler. Active mobility, carpooling, and digital mobility services continue to be policy priorities, supported by ITS-driven initiatives such as real-time travel information, integrated mobility platforms, and smart ticketing systems. These efforts are particularly targeted at key user groups, including university students, to encourage a modal shift and enhance the overall

user experience. This ongoing commitment supports Malta's broader strategic objectives to reduce private car dependency, mitigate traffic congestion, and foster more efficient, technology-enabled, and environmentally sustainable transport options.

Deployment of Core ITS Services

Directive (EU) 2023/2661 establishes binding obligations for Member States to ensure the widespread deployment of core ITS services, including:

- Real-Time Traffic Information (RTTI): Ensuring the availability of live traffic updates and congestion management data.
- Intelligent Speed Assistance (ISA): Supporting the implementation of smart speed limit systems to enhance road safety.
- eCall Emergency Systems: Strengthening the deployment of automated emergency call systems in vehicles to improve response times in case of accidents.
- Freight and Logistics Digitalization: Encouraging the use of ITS to enhance logistics efficiency, fleet management, and supply chain optimization through real-time data exchange.
- Incident and Hazardous Location Warnings: Requiring ITS systems to provide automated alerts about accidents, hazardous road conditions, and temporary roadworks.

National Implementation Strategy for Regulatory Compliance

To ensure compliance with Directive (EU) 2023/2661, Transport Malta is implementing a national ITS strategy based on the following key pillars:

Strengthening ITS Governance and Institutional Framework

- Legislative Alignment: Updating Malta's ITS legal and policy framework to reflect the latest EU requirements, ensuring seamless regulatory adoption.
- Institutional Coordination: Establishing an ITS Coordination Body within Transport Malta to oversee the deployment, governance, and monitoring of ITS services. The coordination body is composed of various units between Transport Malta as well as the national road agency, Infrastructure Malta.
- Stakeholder Engagement: Enhancing collaboration between public agencies, private sector players, and transport operators to support interoperability and innovation. On 25 -26 June 2025, Transport Malta hosted its first official Stakeholder Conference focused on the implementation of the ITS Directive, with particular emphasis on the National Access Point (NAP). The initiative was supported through funding from the NAPCORE project, which aims to harmonise and strengthen NAPs across Europe.

Enhancing ITS Data Management and Accessibility

In line with the above, the following initiatives are being undertaken.

- Upgrading the NAP: Expanding Malta's NAP to serve as a centralized hub for real-time transport data exchange in compliance with EU standards.
- Strengthening the acquisition of real-time data from our on-road ITS assets, as well as from new technologies which are currently being procured and deployed.
- Standardization of Transport Data: Ensuring ITS data is structured, machine-readable, and interoperable across various platforms, including public transport, road networks, and logistics services.
- Cybersecurity Framework Implementation: Strengthening cybersecurity protocols to protect ITS infrastructure from cyber threats and data breaches.

Investment in ITS Infrastructure and Digital Technologies

- Deployment of CAM Solutions: Supporting V2X communication and upgrading road infrastructure to enable smart traffic control, automated vehicles, and real-time hazard warnings.
- Expansion of Multimodal ITS Solutions: Integrating digital travel planners, intelligent ticketing systems, and smart public transport solutions into Malta's ITS ecosystem.
- Intelligent Traffic Management: Deploying AI-based traffic prediction systems, real-time adaptive traffic signals, and congestion monitoring tools.
- Smart Parking and EV Charging Infrastructure: Implementing digital parking reservation systems and integrated EV charging network management solutions.

Ensuring Compliance and Performance Monitoring

- Regulatory Oversight and Audits: Transport Malta will conduct periodic reviews and compliance audits to ensure all ITS services align with Directive (EU) 2023/2661.
- KPIs and Performance Metrics: Establishing key performance indicators (KPIs) to track the effectiveness of ITS deployments, covering road safety, traffic flow efficiency, and user satisfaction.
- Capacity Building and Training: Enhancing expertise within public institutions, transport operators, and local authorities through training programs on ITS implementation, data governance, and digital transport innovations.

The implementation of Directive (EU) 2023/2661 presents a significant opportunity for Malta to modernize its transport systems, enhance digital connectivity, and improve multimodal transport efficiency. The strengthened requirements for ITS interoperability and data accessibility, coupled with the expansion of multimodal and connected vehicle infrastructure, will play a key role in shaping the future of intelligent mobility in Malta.

Through a structured national implementation strategy, Transport Malta is committed to ensuring full regulatory compliance while fostering technological innovation, sustainable transport solutions, and seamless mobility experiences for all users. Over the next five years, Malta's ITS Action Plan will serve as a blueprint for the future of intelligent transport, supporting the country's transition towards a smarter, greener, and more efficient mobility ecosystem.

1.2. General progress

Transport Malta First Phase of ITS Deployment. (Summary of Malta's ITS Action Plan Implementation).

Transport Malta's first ITS Action Plan was a major initiative aimed at modernizing Malta's transport infrastructure through technology-driven solutions. The plan, developed in two phases spanning from 2013 to 2020, transitioned Malta's transport policy from infrastructure expansion to sustainable mobility through advanced traffic management.

The groundwork for this initiative began in 2005, aligning with the shift in national transport priorities. Building upon earlier successful ITS pilot projects, the plan was designed to integrate and optimize traffic systems, reduce congestion, enhance public transport efficiency, improve road safety, and lower harmful emissions. The project was also in line with EU directives, ensuring harmonization with European ITS developments.

Phase 1 (2013-2017): Laying the Foundations

During the first phase, the national ITS mainframe and an open system architecture were successfully deployed. This phase introduced a comprehensive Urban Traffic Management and Control (UTMC) system tailored to Malta's transport network. Several stand-alone subsystems were proposed some of which were rolled out, as per hereunder:

- CCTV Network: A state-of-the-art system for traffic monitoring and emergency response coordination.
- Dynamic Message Signs: Real-time traffic updates for road users, including congestion alerts and electronic lane/speed control.

- Electronic Parking Guidance: Live parking availability updates for Malta's Park and Ride facilities and a number of urban streets serving as pilot projects
- Smart Traffic Signal System: Semi-adaptive traffic signals prioritizing public transport.
- Flooding Alert System: Malta launched its National Flood Relief Project (NFRP) in the early 2010, but a more advanced and intelligent system will be introduced over the next two years as part of the ITS Action Plan, which outlines a strategic framework for the next 10 Years.

These innovations brought a transformational shift to Malta's road network, introducing a more advanced and dynamic approach to traffic management. The ongoing enhancement and integration of the UTMC system with key mobility services such as public transport, taxi services, speed enforcement cameras, and electromobility networks has significantly improved efficiency, coordination, and data-driven decision-making.

Phase 2 (2018-2020): Enhancing and Expanding the System

Building on Phase 1, Phase 2 focused on expanding ITS solutions into Malta's urban core, further improving public transport reliability and road safety. The vast quantities of real-time travel and traffic data generated by Phase 1 provided invaluable insights for optimizing transport planning and policymaking.

By the close of 2020, Malta had successfully developed a semi-integrated, technology-driven transport system, marking a significant milestone in the nation's mobility infrastructure. This transformation included a comprehensive upgrade to the public bus transport network, enhancing efficiency, accessibility, and sustainability while contributing to a more seamless urban mobility experience.

Moreover, the strategic implementation of the first and second phases of the preceding ITS Action Plan contributed to advancing Malta's intelligent transport solutions, alongside similar efforts by other countries. By leveraging cutting-edge technology and data-driven strategies, and once the ongoing ITS driven projects are implemented, Malta will be enhancing its transportation network, demonstrating its commitment to sustainable and efficient urban development, as well as a general reduction in traffic congestion and journey times.

As part of Phase 2 of the ITS Action Plan, the second platform was successfully launched in 2023. This milestone focused on developing a Common Communication Layer, designed to enhance interoperability and seamless integration across traffic management systems. By streamlining data exchange and coordination, this initiative strengthens the efficiency and responsiveness of Malta's intelligent transport infrastructure.

Key Developments:

- TMACS (Traffic Management and Control System) as the Communication Layer

  - ✓ TMACS has been implemented as the core integration framework, ensuring seamless communication between traffic lights (TLCs) and Variable Message Signs (VMS).
- Integration of MACS Suite Vertical Modules

  - ✓ MACS Suite V3 (Macs Visual – Vertical Module)
    - o Manages VMS with a total of 156 units integrated into the system.
  - ✓ MACS Suite V2 (Macs Traffic – Vertical Module)
    - o Oversees Traffic Light Controllers TLCs with 278 units connected through the common platform.

This phase of implementation marks a significant milestone in standardizing communication protocols across various subsystems within the ITS framework, enhancing coordination, optimizing traffic flow, and improving overall transport management efficiency.
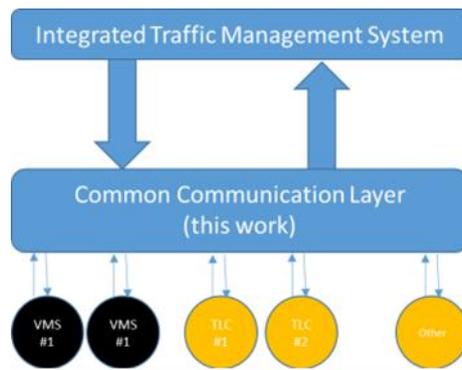
Figure 1. ITMS

Historic & Current Status of ITS in MALTA

The implementation of complementary measures under Malta's ITS Action Plan began in 2014 with the development of new road infrastructure. This initiative aimed to increase road capacity to accommodate various modes of transport while integrating sustainable mobility solutions.

However, due to ongoing major roadworks, infrastructure upgrades, and the development of new road projects, many of which were EU-funded, several ITS-related initiatives had to be rescheduled. These delays were necessary not only to align with the timeline of broader infrastructure works, but also to maximise the effectiveness of investments earmarked for ITS deployment. Additionally, physical and environmental constraints, along with damage to existing ITS assets caused during construction, further contributed to the need for postponement. During this period, efforts were redirected towards optimising traffic management and control using the available technologies, alongside the promotion of Mobility as a Service (MaaS) and enhancements to the public transport system.

It is important to note that, since the completion of the aforementioned roadworks, the planned ITS deployment is now actively underway.

Malta's current policy emphasizes the strategic deployment of ITS to facilitate a modal shift, from private vehicle dependency to more sustainable, collective modes of transport such as public transport and other sustainable mobility solutions. One of the key aspects of this strategy is the implementation of an upgraded and automated ITS platform, through the new national traffic control centre mentioned above which is designed to:

- Reduce harmful transport emissions
- Ease traffic congestion and alleviate bottlenecks
- Improve public transport journey times
- Enhance road safety
- Influence travel behaviour through real-time travel information, which is still at its inception.

This ITS interim implementation plan aligns with ongoing European Union initiatives that aim to achieve harmonization and interoperability across member states. Malta's approach adheres to the framework established by Directive 2010/40/EU and associated subsidiary regulations, including but not limited to Commission Delegated Regulations (EU) No 885/2013, No 880/2013, No 962/2015, and No 2017/1926.

The first and second phases of Malta's ITS deployment focused on establishing a robust national ITS infrastructure with an open system architecture. This involved the implementation of several key sub-systems, including:

CCTV Network for Traffic Monitoring & Incident Management

- A nationwide deployment of surveillance cameras with advanced functionalities for real-time traffic monitoring.
- The system supports emergency response coordination and improves traffic management efficiency.

Variable Message Sign (VMS) Network

- A network of digital road signs providing traffic updates, including congestion alerts, road closures, and safety notifications.
- Dynamic lane control and electronic speed signs are incorporated to enhance road safety.

Urban Traffic Management and Control System (UTMC)

- A demand-responsive system tailored to Malta's road network.
- Synchronizes traffic signals to improve flow and prioritizes public transport and emergency vehicles.

Flood Relief Infrastructure for Climate Adaptation

- Nationwide implementation of an underground tunnel system to capture and manage rainwater runoff. This initiative aligns with EU climate adaptation policies and enhances road resilience against extreme weather events.
- In addition, over the next two years, Malta will put in place an interactive road flooding alarm system in road sections prone to flooding.

Each of these sub-systems serves as a pilot project, allowing authorities to monitor their performance both individually and in combination. Data from these deployments will guide future expansion and refinement of ITS solutions across Malta's transport network, ensuring a more efficient, sustainable, and resilient mobility ecosystem.

1.3. Contact information

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NAME OF ORGANISATION	Transport Malta
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2. MAIN PROJECTS, ACTIVITIES, AND INITIATIVES

2.1. Priority area I. Information and mobility ITS services

2.1.1. Description of the main national activities and projects
Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s), and status:

✓ **Public Transport Initiatives**

Public transport routes and service frequencies have continued to be restructured and optimised to better align with the evolving and increasingly complex mobility patterns and demands of today. Since the last reporting period, new routes have been introduced with other routes modified across the network to enhance accessibility in previously underserved areas, including the extension of bus services to various industrial zones and Educational Institutions. Two new Park and Ride services have also been introduced with another one planned to be introduced in the near future. In parallel, efforts have also focused on the expansion and consolidation of the fast ferry service, which has become a key component in improving connectivity and offering efficient alternatives to road-based transport.

Island-wide growth has continued to drive increased investment in public transport infrastructure. Both the Government and the public transport operator have made substantial contributions toward upgrading the bus network. This includes the procurement of additional electric buses, as well as conventional buses, to meet the rising demand and growing bus patronage.

To position public transport as a genuine alternative to private car use, improvements in service quality, particularly in terms of punctuality, safety, and comfort, are essential. In this context, once the planned ITS measures are implemented, Intelligent Transport Systems (ITS) are expected to play a critical role by enabling the use of real-time data and AI-driven analysis to support service delivery and targeted enhancements, especially in key transit nodes.

The bus fleet has increased from 360 buses in 2015 to 460 buses in 2023. There are now a total of 36electric buses, which have been put into use on the busiest routes, with a new electric bus charging depot. The update of the public transport buses as from 2023 onwards, was as follows:

New Additions to Malta's Public Bus Fleet Since 2023

1. 2 electric uses added to the route network in 2022
2. 31 electric buses launched in September 2023, expanding daily service capacity by around 410 trips and boosting key routes
3. 1 Electric bus in November 2024
4. 2 Electric buses in August 2025
5. 30 diesel buses acquired in November 2023
6. 100 new buses announced in July 2025 (though after 2023), as replacements in a €28 million fleet-modernisation programme
7. 28 Diesel Euro 6 buses introduced during 2024
8. 5 Diesel Euro 6 buses introduced during July 2025

Photo 1. New Bus Fleet

The bus ticketing system underwent a major transformation in 2015 with the introduction of the Tallinja Card, a pre-paid smart travel card. This system significantly reduced the need for cash transactions on board, resulting in faster boarding times and consequently, improved overall journey efficiency. The subsequent implementation of Free Public Transport for all personalised Tallinja Card holders has further minimised onboard cash handling, streamlining operations even more.

The public transport operator provides real-time service information through the Tallinja App, enhancing journey planning and reliability for passengers. Additionally, the ongoing deployment of real-time information displays at key bus network locations is now feasible. Data collected automatically during daily operations via onboard vehicle tracking systems and ticketing machines is instrumental in monitoring and optimising service performance.

✓ **Intermodal Transport**

As of January 15, 2024, the Valletta ferry service connecting Sliema, Valletta, and the Three Cities was made free of charge for Tallinja Card holders. This initiative was introduced to encourage greater use of public transport and contribute to the reduction of traffic congestion on the island. Plans are currently under active consideration to formally integrate the maritime ferry service as a core component of Malta's national public transport system, with implementation envisaged between mid-2026 and 2027.

In 2024, the service recorded over 440,000 boardings by Tallinja Card holders, in addition to 1.2 million fare-paying passengers, according to data provided by Transport Malta. These figures reflect the growing popularity and strategic importance of the ferry network in improving multimodal connectivity across key urban centres.
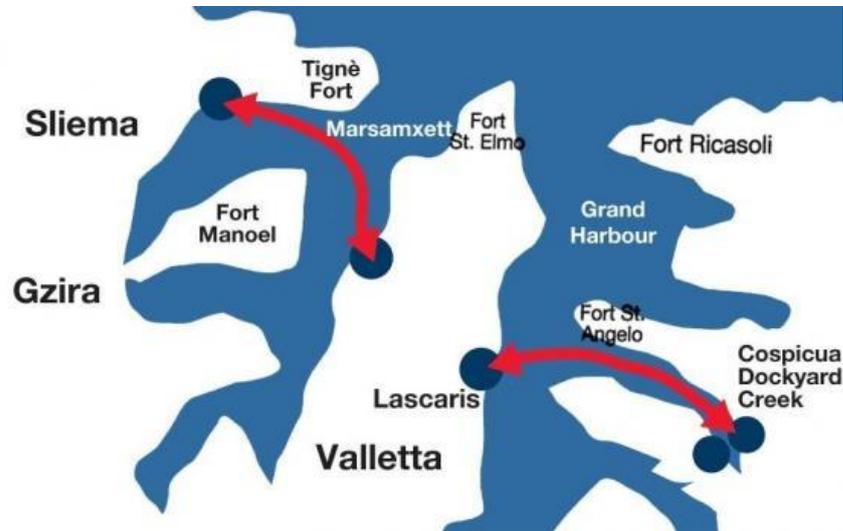
Figure 2. Valletta Ferry Service – Three cities

In July 2025, the expansion of Malta's maritime transport network continued with the opening of a new ferry terminal in St. Paul's Bay, located in the north of the island. This facility provides regular maritime connections to Sliema and Gozo, enhancing connectivity between key urban and regional areas. Notably, the ferry service between St. Paul's Bay and Sliema is offered free of charge to Tallinja Card holders, further reinforcing the government's commitment to promoting sustainable transport alternatives.

From a demand perspective, while some coordination has been achieved, particularly between inter-island ferry services and the scheduled public transport network, challenges remain. In particular, the real-time accuracy of vessel timetables has at times been unreliable. However, this situation has improved with the expansion of ferry service connections and the deployment of real-time information systems at key boarding points.

Demand for ferry services within the Inner Harbour area remains largely constrained by the limited catchment area within walking distance of the terminals. As Malta's population continues to disperse away from the harbour regions, the effectiveness of intermodal commuting options has been somewhat limited. To address this, the forthcoming ITS platform will include a real-time journey planning tool that displays timetable synchronisation across modes, which is expected to significantly improve service integration and user uptake.

In parallel, continued efforts have been made and are still being made to enhance data capture from current and planned cycling infrastructure, as well as from the updated ferry landing sites which have been upgraded to improve accessibility and passenger amenities, supporting a more seamless and multimodal transport experience.

✓ **The Vehicle Registration and Administration (VERA) system**

The Vehicle Registration and Administration (VERA) System is Malta's centralized national database for all road-going motor vehicles. It is meticulously being updated daily with information on vehicle registrations, licenses, scrappage, exports, and ownership transfers, ensuring that vehicle data remains current and accurate.

Recognizing the need for modernisation, plans are underway to upgrade the existing VERA system with a more advanced platform altogether. The new system aims to enhance the system's efficiency and effectiveness,

providing a stronger tool for transport planners, enforcement, and policymakers. The new platform is expected to incorporate advanced ITS technologies, enabling the collection and analysis of extensive traffic and travel-related data. This data will be instrumental in research and development initiatives focused on improving Malta's transportation infrastructure and services.

The commitment to this technological refresh underscores Malta's dedication to maintaining a robust and modern vehicle administration system. This initiative aligns with the broader goal of integrating advanced technologies into national transport systems to enhance safety, efficiency, and sustainability. This technological refresh consists of the following:

1. Interoperability and Integration with Other Modes of Transport:
- VERA integrates data from multiple stakeholders including public transport, roadworthiness testing (VRTS), fleet systems, insurance companies, local enforcement, and Controlled Vehicular Access (CVA) systems.
- Web services and APIs enable real-time and scheduled data sharing, enhancing multimodal transport data exchange, a key goal of the directive.

2.Support for Environmental Objectives:
- Implements CO2-based registration and licensing fees under the "Polluter-Pays" principle, incentivizing low-emission vehicles.
- Special treatment for EVs and the inclusion of WLTP emissions data show alignment with sustainability goals of the directive.

3.Data Availability and Reusability:
- VERA offers scheduled XML data exports, open access to structured vehicle and registration data to various stakeholders, improving data reuse and accessibility.
- Historical and current data is retained and made available for reporting and regulatory oversight.

4. User-Centric Digital Services:
- eVERA portal supports digital self-service for renewals, payments, and vehicle enquiries.
- Integration with Malta's mGOV platform for mobile notifications shows a strong orientation towards digital transformation and accessibility.

5. Security, Privacy, and Role-Based Access:
- VERA uses role-based access controls, secure digital certificates, and is transitioning to ADFS authentication with MITA SSO, complying with the directive's requirements for data security and controlled access.

6. Future-proofing and Extensibility:
- The modular and interoperable architecture of VERA supports future enhancements, such as integration with other EU-wide ITS services, and aligns with the directive's vision of a harmonized, scalable ITS infrastructure.

VERA System & Compliance with NAP Requirements under Directive (EU) 2023/2661

As Malta continues to develop its NAP for transport data, the refreshed VERA system provides a core compliance component aligned with the key requirements of Directive (EU) 2023/2661, which updates the legal framework for ITS and mandates the establishment of a NAP in every Member State.

Key Compliance Features of VERA with NAP Functions

Directive Requirement	VERA System Capability	NAP Relevance
Accessible and standardised transport data	VERA outputs structured XML data, both current and historical, via scheduled tasks	Ready for ingestion into NAP using standard, machine-readable formats
Data reuse and interoperability	Multiple APIs/web services for vehicle, insurance, enforcement, emissions, and licensing data	Enables integration with other ITS systems and supports cross-border services
Multimodal transport support	Integrates with fleet systems, public transport operators, enforcement systems, CVA, and roadworthiness tests	Contributes multimodal transport data to the NAP for enhanced journey planning and analytics
Real-time and historical data availability	Offers scheduled daily XML exports and ad hoc queries, with version control and logging	Supports real-time feeds and historical lookups for 3rd parties via NAP
Secure data access and role-based permissions	Utilizes secure web services, SSO (ADFS), digital certificates, and audit trails	Ensures NAP access meets EU standards for data protection and access control
Open and non-discriminatory access	Designed to expose data to insurers, garages, brokers, and public entities through APIs	Establishes an open ecosystem necessary for a compliant NAP interface

   ✓ **The Valletta Controlled Vehicular Access (CVA) system**,

The Valletta Controlled Vehicular Access System, inaugurated on May 1, 2007, marked Malta's pioneering venture into ITS. Internationally acclaimed as a best practice model, the CVA replaced a flat-fee access charge with a dynamic 'pay-as-you-use' system, effectively managing vehicular congestion in the capital city.

System Overview

The CVA employs Automatic Number Plate Recognition (ANPR) technology across 14 entry and exit points, utilizing over 23 specialized infrared cameras. These cameras capture vehicle license plates within a 1.5-meter field of view, ensuring comprehensive monitoring. Annually, the system records between 12 to 14 million vehicle movements. Captured data is cross-referenced with the national vehicle registration database, allowing for precise calculation of each vehicle's duration within the CVA zone and the corresponding fees based on established tariffs.

The CVA system in Valletta primarily serves as a traffic congestion reduction measure within the city. The system utilizes ANPR technology, with cameras strategically installed at twelve entry and exit points to monitor and regulate vehicle access. The CVA system calculates the duration of a vehicle's stay and applies charges based on tariffs set by Transport Malta. In addition to its role in traffic management, the system contributes to promoting sustainable urban mobility by discouraging unnecessary vehicle use in Valletta's historic centre.

Between 2016 and 2021, the CVA system underwent an expansion of its perimeter, adjusting its access zone to enhance enforcement and better regulate vehicular movement. This expansion aligned with broader efforts to strengthen environmental and urban sustainability policies while ensuring that Valletta remains accessible to residents, businesses, and visitors in a more controlled and efficient manner.

User Interaction

Vehicle owners receive regular billing statements by post. Additionally, they can monitor their CVA account status by contacting the CVA helpdesk or accessing the dedicated online portal. cva.gov.mt

Exemptions

The system automatically processes various exemptions, including:

1. Residency exemptions
2. Ad-hoc exemptions (temporary or one-time)
3. Special needs/disability exemptions
4. Medical and administrative exemptions
5. Public transport vehicle exemptions
6. Time-based exemptions (specific time ranges)

✓ **Malta's Public Bus Transport Operator**

The Public Transport Operator has significantly enhanced its services by integrating advanced ITS to improve passenger experience and operational efficiency. Central to this upgrade is the Automatic Vehicle Monitoring (AVM) system, which enables real-time tracking of the entire bus fleet. Each bus is equipped with a tracking device that communicates with both the operator's central control room and Transport Malta's National Traffic Control Centre (NTCC). This integration facilitates effective traffic management, control, and enforcement, ensuring timely responses to any operational issues.

Photo - DOI - Jeremy Wonnacott

Photo 2. MPT Control Centre

To keep passengers informed, buses are fitted with on-board visual and audible information systems that announce upcoming stops and final destinations. Additionally, operational staff can provide real-time updates to passengers through the Real-Time Passenger Information (RTPI) displays and network updates. As a result of the upgraded bus fleet, the NAP will be able to collate accessibility information in its ITS as well as all the information related to the electric part of the bus fleet.

Passengers can also benefit from the Tallinja App, which offers real-time bus tracking and service alerts, allowing users to plan their journeys more efficiently. Through these initiatives, Malta's public transport system continues to evolve, integrating advanced technologies to provide efficient, reliable, and sustainable services to its passengers.

✓ **Mobility as a Service**

Transport Malta collaborated with the private sector to expand sustainable mobility options, introducing innovative services such as bicycle sharing, EV car sharing, motorcycle sharing, and electric scooter services.

Bicycle and car sharing schemes were launched through direct private investment exceeding €10 million and remained operational until the onset of the COVID-19 pandemic. However, due to the sharp decline in transport demand during the semi-lockdown period, which significantly reduced commuter activity, both services were discontinued. While motorcycle sharing continues to operate, electric scooter sharing was suspended due to increasing safety concerns and the risks associated with its usage.

Despite these challenges, Transport Malta remains committed to advancing sustainable urban mobility and is actively exploring strategies to relaunch similar systems in the near future, ensuring they align with safety standards and evolving transportation needs.

✓ SUMP

As part of the Civitas DESTINATIONS project, Intelligent Transport Systems (ITS) were identified as a key enabler in the development of a comprehensive Sustainable Urban Mobility Plan (SUMP) for the Northern and Southern Harbour Regions of Malta. The initiative aimed to establish a strategic framework for improving urban mobility through data-driven planning, congestion mitigation, and the promotion of environmentally sustainable transport solutions in these densely populated areas.

Following the SUMP's publication in 2022, Malta began expanding its ITS-based mobility planning to cover all regions across the Maltese Islands. This broader approach reflects a national commitment to leveraging ITS technologies, such as traffic management systems, real-time data applications, and integrated mobility platforms, to support a unified, island-wide transport strategy tailored to the needs of each locality.

In parallel, work is underway on a Sustainable Urban Logistics Plan (SULP), which will also integrate ITS tools to optimize freight distribution, enhance delivery efficiency, reduce emissions, and support economic growth through smarter urban logistics operations.

Both the SUMP and SULP, underpinned by ITS, form essential components of Malta's National Transport Strategy 2050. This long-term vision promotes a modern, intelligent, and sustainable transport ecosystem that balances the demands of mobility, environmental stewardship, and economic development. ITS will play a central role in guiding future infrastructure investments, enhancing public transport services, and enabling more accessible and efficient active mobility options across the country.

These two initiatives, which include a number of ITS-related elements, will also be included into the updated Malta's ITS Action Plan, currently being drawn up.

✓ Electric Charging Pillars Deployment

Malta's EV charging solution is structured around two main components: the **Charge My Ride app** and the **EVCore back-end system**. The app is the official interface for EV users, allowing them to locate publicly accessible charging stations, start or stop a session, pay for usage, and access their transaction history. The EVCore system serves as the central management platform, overseeing the operation, monitoring, and billing of all OCPP-compliant charging stations. It supports multiple user profiles, generates reports from a centralized database, and ensures infrastructure reliability. While no updates were included in the 2023 report, significant progress was made in 2022.

This included the installation of 38 new charging pillars, the replacement of outdated demo units, completion of a nationwide infrastructure inventory, and the installation of signage, bollards, and markings to standardize charging sites. Spare parts were procured to cover ongoing operations, and an online monitoring system was established with the contractor for real-time issue resolution. Additionally, tenders were launched for the

deployment of 600 new pillars, alongside preparations for a National Platform to manage all existing and future infrastructure under one system.

2.1.2. Progress as from 2023:

- Installed 38 new charging pillars, including the replacement of old demo units.

- Compiled a complete inventory of all charging infrastructure.

- Installed missing bollards, signage, and green road markings at charging sites.

- Procured all necessary spare parts to maintain operations through the end of the contract.

- Set up an online monitoring and control system with the contractor to handle technical issues.

- Issued tenders for project management, civil works, and supply of 600 additional charging pillars.

- Began preparations for a National Platform to manage all current and future EV publicly accessible charging infrastructure.
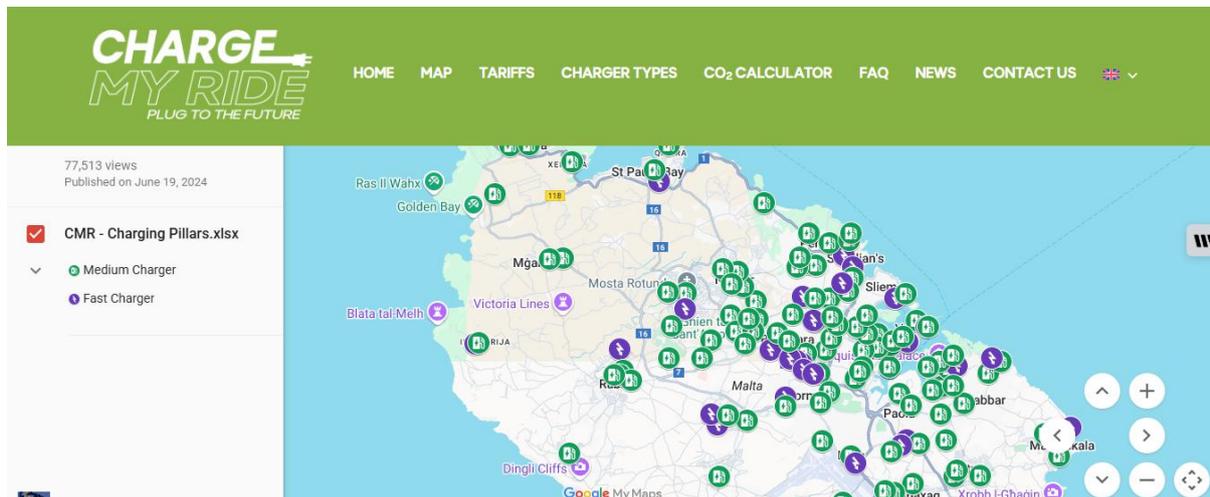
Photo 3. Charge My Ride App – Electric Charging Pillars Network

2.1.3 Delegated Regulation (EU) 2017/1926 on the provision of EU-wide multimodal travel information services (priority action a)

This is being reported in more detail below in the document.

Progress made in terms of the accessibility, exchange, and reuse of the travel and traffic data types set out in the Annex:

Geographical scope of the data set out in the Annex accessible via the national access point, and their quality, including the criteria used to define this quality and the means used to monitor it:

Linking of travel information services:

Results of the assessment of compliance referred to in Article 9:

Where relevant, a description of changes to the national or common access point:

With our recent transition to active partner status in the NAPCORE-X project, having previously participated only as followers, Malta is now set to begin the implementation of a new National Access Point (NAP). This implementation will be guided by the recommendations and outputs produced through the NAPCORE-X initiative, ensuring alignment with best practices and facilitating compliance with the requirements of the ITS Directive.

The rollout of the new NAP will be undertaken in parallel with the deployment of the new National Traffic Control Centre (NTCC). While detailed reporting is not applicable at this stage, we are planning to provide a comprehensive progress update by the end of 2026.

2.1.4 Reporting obligation under Delegated Regulation (EU) 2022/670 on the provision of EU-wide real-time traffic information services (priority action b)

Progress made in terms of the accessibility, exchange and reuse of the data types set out in the Annex:

Geographical scope of the data accessible via the National Access Point, changes to the primary road network and to the data content of real-time traffic information services and their quality, including the criteria used to define this quality and the means used to monitor it:

Results of the assessment of compliance referred to in Article 12 with the requirements set out in Articles 3 to 11:

Where relevant, a description of changes to the national or common access point:

Additional information (e.g. what data types are being provided? Have mobility DCAT-AP or other metadata catalogues been implemented? Are quality requirements being checked?):

As Delegated Regulation (EU) 2017/1926 has been repealed by Delegated Regulation (EU) 2022/670, the same considerations as outlined above shall apply.

2.2. Priority area II. Travel, transport, and traffic management ITS services

2.2.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

Building on the last reported update on speed camera deployment up to 2022, additional permanent speed cameras have since been installed along road segments with poor safety records, as well as on newly completed TEN-T infrastructure projects. Overall, the continued rollout of speed enforcement infrastructure has proven effective in reducing vehicle speeds and lowering the incidence of traffic accidents—both within the immediate vicinity of the cameras and, to a degree, across broader areas, particularly given Malta's compact road network.

The currently deployed speed cameras across Malta are radar-based systems, capable of detecting vehicles exceeding the legal speed limit. Once a violation is recorded, the data is transmitted in real time via wireless

technology to a central administration centre. There, Automatic Number Plate Recognition (ANPR) software is used to match the vehicle's number plate with the registration data stored in the VERA system. The registered owner's address is then retrieved, and a speeding fine is automatically issued and dispatched by post to the appropriate recipient.

As part of the new ITS Action Plan referenced above, one of the key pilot projects supporting the continued deployment of speed cameras across Malta involves testing a C-ITS (Cooperative Intelligent Transport Systems) use case. In this pilot, all speed cameras will be enabled to communicate with Roadside Units (RSUs) to provide real-time notifications to drivers of approaching speed enforcement zones.

This initiative directly contributes to the fulfilment of **Priority Area IV of the ITS Directive**, which focuses on ITS services for cooperative, connected, and automated mobility, and marks an important step toward enhancing road safety through connected infrastructure.

✓ *CCTV and VMS Network*

The primary objective of the CCTV network remains the visual monitoring of traffic conditions and real-time observation of incidents across the road network. In addition to live monitoring, a subset of cameras is equipped with Automatic Incident Detection (AID) and Automatic Number Plate Recognition (ANPR) capabilities, enhancing both traffic management and enforcement functions.

Regarding the Variable Message Sign (VMS) network, the system continues to play a key role in delivering real-time, en-route information to road users. Under the framework of the new ITS Action Plan, Transport Malta is preparing to pilot an innovative use case wherein VMS messages will also be transmitted directly to drivers, based on their current location and prevailing traffic conditions in the area. This will allow drivers—especially those in zones without physical VMS displays—to receive timely updates and make informed travel decisions.

This initiative directly supports the objectives outlined under Priority Area IV of the ITS Directive, which focuses on cooperative, connected, and automated mobility services, and marks a step forward in improving the reach and effectiveness of dynamic traffic information systems.

The current network is made up of the following:

1. 32 small VMSs, the dimensions of which are 1100mm weight by 2100mm high. A single colour matrix with yellow LEDs displays pictograms, messages and animations in full matrix. Three lines of text can be displayed with 14 characters per line (character height 7 pixels or 105mm).

2. 15 medium-sized VMSs, the dimensions of which are 1175mm wide by 3100mm high. A single colour matrix with yellow LEDs display pictograms, messages and animations in full matrix. Three lines of text can be displayed with 23 characters per line (character height 7 pixels or 105mm).

3. 81 Lane Change Signs (LCS) mainly at tunnel portals. The dimensions of the LCS are 1250mm wide by 1250mm high. The LCS have a full colour matrix with a resolution of 32x32 LEDs, a pixel pitch of 20mm, and the ability to display all traffic sign pictograms.

Additional ITS interventions in the area of traffic management have the potential to significantly enhance the effectiveness of congestion mitigation, particularly during peak travel hours. As previously outlined in this reporting document, the implementation of the new ITS platform was temporarily halted due to legal constraints. While some progress has been made since the last reporting period, the anticipated tangible outcomes resulting from the full deployment of the platform are expected to be reported in the next reporting cycle.

These developments are being fully addressed within the framework of the new ITS platform, which is being designed to meet the core obligations set out in Directive 2010/40/EU and its associated Delegated Regulations.

2.2.2. Progress since 2023

Description of the progress in the area since 2023:

With regard to Public Transport Management, the operation of the national scheduled bus service is managed by a private entity, which maintains its own Operational Control Centre. To support a more integrated and

coordinated transport management system, this control center will be linked via an API to both the national ITS platform and the National Access Point (NAP).

As previously noted, the implementation of the ITS platform was delayed due to legal constraints. However, integration efforts are now scheduled to commence in Q4 2025, as part of the broader rollout of the new platform.

The scheduled public transport operator has launched a mobile application that enhances the passenger experience by providing a range of useful features. Through the app, users can locate the nearest bus stop, plan their journeys, and access real-time information on bus locations.

The system is fully integrated with GPS technology, ensuring that all data provided, such as arrival times and vehicle positions, is updated in real time, thereby supporting more reliable and efficient travel planning.
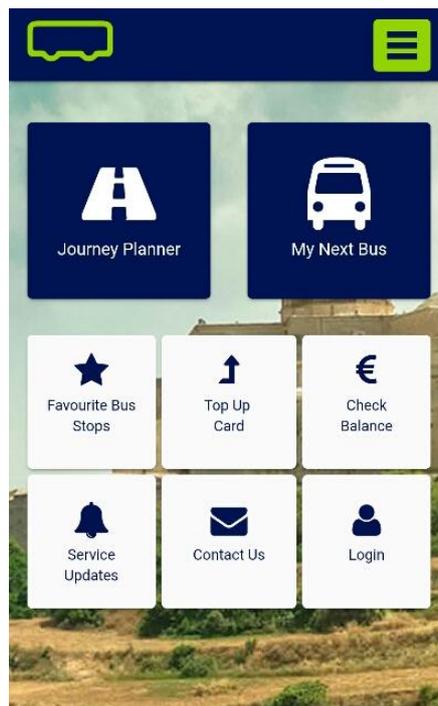
Photo 4. Tallinja App

As part of Malta's continued implementation of the ITS Directive 2010/40/EU, and in line with the obligations established under Article 17, notable progress has been made in enhancing multimodal travel information services. A key development in this regard is the recent enhancement of the Tallinja App, the mobile application developed and maintained by Malta Public Transport (MPT), which now offers real-time bus tracking to the general public.

Launched in March 2024, the enhanced " "Follow My Bus" feature allows passengers to monitor, in real time, the live location and estimated arrival time of buses using dynamic GPS data. The feature enables users to follow their bus on a digital map, making the commuting experience more transparent, predictable, and efficient. This enhancement is aligned with EU ITS objectives of promoting user-centric, digitally integrated public transport systems and is particularly relevant to the goals of providing real-time multimodal travel information services, as defined under Priority Action of the Directive.

The implementation of this feature is supported by a dedicated Control Centre operated by Malta Public Transport. All buses in the fleet are equipped with GPS-enabled Automatic Vehicle Monitoring (AVM) units, which feed real-time data into this centralised operational platform. The AVM system continuously collects operational information, including location, speed, route adherence, and schedule performance. This data supports real-time dispatching, operational adjustments, and incident management. Additionally, it powers the real-time information systems visible both in the app and at physical bus stops throughout the network.

Looking ahead, this real-time AVM data will form a critical component of Malta's future ITS architecture. Under the forthcoming National ITS Action Plan, Transport Malta will implement a new centralised ITS platform designed to integrate all transport-related sub-systems into a unified framework. As part of this integration, data collected by the AVM system operated by the bus operator will be systematically pushed into the Transport Malta ITS platform. This represents a transition from isolated, operator-specific systems to a nationally coordinated, interoperable ITS environment.

The benefits of such integration are substantial. By consolidating data from multiple sub-systems, including public transport, road traffic management, enforcement, and infrastructure sensors, into a single ITS platform, Transport Malta will significantly enhance its ability to manage transport systems holistically and in real time. One of the most impactful outcomes of this integration is the improved provision of travel and transport data through the establishment of a National Access Point (NAP), which Transport Malta is scheduled to roll out in the coming months as part of the ITS Action Plan.

The National Access Point will serve as the central interface through which harmonised, standardised transport data, such as real-time public transport positions, static schedules, and road traffic conditions, will be made available to authorised stakeholders and third parties. This supports broader EU goals of open data and multimodal travel information provision, enabling public and private service providers to develop value-added mobility services. By feeding accurate, real-time AVM data into the NAP, Malta will ensure that users, developers, and authorities have access to up-to-date, authoritative information.

Currently, Malta has a temporary NAP, which is updated manually and can be found at https://geoservices.transport.gov.mt/egis

Furthermore, this level of integration strengthens cross-border data interoperability and lays the foundation for future cooperative ITS (C-ITS) services. It also contributes to improved transport planning, better-informed travelers, and more efficient emergency and traffic incident responses.

In conclusion, the rollout of real-time tracking in the Tallinja App represents a significant step in ITS deployment within Malta. It demonstrates effective use of existing AVM infrastructure to improve public transport services and passenger experience. More importantly, the planned integration of this data into the national ITS platform and its subsequent availability through the upcoming National Access Point illustrate Malta's commitment to a connected, data-driven transport future. These initiatives fully support the aims of the ITS Directive and affirm Malta's proactive role in developing a sustainable and intelligent transport system for all users.

✓ *Maritime Transport*

The islands of Malta and Gozo are connected by a vital maritime service operated by Gozo Channel (Operations) Limited, which provides regular ferry crossings between the ports of Ċirkewwa in Malta and Mġarr in Gozo. This service is the primary transport link between the two islands, carrying both passengers and vehicles throughout the year. The Gozo Channel fleet currently consists of three roll-on/roll-off ferries, MV Ta' Pinu, MV Gaudos, and MV Malita, each capable of accommodating hundreds of passengers and vehicles per crossing, with a fourth hybrid vessel introduced to enhance sustainability and efficiency. The journey takes approximately 25 minutes and operates with high frequency, especially during peak hours, public holidays, and weekends. Supporting this essential service is the Gozo Channel mobile app, which allows users to access real-time sailing schedules, monitor live vessel positions, receive instant service alerts, and view traffic conditions at terminal areas through integrated live cameras. Together, the ferry fleet and the digital app form a cohesive, modernised transport system that ensures reliable, accessible, and seamless connectivity between Malta and Gozo.

The **Gozo Channel app** is the official mobile application designed to support ferry passengers travelling between Malta and Gozo. Developed with the goal of enhancing the commuting experience, the app provides real-time ferry schedules, service updates, and travel information directly to users' smartphones. Available for both Android and iOS devices, the app allows users to view the next scheduled sailings from Ċirkewwa (Malta) and Mġarr (Gozo), as well as the full daily timetable. One of its most valuable features is the real-time trip monitoring functionality, which offers live updates on ferry departure and arrival times, based on GPS tracking of vessels.

To further support travel planning, the app also includes access to live traffic camera feeds from the marshalling areas at both terminals. This allows passengers to assess boarding conditions and vehicle queue lengths before

arriving. In the case of delays, cancellations, or service disruptions, the app provides immediate alerts through push notifications and in-app messages, ensuring that passengers are kept fully informed.

While the primary focus of the app is information delivery, it also complements the Gozo Channel's e-ticketing system, which enables online ticket purchases and digital ticket presentation at boarding. Additionally, the app offers details about onboard amenities such as free Wi-Fi, refreshment options, and climate-controlled seating areas, helping passengers prepare for their journey in advance.

Overall, the Gozo Channel app is a user-friendly and reliable digital tool that significantly improves the efficiency, convenience, and predictability of ferry travel. It enhances the commuter experience by reducing uncertainty and wait times, while also supporting better traffic flow at the terminals. This makes it an essential service for both residents and visitors using the Gozo Channel service.
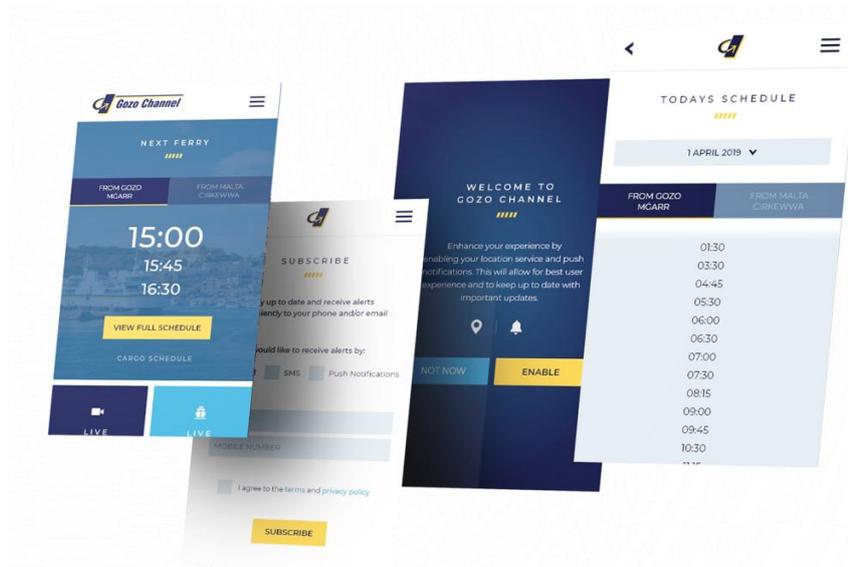

Photo 5. Gozo Channel App

The introduction of the fast ferry service between Valletta and Gozo in June 2021 marked a significant step forward in strengthening Malta's maritime connectivity. This service offers a faster, high-speed alternative to the traditional ferry route from Ċirkewwa, reducing the journey time to approximately 45 minutes. Operated by modern catamaran vessels capable of carrying up to 300 passengers and reaching speeds of up to 32 knots, the service has considerably improved travel efficiency for both commuters and tourists. With up to 15 sailings per day, it provides a convenient and flexible option for those travelling between the islands. The fast ferry service is also a key initiative in Malta's efforts to promote a modal shift, from private car use to sustainable maritime transport, thereby easing road congestion and reducing environmental impact.

Complementing this is the catamaran service linking Valletta with the Three Cities, Vittoriosa, Cospicua, and Senglea, as well as with Sliema. Operated by Valletta Ferry Services, this route provides frequent connections every 30 minutes, particularly during the spring and summer months, with extended service into the evening during peak seasons. Its simple fare structure and integration with the wider public transport network further encourage its use as a practical alternative to car travel.

Both ferry services were implemented as part of a broader strategy to enhance intermodal connectivity across the islands, reduce dependency on road transport, and support a more sustainable, resilient urban mobility system. By offering fast, frequent, and comfortable sea transport, these routes help alleviate pressure on Malta's road network while supporting environmental objectives and improving the overall quality of the transport system.

Additional to the above, a new fast ferry service is being launched from Bugibba, St. Paul's Bay, linking Sliema and Mġarr (Gozo). Scheduled to commence by the end of August, the service will offer a faster and more scenic alternative to road travel, complementing Malta's strategy to ease congestion through improved sea-based

mobility. The project includes the inauguration of a newly constructed ferry terminal and a 180-metre breakwater in Bugibba, enhancing safety and accessibility for passengers. The route will integrate with other transport modes, ensuring seamless connectivity, and will feature a range of fares, from €8.50 standard one-way tickets to discounted options for Tal-Linja cardholders, students, seniors, and Gozo ID holders, while children under three and public hospital patients will travel free of charge

✓ **GIS Platform**

Advances in technology have made GIS more valuable in almost every field, not least of all transport, and Transport Malta is aiming to keep abreast with technology. As the GIS technology continues to evolve and our individual systems are becoming part of a larger interconnected platform, a platform to bring together all our data, technology, processes and people together was required. In view of this, Transport Malta is continuously updating its GIS Platform not only for the use of the public and stakeholders, but most imperative for the internal use across Transport Malta directorates. The GIS Platform supports the backbone infrastructure required to facilitate and streamline processes, and to integrate isolated datasets used by the different target groups. The consolidation of operations within the directorates has facilitated transportation planning decisions by providing one common source to integrate, visualize and manipulate land, air and sea transport. This results in strengthening the harmonization required between different modes of transport.

The platform allows an authority-wide access to GIS data based on authorized content, whereby each directorate can visualize the data they own superimposed on vector or raster base maps. Initially, Transport Malta focused on the development of the public portal. Subsequent deployments of the other services followed, where each directorate is now equipped with a service using specific tools related to the business process and datasets. The GIS Platform has mixed modes of services to cater for specific needs, captured during the first activity of the project. Such interfaces feature a group specific service for the provisioning of related specific data and tools required. Exposing web services ensures interoperability between the GIS based solutions currently deployed at Transport Malta and also with major entities in Malta.

During the last couple of years, Transport Malta together with over 20 other entities entered into a Government-wide Agreement on the Environmental Systems Research Institute, Inc. (ESRI), Technology, leader in providing GIS based Technology having over 55% share worldwide. Through this agreement signed by the Malta Information and Technology Agency (MITA) – the IT arm of the Government of Malta, directly with ESRI, MITA will provide central coordination in the area of GIS technologies, licenses and services, and facilitate flexible access to the latest ESRI technology and services. This will enable further growth in the use of GIS capabilities to support current and future strategic geospatial initiatives.

Transport Malta entered into various Memoranda of Understanding with other various Government entities to share bi-directional their geospatial data. Whilst each maintaining ownership of their legal datasets, these shared services resulted in a cost saving mechanism whilst upkeeping the datasets with the latest information.

Other Governmental bodies are using the GIS Platform as their main repository to capture their geospatial data, namely Infrastructure Malta and also the Ministry for Environment, Energy and Enterprise (MEEC), for their respective business. Infrastructure Malta, the entity responsible for the Roads and Maritime Infrastructure, is keeping the Projects updates both Marine and Road based Maintenance and Directional Signage using the GIS Platform. Thus, the resultant information is harmonizing the interoperability between the Government's entities. On the other hand, the MEEE is using the GIS Platform for the upkeeping of the Charging Pillars network.

In the coming year, the GIS Platform shall have a substantial technology refresh. One of the important upgrades is the backbone of the entire GIS Architecture, featuring a complete overhaul of the technology move of the digital business operations into the cloud. One of its initial Pilot Projects on this new Architecture shall be the move of the local Hydrographic Office moving their business to the same technology of the GIS Platform and on the cloud.

In Malta, over 90% of the Traffic Light Controlled junctions are operated in an actuated mode whereby the traffic light controller uses inductive loops located on each lane for each direction to either increase the green time or move onto the next step. Every time a vehicle passes over, the inductive loop switch is activated, and this data is logged by the controller as a count. In this way the traffic counts are generated and stored continuously for all directions in the junction.

A project currently underway is the Communication Layer. Transport Malta requires the building blocks to interpolate with an Intelligent Transport Management Systems to provide the required analytics and eventually to automate such processes. Transport Malta is aiming to have all the Traffic Lights, CCTVs and VMS centralized

and communicate through a Common Communication Channel whereby different makes and models are to be connected to a central management platform (that is ITMS) as depicted in the image below. Currently, various models of Traffic Lights, VMS and CCTVs are installed, and our aim is to harmonize these systems through this platform.
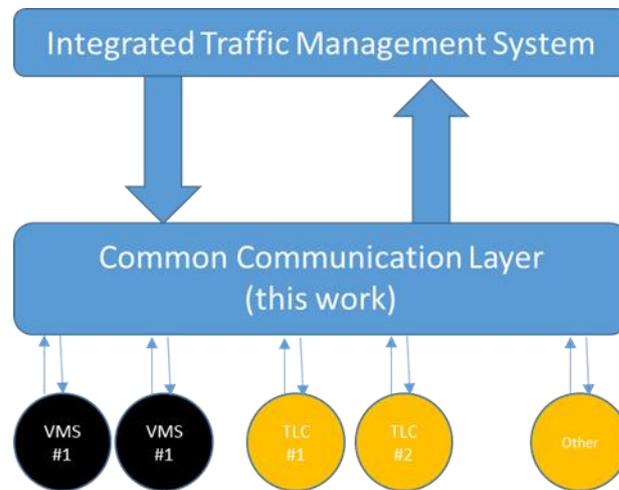
Figure 3 – Phase 1 Common Communication Layer integrated with Phase 3 ITMS

The common communication layer is of an utmost importance and a pre-requisite to reach the main objective of developing an NAP and abiding by Directive 2010/40. This project will gather all makes and models of the current existing hardware and consolidate them to communicate with each other from one single platform (for each type of hardware) for ease of management by the Control Centre. Eventually, during the third phase, all hardware types will be communicating automatically with each other.

An imperative addition to the GIS Platform is the interoperability with the Road Permitting System. As the current permitting system - the Road Permit System is not a GIS based solution, such permits for road closures or partial road closures cannot be visualized on a map within this system. In order to mitigate this limitation, a webservice was created between the GIS Platform and Road Permitting System (RPS), to facilitate interoperability between the two solutions. This dedicated webservice, visualizes the issued RPS permits on the GIS Platform by pinpointing a centroid on the Street Network with the details of the issued permits including the works, and the start and end date of the valid permit. This service is live and provides dynamic data on road works and road closures to the general public and stakeholders.
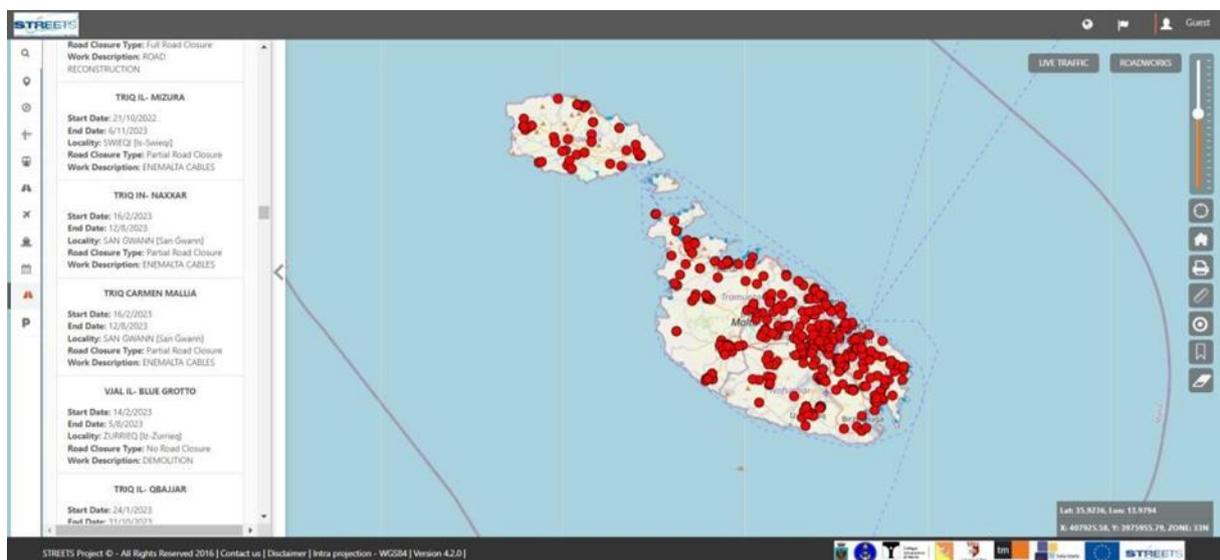
Photos 6. Malta GIS

The iROADS platform represents a transformative step forward in how road permit management is conducted in Malta. Designed as a cloud-native, integrated digital solution, iROADS aims to modernise the entire permitting lifecycle—making it more efficient, transparent, and scalable to meet the country's evolving infrastructure needs.

At its core, iROADS is focused on improving temporary and permanent traffic management by streamlining road permitting processes. Through a more intuitive and automated interface, stakeholders—including contractors, local councils, and internal Transport Malta (TM) officials—can easily submit, track, and manage road permit applications. The system reduces reliance on manual processes, shortens approval timelines, and cuts down on administrative errors, leading to greater cost-efficiency and operational consistency.

One of the platform's key strengths lies in its interoperability with Geographic Information Systems (GIS), enabling real-time mapping, visualisation of permit zones, and detection of overlapping submissions. This enhances situational awareness, helping prevent conflicts in road usage and improving traffic flow. Phase 1 of the system—focused on Temporary Traffic Management via the Road Permit System (RPS)—includes key features such as map-based intervention prompts, alerts for overlapping permits, enhanced scheduling tools, and integration with enforcement modules. It also extends to include permits issued by local councils.
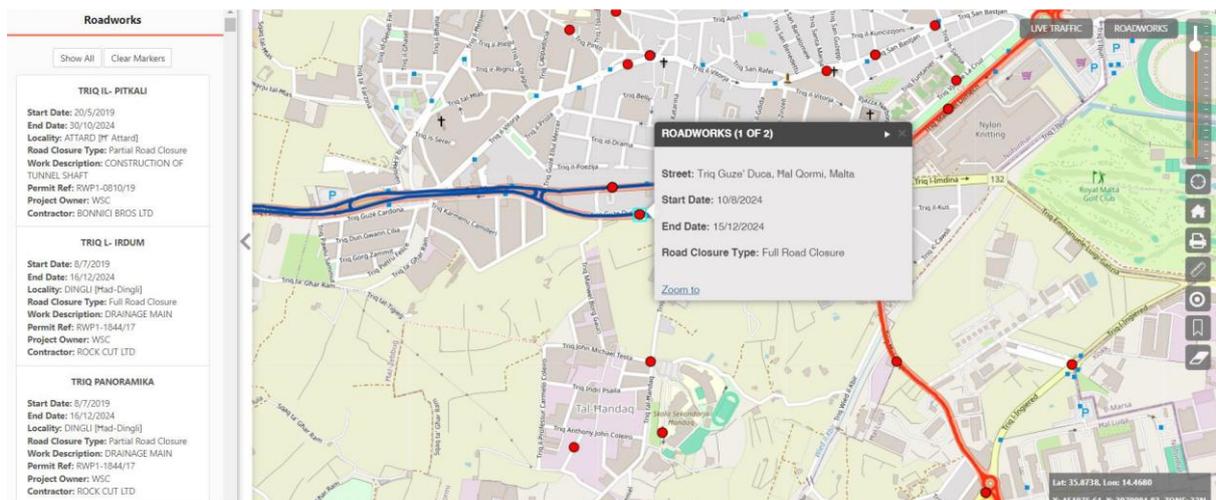
Photo 7. Temporary Traffic Management via the Road Permit System (RPS)

Phase 2, which targets Permanent Traffic Management, will enable more structured interaction between TM and clients through a digital platform that supports file uploads, GIS data input, and time-bound hierarchical workflows. It will also feature internal coordination tools, including Planning Authority application tracking and internal-only consultations, creating a centralised, easily searchable archive of all traffic-related interventions and decisions.

Importantly, iROADS also addresses data security and regulatory compliance. With built-in audit trails, encrypted data handling, and alignment with ISO 27001 and TickIT Plus standards (through TRL, the system provider), the platform ensures the confidentiality and integrity of sensitive information. These features are especially vital given the platform's role in managing national road infrastructure and critical safety data.

Looking ahead, iROADS is designed to be scalable, capable of handling increased volumes of permit requests, integration with broader traffic and asset management systems, and expansion to new jurisdictions or use cases. With the deployment of key performance indicators (KPIs) and measurable targets over the coming years, the system will support data-driven decision-making, improve road safety, reduce congestion, and ensure that infrastructure development aligns with national transport strategies.
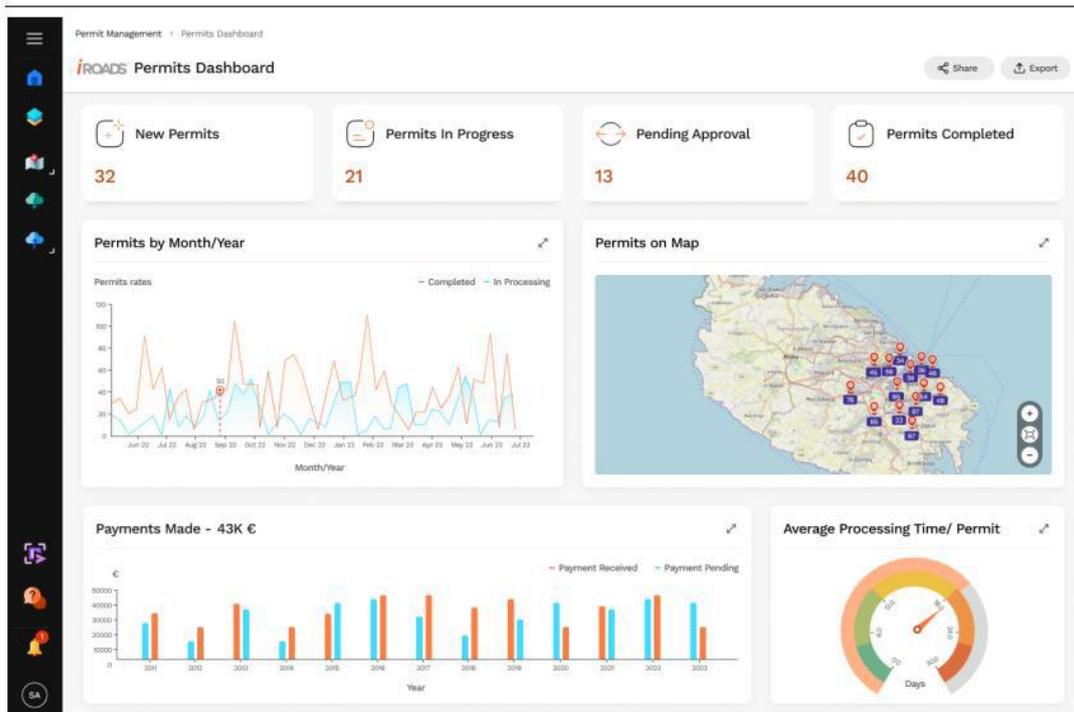
Photo 8. Temporary Traffic Management via the Road Permit System (RPS) – Dashboard

2.2.2. Progress since 2023

<u>Description of progress in the area since 2023</u>

- ✓ **The GREENMEDPORTS Project** - Funded under the Interreg Med program and set to commence in 2025, this initiative plays a crucial role in fostering a sustainable maritime and transport ecosystem across the Mediterranean region.

Given that maritime transport facilitates 90% of global trade and contributes 12% to the world's GDP, the sector is indispensable to economic growth. However, it also presents considerable environmental challenges, particularly in the Mediterranean, one of the world's busiest and most ecologically sensitive maritime corridors. The high volume of maritime traffic, both at sea and in adjacent ports, underscores the urgent need for sustainable solutions to mitigate pollution, enhance efficiency, and promote greener shipping practices. This strategic transit corridor, linking Europe with other continents, sees high volumes of shipping activity, leading to substantial greenhouse gas (GHG) emissions and air pollution, including 13.5% of Europe's transport-related emissions and significant sulphur dioxide (SO_2) pollution.

In line with the European Commission's goal to achieve carbon neutrality by 2050 with an interim target of a 55% reduction in GHG emissions by 2030, the GREENMEDPORTS project aims to foster a green transition for Mediterranean ports. It will establish a Carbon Footprint Platform (CFP) to monitor and mitigate emissions and develop a Green Label Port certification system. These initiatives will drive collaboration among port authorities, freight forwarders, and other stakeholders, focusing on the digitization of port processes, the adoption of common emission reduction strategies, and the promotion of sustainable transport practices.

Transport Malta, as a key participant and a lead in this sub-project in the overall project, will also pilot a dedicated freight line between the Malta Freeport and the Bulebel Industrial Area. This initiative will enhance the efficiency of freight transport while ensuring environmental sustainability. The dedicated corridor will be equipped ANPR CCTV systems, enabling the enforcement of the freight lane's use through a whitelist and blacklist system. This will help regulate freight movements, ensuring compliance with designated transport routes and reducing congestion and emissions from heavy vehicles.

Through the establishment of a Transnational Cooperation Network, the GREENMEDPORTS project will bring together key stakeholders from Italy, Algeria, Egypt, Malta, Jordan, and Tunisia to develop a joint strategy for decarbonizing the Mediterranean maritime sector. The Green Label, to be tested across six port areas, is expected to attract widespread interest from various port authorities and logistics organizations.

By promoting transnational collaboration, digital innovation, and sustainable transport solutions, GREENMEDPORTS seeks to create a more resilient, efficient, and environmentally friendly maritime sector in the Mediterranean. This project represents a significant step toward reducing the environmental impact of transport while supporting economic development and sustainability across the region.

This project has a budget of €2,524,930.00 and a 36-month implementation period.

✓ **In Malta, Speed Camera Deployment** has been strategically installed on roads with historically poor safety records to mitigate speeding and enhance road safety. The implementation of these devices has led to a notable reduction in vehicle speeds and a decrease in traffic accidents within their operational zones.

As of April 2024, there are 25 fixed-speed cameras deployed across various locations in Malta. These cameras utilize radar technology to detect vehicles exceeding speed limits. Upon detecting a violation, the system captures an image of the vehicle's rear, clearly showing the license plate. This information is then transmitted in real-time to an administrative centre via wireless technology. ANPR software cross-references the captured plate with the national System VERA to identify the registered owner. Subsequently, a fine notice is generated and mailed to the owner's postal address.

In recent developments, authorities have expanded enforcement measures:

- Triq il-Kosta (Coast Road) Installations: In March 2021, four new speed cameras were approved for installation along Triq il-Kosta, a road notorious for severe accidents. These cameras are positioned on both sides of the road, with signage alerting drivers to their presence. Additional systems will be installed, including the deployment of average speed cameras. These will be strategically placed in locations where cycling is actively being promoted, supporting both road safety and sustainable mobility objectives.
- Central Link Addition: October 2023 saw the introduction of a speed camera on the Central Link Road in Attard, set with a speed limit of 60 km/h. This measure aims to address safety concerns following multiple accidents in the area.
- Handheld Speed Guns: By September 2023, police, Transport Malta, and LESA officers were trained to operate handheld speed guns. This initiative enhances speed monitoring capabilities beyond fixed camera locations, allowing for more flexible enforcement.

These advancements underscore Malta's commitment to leveraging technology in promoting safer driving behaviours and reducing traffic-related incidents.

✓ **The Management of Public Transportation** is handled by a private entity responsible for the national scheduled bus services. The service is regulated by Transport Malta. This operator maintains its own Operational Control Centre to oversee daily operations. To achieve a more integrated transport management system, plans are underway to link this control centre with the ITS platform via an Application Programming Interface (API) on the NAP. This integration has already been incorporated into the ITS tender dossiers.

Currently, Malta operates a temporary NAP, which is manually updated and accessible at https://geoservices.transport.gov.mt/egis. This platform serves as a centralized hub for transportation data, facilitating better coordination and information sharing among various stakeholders. It provides key information in line with Annexes III and IV of the relevant regulations, ensuring transparency and accessibility in transport data management.

To enhance passenger experience, the public transport operator has introduced the Tallinja App, a mobile application available for both Android and iOS devices. This app offers a range of features designed to make commuting more convenient:

- Journey Planning: Users can search and plan trips by destination, with the app generating route options tailored to individual needs.
- Real-Time Information: The app provides real-time updates on bus arrival times, allowing passengers to make informed decisions and adjust their travel arrangements accordingly.
- Service Alerts: Passengers receive timely notifications about any service disruptions or changes, helping them stay prepared and adapt their journeys as needed.
- Mobile Ticketing: The app supports the purchase of various travel offers, streamlining the ticketing process and reducing the need for physical tickets.
- Real-Time Bus Tracking: A notable feature is the ability to track buses in real-time on the map while waiting at the bus stop, minimizing uncertainty about arrival times.

These developments reflect Malta's commitment to leveraging technology to improve public transport services, aiming for a more efficient and user-friendly system. Similarly, the Inter-Harbour Ferry Services operating between the capital of Valletta and two maritime towns on both sides of the peninsula in order to promote sustainable mobility further as from 2024 has been offered free of charge and included in the Tal-Linja Card. This service was supplemented by direct and indirect European and National funds in the building of two ITS-enabled terminals and further upgrades in this regard are expected over the short term.

- ✓ **Transport Malta's Geographic Information System (GIS) Platform** serves as a centralized hub for geospatial resources, enabling the discovery, visualization, and access to comprehensive land, air, and sea transport data. This integration facilitates streamlined processes and informed decision-making across various transport sectors.

To enhance its GIS capabilities, Transport Malta entered into a government-wide agreement with Esri, a global leader in GIS technology. This collaboration, coordinated by the Malta Information Technology Agency (MITA), provides flexible access to the latest GIS tools and services, supporting both current and future geospatial initiatives.

Through Memoranda of Understanding, Transport Malta collaborates with various government entities to share geospatial data, ensuring datasets remain current and accurate. For instance, Infrastructure Malta utilizes the GIS Platform to monitor marine and road maintenance projects, while the Ministry for Environment, Energy, and Enterprise manages the charging pillars network through this system.

A significant upcoming enhancement is the migration of the GIS Platform's infrastructure to a cloud-based architecture. This transition aims to improve digital business operations, with the Hydrographic Office's data management serving as an initial pilot project for this upgrade.

In the realm of traffic management, over 90% of Malta's traffic light-controlled junctions operate in an actuated mode, using inductive loops to adjust signal timings based on real-time traffic flow. To further optimize traffic systems, Transport Malta is developing a Common Communication Layer. This initiative aims to centralize the management of traffic lights, CCTVs, and VMS through a unified platform, enhancing interoperability and control.

Additionally, the GIS Platform https://geoservices.transport.gov.mt/egis integrates with the Road Permitting System (RPS) to visualize road closures and works on a dynamic map. This feature provides real-time updates to the public and stakeholders, improving transparency and coordination in road management.

Collectively, these advancements underscore Transport Malta's commitment to leveraging cutting-edge GIS technology to enhance transportation infrastructure and services across the Maltese Islands.

- ✓ **TM Alert Platform is Malta's official real-time traffic alert and road safety platform**, operated by Transport Malta. It is designed to provide timely, accurate, and accessible information to the public and stakeholders regarding traffic disruptions, road works, accidents, and other mobility-related developments across the Maltese Islands. As an integral component of Malta's ITS strategy, Transport Malta Alert aligns with EU regulations, particularly Annex III and Annex IV, supporting the dissemination of transport-related information. Its core objectives include enhancing road safety, reducing congestion, supporting emergency response, increasing public awareness, and enabling data-driven planning.
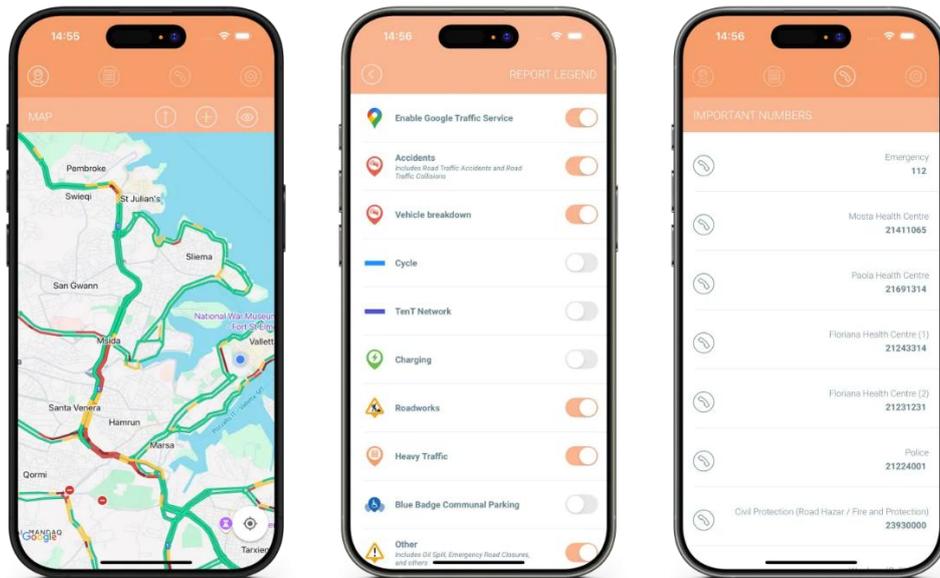
Photo 9. TM Alert App

The platform delivers real-time updates on traffic incidents, road closures, scheduled works, weather-related disruptions, special events, and emergency alerts. This information is disseminated via Transport Malta Alert website, mobile applications, roadside VMS, and social media platforms. Transport Malta Alert's effectiveness is driven by integration with other Transport Malta systems, such as TMACS, ANPR cameras, CCTV feeds, weather monitoring tools, and incident reporting mechanisms. As indicated in Fig. 1 hereunder, these systems feed live data into Transport Malta Alert, enabling rapid alert generation and validation.

Architecturally, Transport Malta Alert is built on a modular, scalable framework comprising several layers: the Data Collection Layer connects to IoT devices and legacy systems; the Integration Layer ensures smooth data exchange through API-driven middleware; the Processing and Analytics Layer validates, prioritizes, and categorizes alerts; the Distribution Layer publishes updates across multiple channels; and the Monitoring and Audit Layer tracks system performance and supports compliance reporting.

TM Alert plays a vital role in Malta's smart mobility ecosystem by enhancing transparency, improving traffic efficiency, and supporting real-time public communication. Its comprehensive integration with ITS infrastructure ensures alignment with both national objectives and EU regulatory requirements.

Figure 4 – Transport Malta Alert System Architecture

2.3. **Priority area III. Road safety and security ITS services**

2.3.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

- ✓ **In Malta, Speed Limit Enforcement** has been operational for several years and is managed by a public entity, Local Enforcement System Agency (LESA). The system utilizes radar technology with Doppler effect to detect vehicles exceeding speed limits. Captured images of offending vehicles, including their registration plates, are transmitted in real-time to a control centre for processing. The data is cross-referenced with the national VERA, and corresponding penalties are issued and mailed to the registered vehicle owners. Plans are underway to integrate this enforcement system with Malta's (ITS) platform to enhance efficiency and data sharing.

Regarding electronic payment systems, Malta has made significant advancements, particularly in public transportation. The national bus service offers the personalized 'tallinja' card, a contactless smart card that provides access to scheduled public bus and ferry transport.

As part of the ongoing development of the ITS platform, efforts are being made to integrate various transport management operations, including electronic payment systems, to create a more cohesive and efficient transportation network.

Transport enforcement in Malta involves multiple entities dedicated to maintaining law and order and enhancing road safety. These include the police, private operators conducting ANPR camera operations for Local Councils, LESA, and Transport Malta. The integration of these systems and authorities into the ITS platform aims to improve coordination and effectiveness in managing the transportation infrastructure and enforcing regulations.

In compliance with the European Union's Directive 2010/40/EU, Malta integrated eCall functionalities into its 112-emergency response system. This initiative aligns with the EU's mandate that, from March 31, 2018, all new car models must be equipped with eCall technology, designed to automatically notify emergency services in the event of a serious road accident.

The system transmits essential data, including the vehicle's location, to facilitate prompt assistance. Malta's adherence to this Directive ensures that motorists receive rapid emergency response, thereby enhancing road safety nationwide.

2.3.2. Progress since 2023

Description of progress in the area since 2023

With regard to speed enforcement and road safety, Transport Malta remains committed to continuous improvement through the strategic installation of new speed cameras, particularly in zones identified as having a high incidence of traffic accidents. This proactive approach also includes the deployment of speed cameras on newly completed infrastructure projects, ensuring that safety measures are in place from the outset.

The current list of operational speed cameras in Malta is as follows:

There are twenty-five (25) Malta road speed cameras located in various areas.
The speed limit varies according to location.
40Km/hr
St. Paul Street Naxxar
50Km/hr
Attard Road close to Cemetery
60Km/hr
Maghtab going to St. Julian's
Regional road Tunnels going to Paceville
Paceville going to Regional road Tunnels
Mdina Road Qormi – located near Kia Showroom
Mdina Road Qormi - Located near BDI Showroom
Tal-Barrani road – Zejtun going to Tarxien
Tal-Barrani road – Tarxien going to Zejtun
Birkirkara Bypass to Mater Dei Hospital
Birkirkara Bypass to Birkirkara
Siggiewi - Zebbug round about to Siggiewi bypass
Central Link - Towards Rabat
70Km/hr
Rabat going to Zebbug
Zebbug going to Rabat
Coast Road to Bugibba
Burmarrad going to Mosta
Airport to Hal Far - same camera both ways
Bahar Ic-Caghaq to Bugibba
Coast Road going to St. Paul's Bay & St. Julian's
Ghallis Tower going to St. Julian's
80Km/hr
Mriehel Bypass going to Attard
Mriehel Bypass going to Valletta
St. Paul's Bay Bypass going to Mellieha
St. Paul's Bay Bypass going to Bugibba

Table 1.

✓ Another important initiative is the C-SAM (Connected Sustainable Active Mobility) Project, which aims to promote sustainable urban mobility and enhanced road safety through the development of active mobility infrastructure and the deployment of intelligent transport systems (ITS). By adopting an integrated, multimodal approach, the project seeks to improve transport efficiency, connectivity, and most critically, safety across Malta's national transport network.

The C-SAM project focuses on creating safe, direct, and continuous active mobility routes—particularly within the Northern Harbour and Southern Harbour regions—to make walking and cycling safer and more

attractive alternatives to car travel. Planned investments include the construction of dedicated pedestrian pathways, segregated cycle lanes, and bridges designed to improve safe connectivity between urban areas and facilitate access to new and enhanced public open spaces. In addition to physical infrastructure, the project involves the deployment of ITS assets, including CCTV surveillance systems and Variable Message Signs (VMS), which will support real-time traffic management, promote multi-modality, and enhance road user awareness. These tools will play a key role in preventing accidents, improving incident detection, and delivering timely safety messages to road users.

The project is being implemented in collaboration with Infrastructure Malta, the national authority responsible for road development. Upon completion, Infrastructure Malta will deliver a safe and inclusive mobility network that supports active travel options while ensuring that road safety remains a top priority. Crucially, the infrastructure will reconnect urban zones such as Marsa, Hamrun, and Pietà, which have long been divided by major arterial roads like Triq Dicembru 13. The new routes will provide safe, accessible links between communities, reducing reliance on private vehicles and enabling residents to move safely and comfortably between towns.

The C-SAM project is co-financed under the EU's ERDF/CF/JTF Programme, underscoring Malta's alignment with European priorities on climate action, urban resilience, and road safety. Beyond improving mobility, the project will deliver tangible environmental and public health benefits. By encouraging walking and cycling, it supports emission reduction targets while promoting physical activity and mental well-being—key pillars in building safer, healthier, and more sustainable communities.

Component 2 of this initiative focuses on the strategic deployment of Intelligent Transport Systems (ITS) to enhance the overall performance of Malta's transport network. ITS technologies harness real-time data, automation, and advanced analytics to optimise traffic flow, improve road safety, and reduce the environmental footprint of transport activity.

The deployment of additional ITS infrastructure along targeted sections of the national road network is expected to yield significant improvements in traffic efficiency, particularly through the delivery of real-time information that supports multimodal journey planning, dynamic traffic management, and the better coordination of public transport operations.

Importantly, these ITS upgrades will be implemented in conjunction with the physical road interventions proposed within this project, creating a synergistic effect that enhances both infrastructure performance and user experience. The integration of smart systems will contribute to making the new infrastructure safer and more appealing, especially for users opting for active mobility modes, such as cycling and walking. This is expected to support a modal shift away from private car use, aligning with national and EU sustainability targets.

In addition, the deployment of the ITS Platform, along with the expansion of ITS assets, will greatly enhance Transport Malta's enforcement capabilities. These technologies will enable quicker response times to incidents and dynamic traffic events, while also improving the ability to monitor compliance with traffic regulations in a more automated and resource-efficient manner.

Beyond improved safety and coordination, the ITS rollout will address persistent traffic bottlenecks, particularly in high-congestion zones. By replacing manual enforcement and on-the-ground traffic control with intelligent, automated systems, the project will support more responsive, efficient, and consistent traffic management. Road safety remains a key pillar of this initiative. A suite of ITS components will be introduced specifically to improve safety for all road users, with an emphasis on vulnerable groups such as cyclists and pedestrians. These include:

- Cycle Warning Signs – Alerting drivers to the presence of cyclists ahead, particularly in shared road environments.

- Smart Totems – Providing real-time travel data and journey planning tools at key locations to promote informed mobility choices.

- CCTV Cameras – Supporting continuous monitoring, incident detection, and enforcement in high-risk areas.

- Speed Limit Signs – Digital signage to reinforce appropriate driving speeds based on real-time traffic conditions.

- Variable Message Signs (VMS) – Delivering dynamic, location-specific alerts and guidance to road users.

Together, these measures will contribute to a more connected, safer, and environmentally sustainable transport system, helping Malta meet its national mobility goals while fulfilling its obligations under the EU ITS Directive.

2.3.3. 112 eCall (priority action d – Delegated Regulation (EU) No 305/2013)

Information on any changes regarding the national eCall PSAPs infrastructure and the authorities that are competent for assessing the conformity of the operations of the eCall PSAPs: Additional information:

The eCall requirements, as mandated by the relevant EU Directive, have been fully integrated into the national 112 emergency response system since April 2018, ensuring compliance with the established regulatory framework. Should any further updates or modifications to the system be required in the future, these will be assessed and implemented accordingly to maintain full alignment with evolving EU standards.

In parallel, Vehicle Roadworthiness Testing (VRT) stations in Malta are preparing to begin testing eCall functionality as part of the vehicle inspection process. The initial phase of testing has already commenced, and preliminary results are expected by 2026. This marks an important step in extending the operational readiness and reliability of eCall systems across the national vehicle fleet.

The Malta Police Force currently oversees the management and coordination of the eCall system, ensuring its proper integration with emergency services and operational continuity.

2.3.4. Reporting obligation under Delegated Regulation (EU) No 886/2013 on data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users (priority action c)

Progress made in implementing the information service, including the criteria used to define its level of quality and the means used to monitor its quality:

Results of the assessment of compliance with the requirements set out in Articles 3 to 8 of Delegated Regulation (EU) No 886/2013:

Where relevant, a description of changes to the national access point:

Additional information (e.g. sources of data used for the provision of safety-related traffic information):

Malta will be in a position to provide a comprehensive update on this matter next year, as the implementation of the new National Access Point (NAP) begins to yield tangible results.

2.3.5 Reporting obligation under Delegated Regulation (EU) No 885/2013 on the provision of information services for safe and secure parking places for trucks and commercial vehicles (priority action e)

Malta will not be implementing this Delegated Regulation, as the country is formally exempted from its application. This exemption reflects Malta's unique geographic and operational context, where no designated parking facilities for trucks currently exist, nor are they deemed necessary.

Given the short distances typically travelled by heavy goods vehicles (HGVs) within the island and the absence of transit or through-traffic, Malta does not face the same logistical demands as mainland EU member states. As an island nation, Malta is not part of any international road freight corridors, further justifying the exemption from this regulation.

Number of different parking places and parking spaces on their territory:

Not applicable for Malta as per note above

Percentage of parking places registered in the information service:

Not applicable for Malta as per note above

Percentage of parking places providing dynamic information on the availability of parking spaces and the priority zones:

Not applicable for Malta as per note above

2.4. **Priority area IV. ITS services for cooperative, connected and automated mobility**

2.4.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status: in particular, provide information on the C-ITS deployment initiatives and their technical specifications.

N.B. As indicated in the previous report (2023), Malta reported that an ITS tender had been drafted and was pending publication. This tender was subsequently published, and a bidder was selected through the standard procurement process. However, Transport Malta encountered a series of legal challenges involving the selected bidder, which ultimately halted progress in this area and delayed the implementation of the planned ITS platform.

✓ **As part of its commitment to advancing ITS in line with the ITS Action Plan**, Transport Malta is actively working towards the integration of road-based transport systems to enhance the safety, efficiency, and sustainability of the transport network. A key initiative in this effort is the development of an Intelligent Transport Management System (ITMS) Platform, which will serve as a crucial technological enabler for optimizing transport operations.

This initiative aligns with the broader objective of leveraging digital technologies and real-time information services to streamline mobility, improve traffic management, and support data-driven decision-making. By fostering a seamless exchange of transport-related data, the project also aims to encourage a modal shift toward lower-emission transport solutions, contributing to Malta's sustainability goals.

A fundamental component of this project is the establishment of Malta's NAP, which will act as a centralized hub for transport data. The ITMS Platform is being designed to integrate and interact with existing Intelligent Transport Systems, including traffic control measures, real-time travel information services, and other digital mobility solutions. Furthermore, the system is being developed with future scalability in mind, ensuring its ability to accommodate upcoming technologies and services that may be deployed in alignment with the National Transport Strategy and Transport Master Plan.

At its core, the ITMS Platform will establish a robust communication and data-sharing framework, enabling more efficient coordination among transport stakeholders. Looking ahead, the platform will lay the groundwork for advanced computational analysis and automated decision support mechanisms. By harnessing Artificial Intelligence (AI), Transport Malta envisions a system capable of simulating, predicting, and optimizing traffic management operations in a multi-modal transport environment. This technological evolution will pave the way for a more responsive, intelligent, and environmentally sustainable transport system in Malta.

This initiative reflects Transport Malta's strategic vision of using cutting-edge digital solutions to enhance transport efficiency, improve road safety, and support a greener, more connected mobility ecosystem.

Scope and Objectives of the ITS Deployment Phase

As part of Transport Malta's ongoing efforts to enhance ITS in alignment with its ITS Action Plan, the current deployment phase focuses on two key objectives:

1. Deployment of the Common Communication Layer

As part of Phase 2 of the ITS Action Plan, Malta successfully launched its second platform in 2023, marking a significant milestone in the country's transition toward a fully integrated and intelligent transport network. A key focus of this phase was the development of a Common Communication Layer, designed to enhance interoperability and seamless integration across two important systems such as Traffic lights and VMSs. By standardizing data exchange and improving coordination between different ITS components, this initiative has significantly strengthened the efficiency, responsiveness, and adaptability of Malta's intelligent transport infrastructure.

A central element of this is the Third phase, the implementation of the ITMS Platform, which is designed to unify various operational systems under a single framework, ensuring real-time coordination between traffic monitoring, public transport services, and road network management. The primary objective of the ITMS is to reduce road congestion while improving overall transport efficiency. By facilitating real-time access to public transport information, the platform aims to enhance the reliability and attractiveness of alternative mobility options, encouraging a modal shift from private vehicle use to more sustainable transport modes such as public transit, cycling, and walking. This transition is expected to result in lowering GHG emissions, reducing traffic congestion, and improve urban air quality, aligning with Malta's broader sustainability and environmental goals.

Looking ahead, this deployment is part of a long-term strategy outlined in Transport Malta's ITS Action Plan for the next 10 years, which envisions the gradual scaling up of intelligent transport solutions. Over the coming decade, all past and ongoing ITS projects will be systematically integrated into a single, unified ITS platform, creating a fully interconnected and data-driven mobility ecosystem. This integration will allow for greater automation, predictive analytics, and real-time traffic optimization, ensuring that Malta remains at the forefront of smart transport innovation in Europe.

By leveraging advanced technology, data analytics, and intelligent mobility solutions, Transport Malta is laying the foundation for a transport network that is not only more efficient and responsive but also more sustainable and resilient in the face of evolving urban mobility challenges.

To support these objectives, the ITMS Platform will incorporate a wide range of real-time and static datasets, including:

- Automatic Vehicle Location (AVL) data from buses and taxis.
- Traffic management infrastructure data, such as traffic light controllers, VMS, CCTV, and ANPR systems.
- Road works information from GIS platforms.
- Data integration with the Malta Public Transport (MPT) Journey Planner for enhanced route optimization.

Additionally, the system is designed to support future integrations through open APIs, enabling seamless incorporation of new mobility data sources such as:

- Parking availability data
- EV charging station locations
- Additional AVL data from cab services

By consolidating these datasets into a single intelligent mobility platform, the ITMS will significantly improve transport monitoring, real-time decision-making, and the coordination of mobility services, leading to a more efficient and responsive transport network.

2. Support for the Implementation of EU ITS Delegated Regulations

In addition to improving transport operations, this ITS deployment phase also aligns with Directive 2010/40/EU, which mandates the availability and accuracy of infrastructure, safety, traffic, and travel-related data. Transport Malta is ensuring compliance with key Delegated Regulations by making this information accessible to transport authorities, mobility service providers, and end-users via Malta's NAP.

The implementation will particularly focus on:

- Regulation 886/2013 – Facilitating access to road safety-related information
- Regulation 2015/962 – Providing real-time traffic and travel information services
- Regulation 2017/1926 – Ensuring the availability of multimodal travel information services

As these regulations evolve, the ITMS Platform will be designed to adapt and integrate future amendments while maintaining compliance with European ITS frameworks.

Through the ITMS Platform, Transport Malta is making significant strides in modernizing its transport infrastructure by leveraging digitalization, real-time data integration, and intelligent mobility management. This deployment phase not only enhances operational efficiency and environmental sustainability but also ensures that Malta's transport ecosystem remains aligned with EU ITS regulations, paving the way for a more connected and technologically advanced transport system.

The basic lay out of this approach is presented in the following figure.
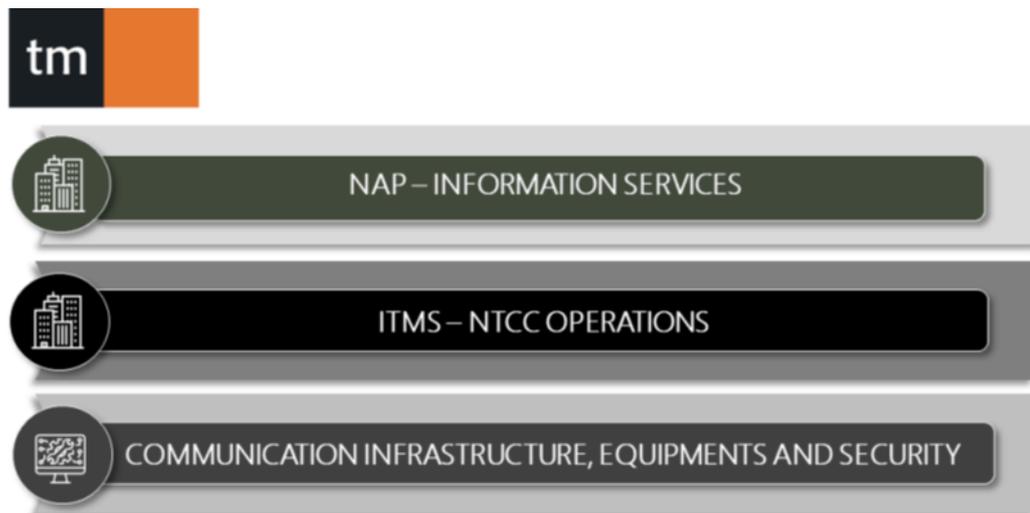
Figure 5. ITMS Structure

As part of Transport Malta's ITS Action Plan, the ITMS Platform is structured around a logical architecture designed to optimize transport operations through data integration, advanced analytics, and multi-modal traffic management.

- Infrastructure & Connectivity Layer: The foundation of the system includes traffic management equipment, sensors, and telematics systems, ensuring real-time data exchange on operational status.
- Data Processing Layer: Incoming raw data is processed through a Common Communications Layer, where it undergoes validation, cleansing, enrichment, and fusion to generate reliable transport insights.
- Operational Layer: The ITMS Platform forms the core of this layer, managing all telematics and traffic control systems. It supports Decision Support and Supervision Modules, which use AI and Machine Learning (ML) to simulate, predict, and optimize traffic flows.
- Information Services Layer: This top layer ensures data accessibility for transport stakeholders and third-party service providers, supporting the development of Malta's NAP in line with ITS standards and EU directives.

This integrated ITS framework enhances transport efficiency, supports digital transformation, and enables data-driven decision-making for a safer, smarter, and more sustainable mobility ecosystem in Malta.
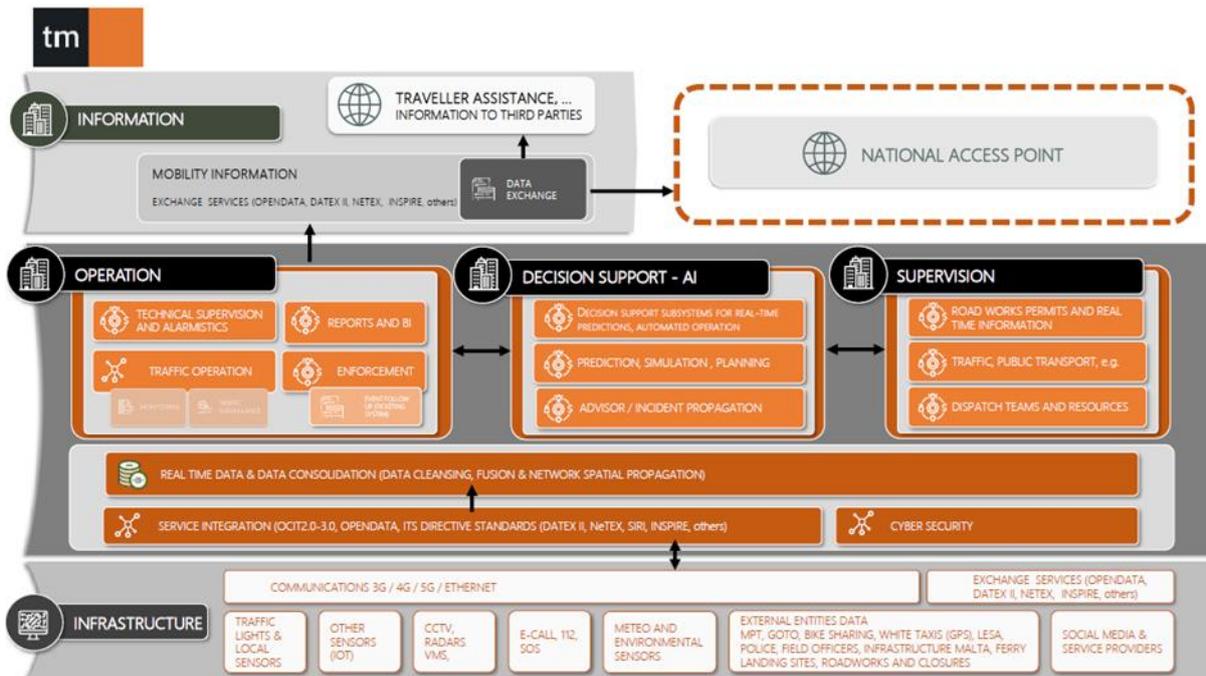
Figure 6. ITS Architecture

Transport Malta's Next Steps: C-ITS Deployment

Following the completion of Phase 2 of its ITS Action Plan, which involved the installation of the ITS Platform and its associated sub-systems, Transport Malta is now shifting its focus towards Cooperative Intelligent Transport Systems (C-ITS). As part of this initiative, Transport Malta will first conduct a C-ITS and Connected, Cooperative, and Automated Mobility (CCAM) study through its participation in NEXTRIDE, a project co-financed under the INTERREG Euro-Med Programme. This study will assess the feasibility and impact of C-ITS technologies on Malta's transport ecosystem. Additionally, Transport Malta will begin piloting C-ITS use cases, focusing on smart traffic light systems and emergency vehicle prioritization, contributing to enhancing traffic efficiency, safety, and multimodal integration. These efforts will mark a significant step toward future-ready, connected, and automated mobility solutions in Malta.

Transport Malta's Participation in the NEXTRIDE Project

Transport Malta is actively participating in the NEXTRIDE project, a collaborative initiative under the INTERREG Europe Programme (Project ID: 03C0900), aligned with Policy Objective 3 – A More Connected Europe. This project focuses on improving mobility across Europe by facilitating the integration of CCAM into future public transport policies.

Addressing Challenges in Public Transport Through CCAM

Public transport PT systems across Europe's functional urban areas face significant challenges, including traffic congestion, staff shortages, road safety concerns, and high operational costs. CCAM technologies present a transformative opportunity to address these issues by making public transport more accessible, cost-efficient, and appealing, thereby reducing dependence on private cars and promoting sustainable mobility.

However, many Transport Authorities lack the necessary resources, expertise, and flexibility to effectively plan for the integration of CCAM solutions into their transport networks. The long innovation cycles of public transport service contracts (often exceeding 10 years) create technological inertia, preventing the timely adoption of emerging mobility solutions. Without appropriate policies and regulatory frameworks, CCAM risks being integrated uncontrollably by private entities, potentially exacerbating congestion, safety concerns, and unequal access to mobility services, while missing critical sustainability objectives.

How NEXTRIDE Supports CCAM Integration

The NEXTRIDE project fosters cross-border cooperation and knowledge exchange between European regions to develop strategies for seamless CCAM integration into public transport policies. It brings together expertise from countries with advanced CCAM planning, such as Belgium, the Netherlands, and Germany, and shares best practices with emerging adopters in Eastern and Southern Europe, including Romania, Malta, Slovenia, and Ukraine.

- Western and Northern EU regions (BE, NL, DE) have developed ambitious visions for CCAM but face long policy cycles that slow the implementation of transport innovations.
- Eastern and Southern EU regions (RO, MT, SL, UA) will benefit from this expertise, adapting successful strategies to enhance their transport planning and policy frameworks.

Transport Malta's Role in NEXTRIDE

As part of its ITS Action Plan, Transport Malta is leveraging NEXTRIDE to strengthen its approach to CCAM integration. By engaging in knowledge-sharing and policy development, Transport Malta aims to:

1. Enhance its public transport framework by incorporating CCAM best practices.
2. Support the procurement and deployment of CCAM technologies, ensuring seamless integration into Malta's transport ecosystem.
3. Pilot key CCAM use cases, such as smart traffic light systems and emergency vehicle prioritization, improving traffic efficiency and road safety.

With many EU Transport Authorities currently revising their policies and service contracts for the next period (starting in 2028), NEXTRIDE offers a timely opportunity to align Malta's transport policies with the anticipated large-scale deployment of CCAM by 2030. Transport Malta's participation in this project will help future-proof the island's mobility infrastructure, ensuring that CCAM contributes to a more efficient, accessible, and sustainable transport system.

Transport Malta's Strategic Benefits from the NEXTRIDE Project

Transport Malta's participation in the NEXTRIDE project presents a valuable opportunity to enhance its expertise in CCAM through interregional collaboration. By working closely with EU Transport Authorities, Transport Malta will gain access to cutting-edge knowledge and best practices, essential for shaping future transport projects under the National Transport Strategy 2050 (NTS 2050). Learning from the experiences of leading European regions will allow Transport Malta to avoid common pitfalls, accelerating the adoption of CCAM while ensuring a smooth and efficient deployment.

Through joint initiatives and EU funding support, Transport Malta will be able to upgrade its transport infrastructure, integrating smart road systems and advanced communication networks to improve overall efficiency and safety. As a learning partner in NEXTRIDE, Transport Malta will not only focus on implementing innovative transport solutions but also benefit from the collective experience of its European counterparts, keeping pace with rapid technological advancements and aligning with long-term sustainability goals.

Beyond infrastructure, Transport Malta will also play a key role in raising awareness and fostering public trust in CCAM technologies. By sharing insights and promoting the benefits of CAM, it will ensure greater stakeholder engagement and a smoother transition toward a more sustainable, efficient, and future-ready transport system. Through this collaboration, Transport Malta positions itself at the forefront of smart mobility innovation, reinforcing its commitment to modernizing Malta's transport landscape in line with European best practices.

- ✓ **NAPCORE Project**

As part of participation in this project Malta is benefitting from NAPCORE's mission to improve the interoperability of mobility data through the harmonization and alignment of mobility data standards, ensuring a seamless exchange of transport-related information across Member States. Through Transport Malta's

participation in NAPCORE, Transport Malta aims to increase availability and streamline access to mobility-related data, thereby facilitating a more cohesive and efficient European transport ecosystem.

NAPCORE will empower NAPs and National Bodies such as Transport Malta by defining and implementing common procedures and strategic frameworks. This effort reinforces the role of Transport Malta as NAP, strengthens our operational capacity, and supports the development of European-wide solutions to optimize the use and exchange of EU-wide mobility data.

Currently, 33 beneficiaries participate in NAPCORE, including Malta, which holds a follower status within the initiative. While the Programme Support Action is set to run until June 2025, the overarching goal is to establish a sustainable, long-term platform organization that will continue to support collaboration, consultation, and innovation in European mobility data exchange well beyond the current timeframe.

Current Short-Term Initiatives Planned

✓ **The C-SAM Project**

Transport Malta (TM), in collaboration with Infrastructure Malta, is spearheading a new infrastructural project aimed at promoting sustainable mobility by prioritizing cycling and walking along some of the busiest sections of the national road network. This initiative will introduce dedicated cycling lanes and footbridges, enhancing safety and accessibility for pedestrians and cyclists while fostering a shift towards greener, more sustainable transport modes.

A key component of this project is a substantial investment in ITS infrastructure, designed to prioritize these active mobility modes, provide real-time information to users, and significantly enhance road safety. The project will integrate advanced technologies, including additional CCTV units, VMS, Bicycle Prioritization Signal Heads, and on-street totems displaying real-time data. These systems will not only improve traffic flow but also empower cyclists and pedestrians with timely and relevant information, reinforcing Malta's commitment to smarter, safer, and more sustainable urban mobility.

✓ **Setting up a new National Traffic Control Centre**

Over the past few years, Transport Malta has made significant investments in the development of a state-of-the-art NTCC, a pivotal step towards enhancing traffic management operations across the country. This cutting-edge facility will serve as the central hub for real-time traffic monitoring, incident management, and the optimization of Malta's transport network through advanced technology and data-driven solutions.

The NTCC is set to be officially launched in late 2025, as Transport Malta is currently in the process of procuring an ITS Platform. This platform will serve as the backbone of the NTCC, seamlessly integrating and interfacing all sub-systems to ensure a cohesive and efficient traffic management framework. The facility itself is housed within a newly refurbished historic building, blending modern technological infrastructure with architectural heritage. To date, the majority of the essential hardware and furnishings have been installed, laying the groundwork for full operational readiness.

The new NTCC will complement the existing Traffic Control Centre at A3 Towers in Paola, which will undergo a functional transformation into an asset dispatch hub for Transport Malta's Enforcement Unit. Once both centres are fully operational, they will be interconnected to provide mutual support, ensuring operational continuity and resilience in the event of system redundancies or emergency situations. This initiative underscores Transport Malta's commitment to leveraging technology for smarter, safer, and more efficient traffic management across Malta.

✓ **New Data Unit**

Transport Malta (TM) is in the advanced stages of establishing a Data Acquisition Unit (DAU), a dedicated division that will manage, process, and analyze the vast amounts of data collected from existing and newly deployed ITS across the road network. This unit will serve as the backbone of Malta's data-driven transport strategy, ensuring that real-time information is effectively utilized to enhance traffic flow, optimize transport planning, and improve road safety.

The DAU will not only oversee data acquisition but also spearhead the development of innovative solutions by integrating cutting-edge AI and drone technology into traffic monitoring and analysis. A specialized sub-unit is being set up to focus on these advanced tools, enabling smarter, more precise insights into transport patterns, incident detection, and infrastructure health monitoring. Drones will be used to provide aerial surveillance, particularly in emergency situations or traffic disruptions, offering a new dimension to real-time traffic management. AI-driven analytics will allow Transport Malta to predict congestion, optimize traffic signal coordination, and proactively manage road incidents, creating a more efficient and responsive mobility network.

Moreover, the DAU will house Malta's NAP, a centralized platform facilitating the exchange and accessibility of transport-related data for public and private stakeholders. By consolidating information from various sources, the NAP will enable better collaboration across transport sectors, supporting research, innovation, and the implementation of smart mobility solutions.

The DAU will also work in close synergy with the upcoming NTCC. ensuring that traffic data is not only collected but also applied effectively to improve urban mobility. This integration will provide real-time updates for road users, support public transport optimization, and contribute to long-term infrastructure planning. The unit's role will extend beyond traffic monitoring, as it will also support enforcement efforts through automated compliance monitoring, as well as contribute to environmental sustainability by assessing traffic-related emissions and promoting greener mobility solutions.

Through the establishment of the DAU, Transport Malta is embracing a data-centric approach to traffic management, positioning Malta at the forefront of intelligent transport innovation. By harnessing real-time analytics, AI, and drone technology, this unit will drive a smarter, safer, and more sustainable transport ecosystem, ultimately enhancing mobility for all road users.
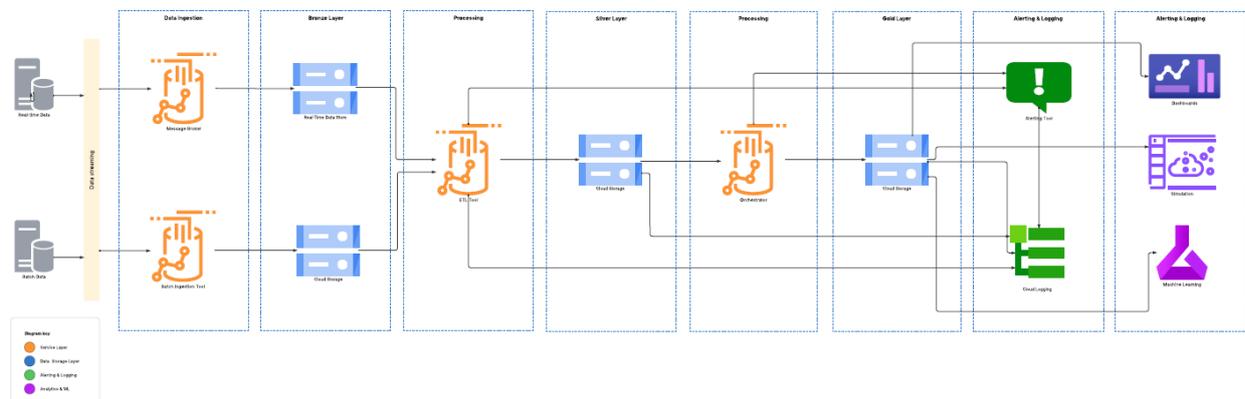
Figure 7. High-Level Architecture Diagram - DAU

Objectives

- Data Acquisition Unit: Build a central unit which contains all data from an unprocessed stage to a transformed stage for analytical purposes.

- Real-Time Monitoring & Alerts: Automate notifications based on incoming data.

- Optimised Routing & Response: Predict optimal routes dynamically.

- Historical Data Analysis: Identify high-traffic or high-activity areas based on trends.

- Data Visualisation & Analytics: Creation of dashboards and analytics.

- Simulations for Future Planning & Predictions: Forecast the impact of environmental or infrastructure changes.

2.4.2. Progress since 2023

Description of progress in the area since [year of previous report]:

Considerable progress has been mentioned in 2.4.1

2.5 Availability and accessibility via NAP of data types listed in Annex III to Directive 2010/40/EU

Data type	Geographical coverage	% of geographical scope where data type is available		Comments
1. Data relating to the provision of EU-wide road traffic information and navigation services:				
1.1 Category: Static and dynamic traffic regulations, where applicable, concerning:				
1.1.1 Subcategory: — access conditions for tunnels — access conditions for bridges — speed limits — overtaking bans on heavy goods vehicles — weight/length/width/height restrictions	The trans-European *core* network for roads	access conditions for tunnels*	*%* *[Note: if more relevant, possibility to provide the number and % of tunnels]*	This is not applicable at this stage; however, it will become relevant once the new National Access Point (NAP) begins receiving data
		access conditions for bridges*	*%* *[Note: if more relevant, possibility to provide the number and % of bridges]*	Same as above
		speed limits*	*66 %*	
		overtaking bans on heavy goods vehicles*	*%*	Same as above
		weight/length/width/height restrictions*	*0 %*	
	The comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)	access conditions for tunnels*	*%*	Same as above
		access conditions for bridges*	*%*	Same as above
		speed limits*	*66 %*	
		overtaking bans on heavy goods vehicles*	*%*	Same as above
		weight/length/width/height restrictions*	*%*	Same as above

Subcategory: — one-way streets	*Road infrastructure in the cities at the centre of each Urban Node*	one-way streets*	*66 %* *[Note: if relevant, possibility to also provide in addition the number and % of cities able to supply such data]*	
Subcategory: — freight delivery regulations	*Road infrastructure in the cities at the centre of each Urban Node*	freight delivery regulations*	*%* *[Note: if relevant, possibility to also provide in addition the number and % of cities able to supply such data]*	Unknown
Subcategory: — direction of travel on reversable lanes	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	direction of travel on reversable lanes*	*Greater than 66 %*	
Subcategory: — traffic circulations plans	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	traffic circulations plans*	*Greater than 66 %* *[Note: if the network length is impossible to calculate, possibility to provide the number and % of traffic circulation plans]*	
Subcategory: — permanent access restrictions	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	permanent access restrictions*	*Greater than 66 %*	

| Subcategory: — boundaries of restrictions, prohibitions or obligations with zonal validity, current access status and conditions for circulation in regulated traffic zones | *The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)* | boundaries of restrictions, prohibitions or obligations with zonal validity, current access status and conditions for circulation in regulated traffic zones* | *Greater than 66 %* *[Note: if the network length is impossible to calculate, possibility to provide the number and % of boundaries of restrictions, prohibitions, etc.]* | |

2.5.1. Data relating to the provision of EU-wide road traffic information and navigation services

1.2 Types of data on the state of the network:				
Subcategory: — road closures — lane closures — roadworks	*The trans-European core network for roads*	road closures**	*Greater than 66 %*	
		lane closures**	*Greater than 66 %*	
		roadworks**	*Greater than 66 %*	
	The comprehensive trans-European network for roads	road closures**	*Greater than 66 %*	
		lane closures**	*Greater than 66 %*	
		roadworks**	*Greater than 66 %*	
Subcategory: — temporary traffic management measures	*The trans-European core and comprehensive network for roads*	temporary traffic management measures**	*Greater than 66 %*	

2.5.2   Data relating to information and reservation services for safe and secure parking places for trucks and commercial vehicles

Data type	Geographical coverage	% of parking places for which data are available		Comments
2. Data relating to information and reservation services for safe and secure parking places for trucks and commercial vehicles:				
Category: static data *Subcategory:* — static data related to the parking areas — information on safety and equipment of the parking area	*The trans-European core network for roads*	static data related to the parking areas	*33 – 66 %*	
		information on safety and equipment of the parking area	*%*	Unknown
	The comprehensive trans-European network for roads	static data related to the parking areas	*33 – 66 %*	
		information on safety and equipment of the parking area	*%*	Unknown
Category: dynamic data *Subcategory:* — dynamic data on availability of parking places including whether a parking is: full, closed or number of free places which are available.	*The trans-European core and comprehensive network for roads*	dynamic data on availability of parking places including whether a parking is: full, closed or number of free places which are available.	*0 %*	

2.5.3 **Data on detected road safety-related events or conditions relating to road safety-related minimum universal traffic information**

Data type	Geographical coverage	% of geographical scope where data type is available		Comments
3. *Data on detected road safety-related events or conditions relating to road-safety-related minimum universal traffic information:*				
Category: dynamic data *Subcategory:* — temporary slippery road — animal, people, obstacles, debris on the road — unprotected accident area — short-term roadworks — wrong-way driver — unmanaged blockage of a road	*The core and comprehensive trans-European network for roads and other motorways not included in that network*	temporary slippery road**	*Greater than 66 %*	
		animal, people, obstacles, debris on the road**	*Greater than 66 %*	
		unprotected accident area**	*Greater than 66 %*	
		short-term road works**	*Greater than 66 %*	
		wrong-way driver**	*Greater than 66 %*	
		unmanaged blockage of a road**	*Greater than 66 %*	
Subcategory: — reduced visibility — exceptional weather conditions	*The core and comprehensive trans-European network for roads and other motorways not included in that network*	reduced visibility**	*Greater than 66 %*	
		exceptional weather conditions**	*Greater than 66 %*	

2.5.4 Static multimodal traffic data for EU-wide multimodal travel information services

*** *Where possible, provide figures per scheduled transport mode, referred to in the Annex to Delegated Regulation (EU) 2017/1926 (such as air, rail including high-speed rail, conventional rail, light rail, cableways, long-distance coach, maritime including ferry, inland waterways, metro, tram, bus, trolley-bus)*

Data type	Geographical coverage	% of nodes where data are available for the scheduled transport mode		Comments
4. *Static multimodal traffic data for EU-wide multimodal travel information services:*				
Category Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)	*Urban nodes as defined in Article 3, point (p), of Regulation (EU) No 1315/2013 and listed in that Regulation, including those administered by the cities*	Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)***	%	This is not applicable at this stage / but it will be once the New NAP starts receiving data
	The entire transport network of the Union	Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)***	%	This is not applicable at this stage / but it will be once the New NAP starts receiving data

N.B. This data is provided in line with the NAPCORE guidelines on crucial data types (Directive 2023/2661).

2.6. Availability of services listed in Annex IV to Directive 2010/40/EU

2.6.1. Road safety-related minimum universal traffic information services

Service	Geographical coverage	% geographical scope covered
Road safety-related minimum universal traffic information (SRTI) service	The *core and comprehensive* trans-European network for roads	n/a

2.7. Other initiatives / highlights

2.7.1. Description of other national initiatives / highlights and projects not covered in priority areas 1 to 4:

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

In late 2024, the Sustainable Mobility, ITS, and Research and Innovation Unit within Transport Malta began drafting a comprehensive policy document and action plan titled *"The Right to Move: Preparing the Country for a 24-Hour Economy."* This initiative was conceived primarily to address traffic congestion during peak hours, proposing a strategic shift in how mobility is managed and coordinated across the country.

The document outlines 75 measures, supported by a series of pilot projects, and is structured to provide both strategic direction and actionable outcomes. Each proposed measure is categorised not only by thematic area but also by the anticipated implementation timeline, namely: short to medium term and medium to long term. Additionally, all actions are further structured based on the nature and type of the measure—ensuring clarity, coherence, and ease of implementation

Targeted Measures and Actions

The measures and actions are grouped under seven key target areas, with a dedicated focus on improving logistics, reducing congestion, and enabling a smoother transition to a round-the-clock economic framework. One of the core target areas includes Logistics-Related Measures, which seek to optimise the movement of goods and services, especially during off-peak hours, to reduce pressure on the transport network.

The measures and actions proposed are classified under the following target areas:

Logistics Related Measures

The Measures are classified under seven target areas as follows:

- o Freight – Cargo Transport
- o Construction Vehicles
- o Delivery of Goods and Services
- o Waste Collection
- o Everyday Commuting
- i. Public and Private Sector Initiatives
- ii. Education Sector
- o Car Parking and Car Parking Schemes
- i. On Street Carparking,
- ii. Residential Parking Schemes and
- iii. P+R Schemes
- o Supplementary Measures
- i. ITS based
- ii. Sustainable Mobility
- iii. Pedestrianisation
- iv. MAAS

With respect to the type of measure and action, these have been classified as follows
- i. Policy
- ii. Regulatory Actions
- iii. Operational - Pilot Actions
- iv. Incentives

v.   Schemes
vi.   Grants
vii.   Further Studies
viii.

Malta, being a small island with a population of 520,971 inhabiting in 320 km² can be compared to a large foreign city. In terms of vehicles, there are:

Licenced motor vehicles	342,858
Route buses	453
Private Buses and Coaches	346
Minibuses	1,563
Taxis, leased cars, self-drive and garage hire	12,131
Commercial Vehicles	55,668
Total licenced motor vehicles	413,019

Figures from National Statistics Office (NSO).

Malta's road network spans approximately 2,856 kilometres, making it one of the densest in Europe relative to its size. The island experiences two distinct peak traffic periods, which align with typical commuting times. The morning peak, which is more acute, occurs between 07:00 and 09:00, while the evening peak is more prolonged, generally stretching from 16:00 to 18:30.

The scope of this initiative is to apply ITS to alleviate traffic build-up in a practical and sustainable manner. It is acknowledged that traffic congestion cannot be entirely eliminated. However, the overarching objective of this proposal is to reduce its intensity and impact, particularly during high-demand periods. In the next ITS Action Plan, Transport Malta will prioritise targeted, decentralised measures aimed at addressing the root causes of congestion, such as improving multimodal connectivity, optimising traffic management systems, and enhancing real-time travel information for specific user groups. By taking this approach, we can avoid merely shifting congestion to different time periods and instead deliver sustainable, long-term improvements that benefit all stakeholders.

Goals and Opportunities
The Plan also includes a number of strategic goals and opportunities, namely:

1. To ensure that our economy continues to grow in a sustainable manner
2. Provide new opportunities for retailers, businesses, and residents alike
3. Use of innovation and technology to address the current issues
4. Improve and increase enforcement.

2.7.2. Progress since 2023

Description of progress in the area since [year of previous report]:

This document presents a comprehensive set of proposed measures aimed at assisting the Government in addressing a range of transport-related challenges, with particular focus on morning peak-hour traffic congestion. The measures cover key areas such as freight logistics, goods delivery operations, waste collection, scheduled and non-scheduled public transport, as well as road transport enforcement and related regulatory issues.

In support of these objectives, a number of pilot projects—specifically focused on freight and cargo transport and the implementation of Intelligent Transport System (ITS) solutions—are scheduled to commence in Q4 of 2025. These pilots will serve as testing grounds for innovative approaches, providing critical data and insights to inform broader, long-term implementation strategies.

3. KEY PERFORMANCE INDICATORS (KPIS)

KPIs will be reported separately by type of road network / transport network and nodes (where appropriate).

3.1   Deployment KPIs

3.1.1. Information-gathering infrastructures / equipment (road KPI) Figures

to be provided by type of network.

Figures to be provided by type of services, and where relevant by distinguishing between fixed and mobile equipment. KPIs to be

calculated by type of network.

Length of road network type / road sections (in km) equipped with information-gathering infrastructures and the total length of this same road network type (in km):

12.5Km

KPI = (kilometres of road network type equipped with information-gathering infrastructures / total kilometres of same road network type) × 100

KPI = 39%

3.1.2. Incident detection (road KPI)

Figures to be provided by type of network. KPI to be

calculated by type of network.

Length of road network type / road sections (in km) equipped with ITS to detect incident and the total length of this same road network type (in km):

KPI = (kilometres of road network type equipped with ITS to detect incident / total kilometres of same road network type) × 100

Malta would like to outline the methodology currently used to measure this indicator. At present, the process relies primarily on the manual observation of CCTV footage, through which incidents and traffic conditions are monitored in real time. This approach, while functional, has inherent limitations in terms of scalability and data granularity.

To supplement this, Room Officers actively disseminate information related to accidents and traffic disruptions to the general public via a dedicated community app, helping ensure timely communication and situational awareness.

Looking ahead, the planned ITS platform—as referenced earlier in this document—will significantly enhance these capabilities. Once the National Traffic Control Centre (NTCC) begins collecting and processing this data automatically through the ITS platform, Malta will be able to report on these indicators with greater precision, consistency, and in far more detail, enabling a more data-driven approach to traffic management and policy development.

3.1.3 Traffic management and traffic control measures (road KPI) Figures to be provided by type of network.

KPI to be calculated by type of network.

Length of road network type / road sections (in km) covered by traffic management and traffic control measures and   the total length of this same road network type (in km):

KPI = (kilometres of road network type covered by traffic management and traffic control measures / total kilometres   of same road network type) × 100

Currently, traffic management and control measures in Malta include the use of CCTV cameras, speed enforcement cameras, Variable Message Signs (VMSs), and road humps to regulate traffic flow and enhance road safety. These tools form the basis of the existing traffic monitoring framework.

However, as with other aspects of traffic oversight, this system is largely dependent on manual observation and reporting, particularly through the review of CCTV footage. While this provides a basic level of situational awareness, it lacks the automation and real-time analytical capabilities required for more comprehensive traffic control.

The forthcoming Intelligent Transport System (ITS) platform, integrated with the National Traffic Control Centre (NTCC), is expected to address these limitations. Once operational, it will enable automated data collection, real-time incident detection, and improved coordination of traffic measures across the network. This advancement will allow for more accurate and detailed reporting, as well as more responsive and proactive traffic management.

3.1.4. Cooperative-ITS services and applications (road KPI) Figures

to be provided by type of network.

KPI to be calculated by type of network.

Length of road network type / road sections (in km) covered by C-ITS services or applications and the total length of this same road network type (in km):

KPI = (kilometres of road network type covered by C-ITS services or applications / total kilometres of same road network type) × 100

This is not applicable at this stage; however, it is expected to become fully applicable by the end of 2026, in line with the key developments and justifications outlined throughout this document.

3.1.5. Real-time traffic information (road KPI) Figures

to be provided by type of network.

KPI to be calculated by type of network.

Length of road network type / road sections (in km) with provision of real-time traffic information services and total   length of this same road network type (in km):

KPI = (kilometres of road network type with provision of real-time traffic information services / total kilometres of same road network type) × 100

Same as 1.3.3.

3.1.6. Dynamic travel information (multimodal KPI) Figures

to be provided by type of network / node.

KPI to be calculated by type of network / node (where relevant); if relevant, indicate the proportion of services accessible to passengers with reduced mobility, orientation and/or communication.

Length of transport network type (in km) with provision of dynamic travel information services and total length of this same transport network type (in km):

Number of transport nodes (e.g. rail or bus stations) covered by dynamic travel information services and total number   of the same transport nodes:

KPI = (kilometres of transport network type with provision of dynamic travel information services / total kilometres of same transport network type) × 100

KPI = (number of transport nodes with provision of dynamic travel information services / total number of same transport nodes) × 100

Real-time traffic information has already been addressed in the previous section. Currently, Transport Malta provides incident alerts and traffic-related warnings to the public through a dedicated mobile application, while roadwork and closure permits are visualised via the GIS platform.

However, this approach is set to evolve with the implementation of the iROADS system, as referenced earlier in this document. Once operational, iROADS will enable automated measurement and reporting of traffic conditions and related activities directly through the platform. This enhanced functionality is expected to be fully available by Q2 2026, marking a significant step forward in Malta's traffic management capabilities.

3.1.7. Freight information (multimodal if possible or road KPI) Figures

to be provided by type of network / node.

KPI to be calculated by type of network / node (where relevant); if relevant, indicate the proportion of services accessible to passengers with reduced mobility, orientation and/or communication.

Length of road network type / road sections (in km) with provision of freight information services and total length of this same road network type (in km):

Number of freight nodes (e.g. ports, logistics platforms) covered by freight information services and total number of the same freight nodes:

KPI = (kilometres of road network type with provision of freight information services / total kilometres of same road network type) × 100

KPI = (number of freight nodes with provision of freight information services / total number of same freight nodes) × 100

This will become applicable through the **GREENMEDPORTS pilot project** mentioned earlier, as the necessary data is expected to be available by **2026**.

3.2. Benefit KPIs

3.2.1. Change in travel time (road KPI) Figures to be provided also include vehicle.km for the route / area considered.

KPI = ((travel time before ITS implementation or improvement – travel time after ITS implementation or improvement) / travel time before ITS implementation or improvement) × 100

This is not applicable at this stage. While some data is currently available, it lacks the accuracy and consistency required for reliable reporting. We therefore prefer to report progress at a later stage, once more comprehensive and validated data becomes available through the new **National Control Centre**, as referenced earlier in this document. It is anticipated that detailed reporting will be possible by the by Q3/Q4 2026.

Transport Malta would like to highlight that certain data could not be collected or processed due to two main factors outlined earlier: firstly, the significant investment and ongoing execution of large-scale road infrastructure projects, and secondly, legal issues surrounding the ITS platform tender. Both of these challenges were beyond the Authority's control and have impacted data availability during the reporting period.

3.2.1. Change in the number of road crashes resulting in deaths or injuries (road KPI)

If possible, a distinction can be made between crashes resulting in deaths, serious injuries or slight injuries. Figures to be provided

also include vehicle.km for the route / area considered.

Number of road crashes resulting in deaths or injuries before ITS implementation or improvement:

Number of road crashes resulting in deaths or injuries after ITS implementation or improvement:

This data is currently available; however, it has not yet been disaggregated to reflect the periods before and after the ITS implementation or upgrades. Such detailed information, including the impact of new measures, particularly those related to the TEN-T network, will become available in due course. We anticipate being able to report more accurate and comprehensive data by the next reporting period.

3.2.2. Change in traffic-CO_2 emissions (road KPI)

Please specify routes / areas where ITS has been implemented or improved. The length along or area within which the change in CO_2 emissions is calculated shall be long or wide enough to be representative.

KPI = ((traffic-CO_2 emissions before ITS implementation or improvement – traffic-CO_2 emissions after implementation or improvement) / traffic-CO_2 emissions before ITS implementation or improvement) × 100

Same as 1.4.2

3.3. Financial KPIs

ITS includes any types of systems and services together.

Annual public* investment in road ITS (as % of total transport infrastructure investments):

Annual public* operating and maintenance costs of road ITS (in euro per kilometre of network covered):

* public administrations or publicly-owned entities

Where possible, please provide the same figures for private investments and costs.

At the time of writing, this data was still in the process of being collected. We expect to be in a position to report it by the end of 2025.

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