Sustainable Urban Mobility Plan for the Northern and Southern Harbour (Valletta Region)

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Transport Malta

MINISTERU GĦAT-TRASPORT,
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ABBREVIATIONS

CO2	Carbon Dioxide
CVA	Controlled Vehicular Access Zone
EC	European Commission
ERA	Environment and Resources Authority
EU	European Union
Fig	Figure
HGVs	Heavy Goods Vehicles
IT	Information Technology
ITS	Intelligent Transport System
kg	Kilogram
km2	Square kilometre
kmh	Kilometre per hour
LGVs	Light Goods Vehicles
LPG	Liquified Petroleum Gas
MTA	Malta Tourism Authority
m2	Square metre
m3	Cubic metre
NHTS	National Household Travel Survey
NOx	Nitrogen Oxides
NSO	National Statistics Office Malta
NTS	National Transport Strategy
PA	Planning Authority
P&R	Park and Ride
PM2.5	Particulate Matter (fine particles with a diameter 2.5 micrometres or less)
PM10	Particulate Matter (particles with a diameter between 2.5 and 10 micrometres)
S.L.	Subsidiary Legislation
SULP	Sustainable Urban Logistics Plan
t	tonne
TEN-T	Trans European Transport Network
TM	Authority for Transport in Malta
TMP	Transport Malta Plan
TSI	Technical Support Instrument
UCC	Urban Consolidation Centre
Veh	Vehicle

FOREWORD BY MINISTER

Tackling our car-centered culture and shifting towards sustainable and alternative means of transport is a challenge.

But as Government we are committed to facilitating a just transition towards increased sustainable mobility.

Transport impacts all sectors of our economy including energy, the environment, the health and wellbeing of our citizens, and educational awareness, to mention some. The transition we are working for will lead to new skills, more reliance on digital and green solutions.

Government is already incentivising the use of electric cars: we are committed to electrify the public transport fleet where we have a commitment of changing over 100 buses to electric by 2030, we extended the free public transport system to all tallinja card holders since 1st October and we are also developing projects to promote increased active mobility across our road network. We are also looking at a mass transit system.

We are committed to continue to invest in improved transport infrastructure to enable modal shift and ensure a more effective and sustainable transport system, sustainable urban mobility across Malta and Gozo, less cars on the road, and cleaner transport overall.

There is also a need to acknowledge the negative impact of transport on our emission levels as transport is one of the biggest emitters.

Solutions are not easy but moving towards more sustainable mobility would be beneficial for all. Government is already reviewing the National Transport Master Plan to reflect this vision with the aim of ensuring an environment that provides people and businesses with actions that can promote cleaner and more sustainable mobility for all whilst ensuring more safety on the roads.

Transport sustains economic growth and that a balance needs to be found to tackle congestion on the road, promoting alternative modes of transport including cycling, mentioning the active mobility route network and ferry services, supporting better and more efficient journey for all road users and ensuring places where people can share the road safely.

The SUMP is another approach for this Government to focus on the specific needs of the regions, with the first one being one the most urbanized regions in Malta and Gozo. The SUMP clearly indicates that the solutions are not simply only focused on transport but require a multi-stakeholder approach where different entities within the public sector need to work together to meet the commitments set to address sustainable mobility. Local Councils and the private sector also have a contributing role to the success of the SUMP measures. The general public also need to embrace the need for change to shift to more sustainable modes of transport.

A cultural change is required. There are short and medium-term measures but we also need to think ahead and make eco-friendly choices in our lifestyles, which are necessary if we all way to ensure a clean, healthy, sustainable environment for our future and our children. Together, we can shape the mobility of the future.

Aaron Farrugia, Minister for Transport, Malta

FOREWORD BY CEO

The Valletta region Sustainable Urban Mobility Plan, or 'SUMP' for short, is another step towards effectively shifting our transport system to a more sustainable one. We must acknowledge that our high economic growth in recent years has also had a significant impact on the country's demography, employment and tourism, which in turn has led to increased demands for personal travel and the movement of goods - testing the robustness of our transport system and networks to the limits. The increased demand for mobility is reflected in the high number of vehicles on our roads and the related externalities, with a direct effect on the health and wellbeing of residents and visitors. Moving towards improving the sustainability of our transport system will go beyond simply reducing traffic congestion on its own; it will also seek to achieve broader economic, environmental and health benefits for society as whole.

Over the years, investment in the transport sector has been significant, ranging from improved road infrastructure aimed at addressing traffic bottlenecks and our making roads safer, to investment in public transport, aimed at modernising and improving quality, accessibility and travel information in the national bus service, to the greening of vehicle fleets and developing Malta's potential for internal maritime connectivity with passenger ferry services and new infrastructure.

This SUMP is primarily designed to address the mobility needs of people and businesses in the 27 localities within the North and South Harbour areas surrounding Valletta. It builds on the past investments in the transport system and integrates these with other identified measures into a holistic mobility plan for the next 5-10 years. The SUMP for the Valletta region has been developed in line with the principles contained in Malta's National Transport Strategy, 2050 within the context of specific provisions relating to the 'Valletta hub' set out in the Transport Master Plan, 2025. It builds on the experience and knowledge previously gained through the implementation of a smaller SUMP initiative for the locality of Valletta and other local pilot projects and expands some of this conceptual thinking to a regional level.

With a vision of seamless mobility and that of improving the quality of life for residents, businesses and commuters to the Northern and Southern Harbour areas, this SUMP presents how this can be achieved through short and medium-term measures. Such measures are the result of extensive discussions with key stakeholders, local councils within the region, public sector entities and the general public. Indeed, the collaboration that has been ongoing throughout the development process will not end here with the finalisation of this plan but will be continued at the same level during the most critical initiation and implementation phases.

This Sustainable Urban Mobility Plan and the related ongoing work required to further develop proposals into concrete actions is inevitably a responsibility that needs to be shared between all of the respective stakeholders, ministries and entities involved. With a collective effort across the government sector, and with the support of the private sector, the deployment this regional SUMP will enable transport users to choose from a wider range of alternative travel options to the private car. This in turn will help create more attractive, safer and healthier urban areas for the benefit of residents, businesses and visitors to the region.

Now that the SUMP for the Valletta region has been drawn-up, as a next step we shall be working on the development of SUMPs in the other five regions, collecting (post-COVID) travel data with a view to eventually integrating all of the regional SUMPs at a national level.

Brigadier Jeffrey Curmi, CEO
Authority for Transport in Malta

EXECUTIVE SUMMARY

Transport and Mobility have long been a focus area of the Maltese Government. In the past years, significant investment has been channeled towards improving the road infrastructure, including the Marsa Junction Project (flyovers), the Santa Luċija Underpass and the Central Link Project. At the same time, alternative modes of transport have also been supported. Public transport has been reformed, from the nationalisation of the system to ensure a better service, to infrastructural upgrades, the extension of the original route network, investment in new and a cleaner bus fleet, and the launch of free public transport free in 2022. Motorbikes, electric bikes, bicycles, and scooters have also been incentivised through a mix of policy measures and grants.

On cleaner vehicles, Government's electric vehicle grant system is currently one of the most ambitious in Europe, while the recent investments and accelerated roll-out of publicly owned EV charging infrastructure are further steps to accelerate the transition towards cleaner transport.

Furthermore, significant funds have been dedicated to maritime infrastructure, including breakwater and ferry terminals, and the Grand Harbour Clean Air Project. The government also continues to invest in tools to facilitate road enforcement including the installation of CCTV.
In 2016, Transport Malta developed a National Transport Strategy, 2050 (NTS) and Transport Master Plan, 2025 (TMP) covering all relevant transport modes (land, sea and air). The latter is currently being updated and, will be extended up to 2030. The NTS sets out the national vision for the transport sector which is: "To provide a sustainable transport system which is efficient, inclusive, safe, integrated and reliable for people and freight, and which supports attractive urban, rural and coastal environments and communities where people want to live and work: now and in the future" (p.13). The NTS identified six strategic goals which define what the transportation system is set to achieve. These goals revolve around the principles of sustainable development and focus on economic, social and environmental aspects.

Since the NTS was published, there have been significant developments. The number of foreign nationals working in Malta increased from 29,000 in 2015 to nearly 78,000 in 2021, while the number of tourists visiting Malta increased from 1.8m tourists in 2015 to 2.8m tourists in 2019 (pre COVID-19). Malta has also witnessed exceptional economic growth across this period, which in turn, has supported strong wage growth and rising levels of disposable income, driving stronger demand for car ownership. The total number of vehicles on Malta's roads increased from 347,000 in December 2015 to 413,000 in December 2021. New modes of transport ranging from electric vehicles, ride-hailing to car sharing and micro-mobility are rapidly emerging and developing. Hence, novel approaches to urban mobility planning will be crucial to address this increasing complexity.

On this point, Measure 2.2.2.7 of the NTS talks about developing a framework for the introduction and implementation of Sustainable Urban Mobility Plans (SUMPs) in Malta and Gozo. Sustainable Urban Mobility Plans (SUMPs) attempt to address the transport systems in a sustainable, holistic and integrative approach, through a bottom-up platform. They aim to satisfy the mobility needs of people and businesses for a better quality of life and build on participation and evaluation principles.

Towards Sustainable Urban Mobility Planning

Whilst Malta had already developed a SUMP for the City of Valletta in 2006, this SUMP is now part of a bigger effort to extend this exercise to all localities in the six regions of the Maltese Islands. These SUMPS take into account the additional challenges which are increasing the pressures on the transport ecosystem population growth, demographic changes, increased urbanization, the increase in total vehicle numbers, and the growth of the Maltese tourism industry.

In addition, by further introducing the general SUMP concept and process to various stakeholders of the Maltese Islands, capabilities were further developed and knowledge on sustainable mobility planning was disseminated, which could then be more broadly applied to improve the quality of life, reduce transport emissions. Thus, making Malta and its regions more attractive.

Building on the work, learnings and outcomes of the CIVITAS Destinations Project, through which a number of sustainable urban mobility pilots were implemented (as explained in Section 5.4) with the aim of eventually informing the drawing of a SUMP for the Northern and Harbour Region (Valletta Region), the latter has now been finalised, with the support of the European Commission's DG Reform Technical Support Instrument (TSI).

The development of this SUMP was based on a collaborative and participative process assessing and analysing the mobility situation and specific challenges for the region, developing high-level future scenarios to inform long-term strategies and decision making, complemented by a stakeholder engagement process. The outcome of this process is a joint vision on how

to improve the mobility ecosystem in the regions as well as making it more sustainable and aligned with Malta's economic, social and environmental ambitions.

When analysing the current mobility situation in the two concerned regions, the following key challenges were identified:

- Road safety concerns and challenges/ pressure on existing infrastructure (traffic volumes and density, congestion);
- Alternatives to private car use are sometimes limited or perceived as being less viable, reliable or comfortable;
- Parking (availability, accessibility, enforcement);
- Enforcement challenges and adequacy;
- Limited walking and cycling infrastructure;
- Car-oriented society (mind set, resistance to behavioural shift)l and
- Relatively limited uptake of clean transport modes (electric vehicles), active modes of transport and modal shift.

Part of the SUMP process includes the consideration of high-level scenarios which, were developed in line with ELTIS guidelines, to better understand the likely effects of external factors which influence urban mobility in combination with alternative approaches to react to them. Scenarios help to improve the understanding of what urban mobility could look like in the future, also in this way they can be employed to inform and inspire the subsequent development of the vision. Examining the effects of these different scenarios strengthens the factual basis for strategic decisions. For the Northern and Southern Harbour Regions, three scenarios were examined: a baseline- scenario (building on the business-as-usual case) and two additional scenarios with different strategic policy priorities. This included a tourism scenario, which focuses on a growing number of tourists travelling to Malta and the Valletta Region; and a clean and efficient transport scenario, which targets active transport, clean vehicles and a less important role of private car ownership.

Based on the initial steps undertaken, a joint vision and strategy was developed in collaboration with the relevant stakeholders. The long- term ambition remains an improvement in the quality of life (health and environment) for residents and commuters to the area, and in making the region safer and more attractive to tourists, through better planning and the provision of viable, sustainable transport solutions.

Stakeholder engagement & co-creation

Intensive stakeholder consultations have been carried out throughout all stages of the development of this SUMP. The first forum provided the opportunity to delve into further depth with regard to specific issues as part of working group sessions. Key topics discussed included: parking management, land-based and maritime transport, car related issues and mobility sharing, road infrastructure, soft modes Infrastructure, mobility management, logistics/freight, unscheduled bus transport and its logistics, environment and energy concerns, and Information and communications technology (ICT) tools. Based on the discussion and responses, an initial list of sustainable mobility instruments and policies was proposed and analysed as part of the SUMP under development.

Using the knowledge derived from both the questionnaires and stakeholder forum, workshops were organized for different stakeholders. The Regional Councils were also consulted.

The next engagement stage was delayed due to the Covid19-pandemic and was hence undertaken in June-August 2022 through a closed consultation with a number of key stakeholders that were already consulted in 2017. Following further discussions with the Local Councils concerned and other entities, further developments to the SUMP document were made. A public consultation was also held during December 2022 in order to obtain further insights into the key pillars and measures identified within the SUMP, enabling a final iteration of the plan.

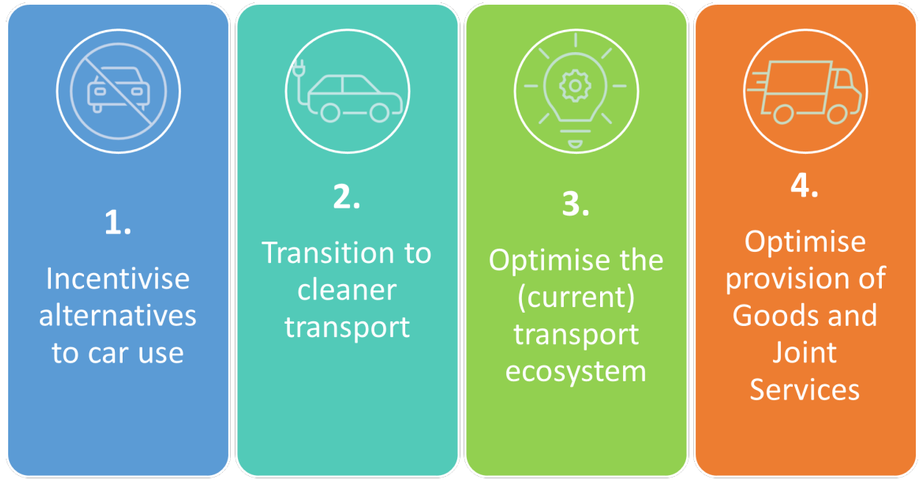
Strategic objectives & measures

The Northern and Southern Harbour Region SUMP measures are grouped into four core strategic objectives, which aim to address different levers to optimise the existing ecosystem and shift towards a more sustainable mobility solutions in Malta. The use of digital technologies is seen as a horizontal enabler for all four pillars. All four pillars will jointly contribute to the overall vision of an improved quality of life (health and environment) for residents and commuters to the area, and in making the region safer and more attractive to tourists.

Pillar 1: Incentivise Alternatives to Car Use

This strategic objective aims to incentivise alternatives to private car use. Key focus areas in this regard are:

- Encourage active modes of transport such as cycling or walking
- Improve inter-modality
- Enhance and expand public maritime transport (ferry infrastructure and usage)
- Optimise and incentivise public bus transport usage



Pillar 2: Transition to Cleaner Transport

The aim of this pillar is to incentivise the replacement of polluting internal-combustion vehicles on Malta's roads with cleaner alternatives by means of:

- Electrification of the vehicle fleet
- Evaluation and roll-out of alternative fuels

Pillar 3: Optimise the (current) Transport Ecosystem

This pillar aims to tackle two SUMP objectives, namely (i) greater efficiency and cost-effectiveness of the transportation of people and goods and (as a product of these initiatives), (ii) the reduction of air and noise pollution, greenhouse gas emissions, other emissions (e.g. the non-tail pipe emissions element generated by cars) and energy consumption.

This is done through measures aimed at the optimisation of the current ecosystem in the short to medium term:

- Improvements in parking situation and utilisation of Park & Ride facilities
- Clear focus on enforcement
- Exploitation of data and digital technologies

Pillar 4: Optimise Provision of Goods and Joint Services

This strategic objective is closely linked to the eventual development of a national Sustainable Urban Logistics Plan (SULP) and aims to shift delivery and logistics towards more efficient and sustainable mobility practices such as:

- Exploration of last-mile logistics solutions
- Incentivisation of alternative modes of delivery
- Exploration of the establishment of mobility/logistics hubs (also linked to last mile and other objectives)

The measures being proposed as part of this SUMP are governed by the NTS which sets out the vision and strategic goals that the Government aspires to achieve within the transport sector. As with any national document, the next update cycles of the TMP will look at the latest development at a country level (economic, demographic, environmental) and guide any subsequent changes to this and the other SUMPs.

Outlook

Following the publication of the SUMP, next steps will focus on implementation and monitoring. It will not be possible to implement all measures simultaneously. Attention will need to be given to the planning of the measures, the participation process and the consultation with different stakeholders. Furthermore, successful implementation will depend on the availability of both human and financial resources.

Monitoring and evaluation, both of the planning process and the measure implementation, are crucial to the effectiveness of a SUMP. Thus, an evaluation plan is foreseen in this SUMP, which enables the ongoing monitoring of the achievements of the SUMP goals, the implementation plan, as well as the measures within the strategic pillars, and changes to these measures if the evaluation process indicates amendments are required.

Finally, this SUMP will be followed by the development of other SUMPs and, an overarching document covering the remaining regions of the Maltese Islands. These will also be accompanied by Sustainable Urban Logistic Plans for each region accordingly.

1

INTRODUCTION - VALLETTA REGION: “A BETTER MOBILITY AND QUALITY OF LIFE FOR RESIDENTS, COMMUTERS AND TOURISTS”

1.1 Background to the Development of the 2022 Valletta Region SUMP

This Sustainable Urban Mobility Plan for the Northern and Southern Harbour Regions has been drawn up with the ultimate aim of improving the quality of life and mobility. The present plan has its roots in the European Union project CIVITAS DESTINATIONS. Within the DESTINATIONS project, six islands collaborated on the future mobility of their sites, giving a central role to the interests of residents, businesses and tourists. Besides being based on the output of this project, this SUMP is also developed in line with established European ELTIS SUMP guidelines. These guidelines are an initiative instigated by the European Commission with recommendations for a harmonised approach towards SUMP development and layout across Europe. It is a step-by-step approach that follows twelve stages. Each city/ region that is implementing a SUMP can follow these steps where variations in the approach, stakeholder engagement, background and history will influence the process and content of the plan.

This SUMP shall act as a guidance for subsequent policy plans. It links existing measures and plans and provides a basis for further implementation. The SUMP consists of existing actions, measures and future measures, that together form measure-packages which have been categorised under four pillars.

In addition, this SUMP is the result of a thorough dialogue with stakeholders as well as expert consultation. The ultimate objective of this exercise is translated into a vision statement for this SUMP.

“An improvement in the quality of life (health and environment) for residents and commuters to the area, and in making the region safer and more attractive to tourists, through better planning and the provision of viable, sustainable transport solutions.”

This is the first of other SUMPs to be produced in Malta over the upcoming two years, with additional SUMPS to cover all six regions of Malta and Gozo.

A SUMP can explore innovative solutions, as yet untested on the Islands, in order to improve mobility patterns, meet demands in the transport sector and overall contribute towards making transport more sustainable. Several measures being included in this document have been piloted during the DESTINATIONS project. This allowed the feasibility of such measures to be assessed in practice and making the necessary improvements to the measures prior to their inclusion in this long-term plan.

This SUMP is not the first one to be developed for Malta. In 2006, a first SUMP for Valletta was developed for the period 2006 – 2012. Some of the successfully implemented solutions and measures in this earlier SUMP, included:

- Expanding the pedestrian zone in Valletta
- Implementation of Park & Ride facilities
- Vehicle access control to the historical centre of Valletta
- General public mentality on mobility

Following the implementation of the above-mentioned measures, a shift in mobility patterns was observed. The number of vehicles entering Valletta city centre was reduced (especially in the morning peak), while a clear modal shift to the new Park & Ride facilities, increased ferry patronage and usage of the introduced lift have resulted in positive benefits for Valletta's residents, commuters and visitors. Key benefits include:

- Quality of life improvements
- General urban environment and air quality improvements
- Reduced levels of congestion

The 2022 Northern and Southern Harbour Regions SUMP builds on the achievements of the earlier SUMP and aims to continue driving enhancements to quality of life and the urban environment through sustainable urban mobility options across the 27 localities in the two regions.

1.2 Transport Policies Context Under which the 2022 Valletta Region SUMP has been Developed

In 2016, Transport Malta developed a National Transport Strategy, 2050 (NTS) and Transport Master Plan, 2025 (TMP) covering all relevant transport modes (land, sea and air) in the short, medium and long term for Malta. The measures being proposed as part of this SUMP are governed by the NTS and the accompanying TMP which sets out the vision and strategic goals that the Government aspires to achieve within the transport sector.

The NTS sets out the national vision for the transport sector which is: "To provide a sustainable transport system which is efficient, inclusive, safe, integrated and reliable for people and freight, and which supports attractive urban, rural and coastal environments and communities where people want to live and work: now and in the future".

For the SUMP to be successful it is necessary to have proper alignment with the NTS, which identifies six strategic goals which define what the transportation system should achieve. These goals revolve around the principles of sustainable development and focus on economic, social and environmental aspects.

The six strategic goals of the NTS revolve around transport to:

- Support Economic Development
- Promote Environmental and Urban Sustainability
- Provide Accessibility and Mobility
- Support Social Development and Inclusion
- Remain Safe and Secure
- Work towards Improved Public Health

The measures being proposed in this SUMP are formulated in the context of the NTS and the accompanying TMP. The NTS hence provides the direction, but also the boundaries under which any transport action plans need to be prepared. The NTS is the "national" strategy, while these SUMPs are "regional" plans that fall , within the hierarchy of government documents.

Since the NTS was published, there have been significant economic and socio-demographic developments. The number of foreign nationals working in Malta increased from 29,000 in 2015 to nearly 78,000 in 2021, while the number of tourists visiting Malta increased from 1.8m tourists in 2015 to 2.8m tourists in 2019 (pre COVID-19). Malta has also witnessed exceptional economic growth across this period, which

Plan	Geographic Level	Policy	Published
National Transport Strategy 2050	National	Strategic	2016
Transport Masterplan 2025	National	Tactical	2016
Valletta Region SUMP	Regional	Tactical/operational	2022

Table 1 : Hierarchy of Transport Policies and Plans

in turn has supported strong wage growth and rising levels of disposable income, driving stronger demand for car ownership. The total number of vehicles on Malta's roads increased from 347,000 in December 2015 to 413,000 in December 2021. New modes of transport ranging from electric vehicles, ride-hailing to car sharing and micro-mobility are rapidly emerging and developing. Hence, novel approaches to urban mobility planning will be crucial to address this increasing complexity.

Furthermore, within this NTS and economic development, various national transport initiatives have taken place recently, or have already been announced. These include:

Roads: Significant investment in roads infrastructure, including the Marsa Junction Project (flyovers), the Santa Luċija Underpass and the Central Link Project.

Maritime: Investment in maritime infrastructure, including breakwater and ferry terminals, and the Grand Harbour Clean Air Project, and the introduction of a fast ferry service between Valletta and Gozo.

Public transport: Investment in public transport, in conjunction with the private operator, including infrastructure spend, extension of route network, investment in new and a cleaner bus fleet, and the making of public transport free for all.

Cleaner transport: Grants to assist in the uptake of private and commercial electric vehicles, investment in public charging pillars, the roll-out of an EV Public charging policy to crowd-in private investment, and continuous investment in upgrading Enemalta's distribution network. Government plans to continue improving the EV charging network by deploying (directly and indirectly through private operators) additional charge points as well as fast charging infrastructure. The conversion of the government fleet to low-emission vehicles/ non-ICE vehicles is also envisaged. Government will also follow EU direction on any ICE cut-off data (for new vehicles). In addition, government

will continue its grants on the installation of solar PVs on buses. Government has also announced plans to look into the possibilities of alternative technologies. The shift to new technologies (will require an investment in the whole ecosystem, including maintenance facilities and new skills within such ecosystems – government is also committed to investing in companies and in their workforce to assist in these skills being increasingly made available. Government will also explore possibilities to incentivise the retrofitting of vehicles both by means of switching to alternative powertrains (conversion to electric) or improving the overall emission performance e.g. by exhaust after-treatment. On goods deliveries, the existing grant for cargo bikes will be continued to further encourage the deployment of such vehicles within the sector.

Mass transit: preliminary studies have been undertaken.

Intelligent transport systems and enforcement: implementation of an Intelligent Traffic Management System in various stages. The roll-out of ITS at national level in the first phase generates vast quantities of raw travel and traffic data which can be filtered and structured to provide a vital monitoring and assessment tool for transport planners and operators, emergency services, policy makers and control bodies. On enforcement, government continues to invest in tools to facilitate road enforcement (CCTVs, resources). Planning is another area which requires enforcement – for instance, new developments increasingly need to take mobility into account (e.g. parking; EV charge points or connectivity for such).

Market opening: the taxi/cab market has been opened up to new operators, leading to a situation where consumers have multiple options, various operators and apps to choose from, and lower prices.

Alternative means of transport: government has also legislated and/ or provided assistance (e.g. grants) in favour of various alternatives to the private car, including motorcycles, bicycles, e-bikes/ conversions, mopeds, kick-scooters and pedelecs, as well as the sharing concept for different modes of transport (bikes; mopeds).

1.3 Planning Jurisdiction of the 2022 Northern and Southern Harbour Regions SUMP

This SUMP comprises the 27 Local Councils falling within the Northern and Southern Harbour regions (as per NSO classification), as shown in Figure 1. These are Birgu, Birkirkara, Bormla, Fgura, Floriana, Gżira, Ħamrun, Isla, Kalkara, Luqa, Marsa, Msida, Paola, Pembroke, Pieta, Qormi, San Ġiljan, San Ġwann, Sliema, Santa Luċija, Santa Venera, Swieqi, Ta' Xbiex, Tarxien, Valletta, Xgħajra and Żabbar. The SUMP was developed in cooperation with the Local Councils from these localities and other stakeholders.

1.4 European Framework of the SUMP[1]

A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles.

The European Commission (EC) has issued European Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan as a recommendation for cities and regions that want to implement a SUMP as their major mobility policy plan. It includes a 12-step approach (see Figure 2). Each city/ region can follow these steps where variations in the approach, stakeholder engagement, background and history will influence the process and content of the plan.

Important steps in the approach for this SUMP have been:

- Stakeholder engagement
- Setting the goals, the scenarios and the vision

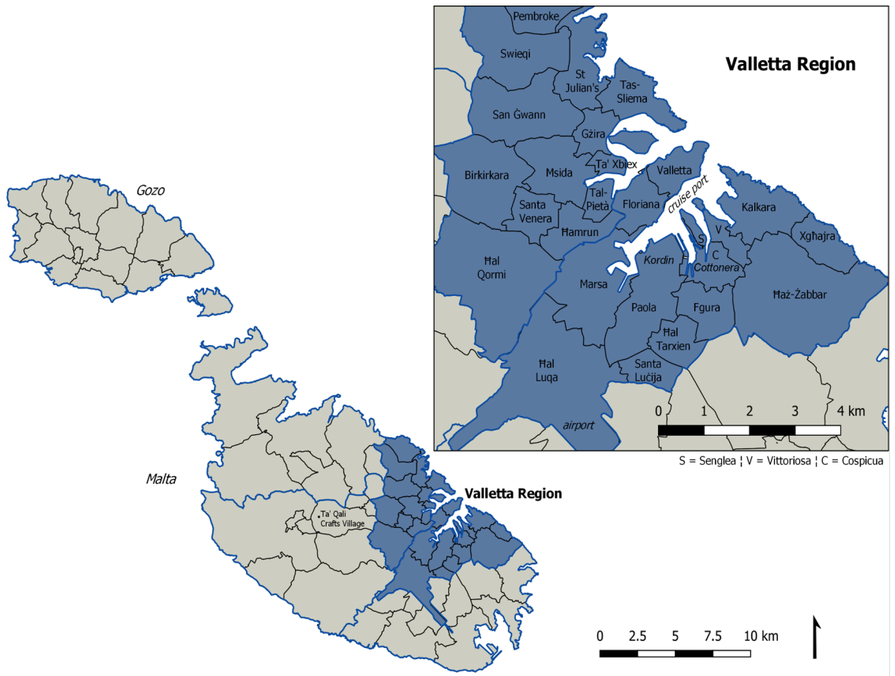


Figure 1: 27 councils of the Valletta Region (Source: CIVITAS Destinations, Measure Evaluation Result MAL 2.1, 2021)

[1]*https://www.eltis.org/mobility-plans/sump-process*

- Creating a SUMP for both citizens and tourists

For the development of this SUMP, these 12 stages were followed (see Figure 2). With the publication of this SUMP, Stages 1-8 have been completed. Stages 1 – 3 are described in Chapter 1 and 2: the baseline description and the analysis of the mobility situation. In Chapter 3 a set of theoretical scenarios are sketched out and in Chapter 4 the objectives are described. This is in line with Stages 4, 5 and 6 of the planning cycle. Stages 7 – 12 are described in Chapter 5, which presents the measure packages, implementation of the plan, the monitoring and the future review.

1.5 Development Process

The development of a SUMP is a complex process. A broad approach is advocated where, in addition to transport and mobility, attention is also given to energy use/ efficiency and the environmental objectives. In addition, the SUMP consists of an integral process in which the planning process is completed via a fixed number of stages. Important stages in the process are:

- Analysis of the situation and possibilities
- Setting the vision and goals
- Establishment of the SUMP
- Implementation of measures and evaluation

Figure 2: SUMP planning cycle (Source: Rupprecht Consult, 2019)

This SUMP is developed with a supra-municipal approach to urban and regional problems. This unique approach builds on the former EU project Poly-SUMP[2] which developed and tested a methodology to improve the quality of sustainable regional transport, focusing on "diffuse city" regions whose urban functions are scattered in a polycentric network of compact towns and villages. Such regions demand that mobility is planned for the whole region, and that the different layers of governments and authorities are involved in the planning process. This methodology uses a collaborative working process to bring together key stakeholders of the polycentric region to initiate dialogue across institutional and geographic boundaries, regarding the region's common mobility challenges and issues. This is based on the conventional SUMP process, but adds elements to further understand polycentric urban regions and enable a more participatory process. The Poly-SUMP methodology consists of three elements: initial preparation to understand the dynamics of one's region; the creation of a common ground and vision; and the use of outcomes to further elaborate the proposed plan.

Malta consists of a considerable number of small municipalities. Although these local communities have jurisdiction in some areas, mobility policy lies with central government. The Northern and Southern Harbour Regions consist of 27 Local Councils, which also makes data collection and decision-making more complex.

1.6 Approach and Timeline

The overall approach was based on the set-up of a participatory design process in which the basic idea was to enhance what was shared by the stakeholder group, including citizens as representatives of the public interest. It is understood that through such methodology it becomes possible to build pathways of changes, over the short, medium and long-term. The methodology enables the participants to develop a critical view of the past, devising at the same time possible solutions for the future and finally elaborating actions for the present, all whilst keeping in mind strategic long-term goals.

1.7 Participation with the Stakeholders in both Regions

An important part of a SUMP is the involvement of stakeholders including residents, businesses and tourists. The planning process is transparent, and ideas, opinions and insights are shared amongst all participants.

Following an encouraging response from the initial pre-consultation questionnaires issued under the Destinations Project the results were collated for subsequent discussion during the first stakeholders' consultation forum, which provided the opportunity to delve into further depth with regard to specific issues as part of working group sessions. The questionnaire consisted of two parts. In the first part respondents were asked to describe the current issues and challenges based on the following ten thematic areas, keeping in mind specific mobility conditions from/to and inside the regions:

- **Parking management** -including on-street parking, communal parking areas and wider locality-based parking strategies (such as Park and Ride schemes)
- **Land-based and maritime transport** (including public transport)
- **Car related issues and mobility sharing** - car sharing and car pooling
- **Road infrastructure** - also including the discussion of streets as potential social spaces, pedestrianisation/shared spaces
- **Soft modes infrastructure** - notably cycling, walking and safe cycling routes
- **Mobility management** - demand and traffic management, inter-modality, transport on demand, CVA and LEZs
- **Logistics/freight** - infrastructure and management
- **Unscheduled bus transport** and its logistics
- **Environment and energy** concerns
- **Information and communication technology (ICT)** tools

Respondents were also asked on how to best address the challenges being outlined as well as grade the gravity of each issue/challenge in question. In the second part, respondents were asked to elaborate on the future needs and priorities of the two regions based on the same thematic areas outlined above. The responses of the second part, along with the responses of the first part provided an initial list of effective sustainable mobility instruments and policies to be used, proposed and analysed as part of the SUMP under development. In order to ensure clarity of issues, a Glossary defining the terms used in the questionnaire was included as an Annex.

Subsequently, an initial stakeholders' consultation meeting took place including various Ministry representatives and policy officers, Local Councils, various officers from Transport Malta, the Planning Authority and the Environment and Resources Authority, University of Malta academics and researchers, individuals hailing from associations including the Chamber of Small and Medium Enterprises and the Malta Hotels and Restaurants Association, individuals from private entities such as transportation consultants, and NGOs such as BAG (later to become Rota). Key issues were discussed and subsequently mapped geographically on the two region maps that were purposely prepared for the forum.
The interactive focus group sessions were split as follows:

- *Workshop 1:* Urban Traffic Congestion and Parking issues
- *Workshop 2:* Land and Maritime Public Transport
- *Workshop 3:* Soft modes & cycling

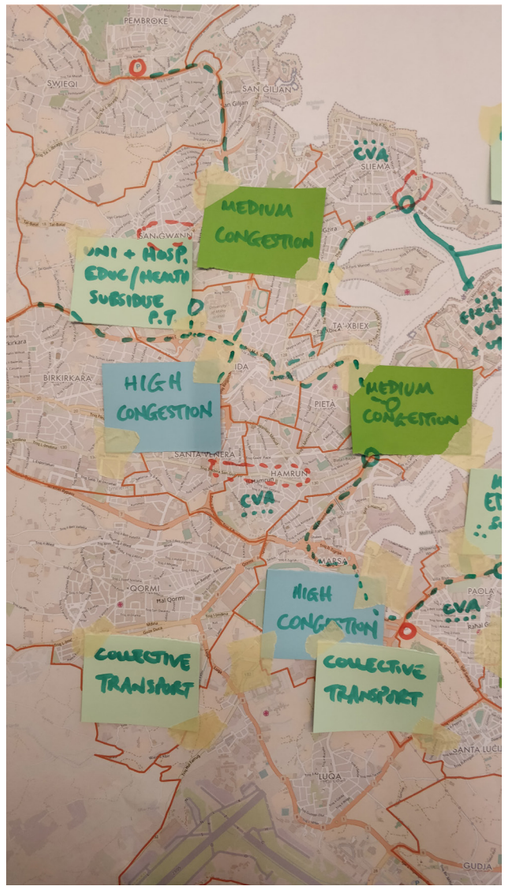
[2] *https://poly-sump.eu/home/*

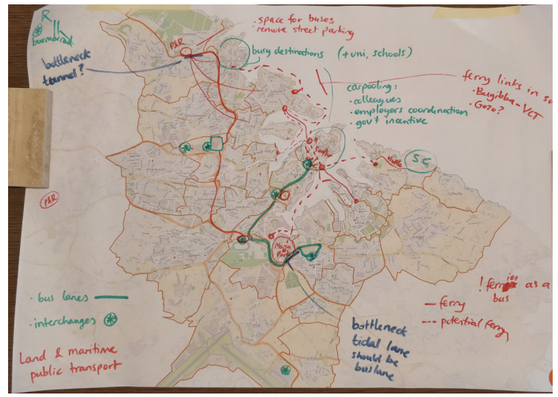
- *Workshop 4:* Mobility Management and Unscheduled Transport
- *Workshop 5:* Freight & Services Logistics
- *Workshop 6:* Smart City Concept, ITS, Alternative and Sustainable Modes of Transport, Environment and Climate Change

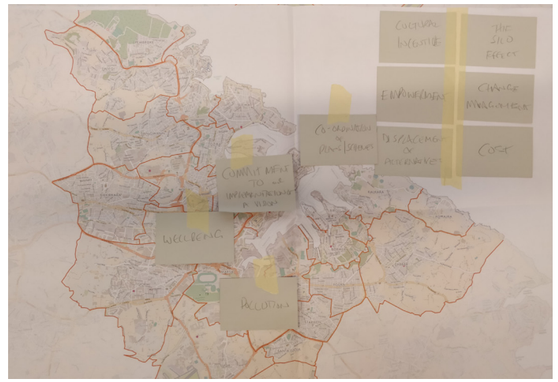
Using the knowledge derived from both the questionnaires and stakeholder forum, a considerable number of Local Council representatives were met and interviewed. In addition, workshops were organised for different stakeholders. Local Councils' responses, wherein further issues in relation to (i) enforcement and (ii) regulation were also discussed.

The next stage was a closed consultation with a number of key stakeholders. Following further discussions, further developments were made to the SUMP document and a public consultation was held during December 2022 in order to obtain further insights into the key pillars and measures identified within the SUMP, enabling a final iteration of refinement. This last round of consultation was carried out electronically and targeted primarily at the general public. For this reason, the document was reviewed in order to ensure that its contents could be understood more easily and unequivocally, thus enabling a wider reach of participation in this last phase of the process.

Figure 3: First Stakeholder event, 2017







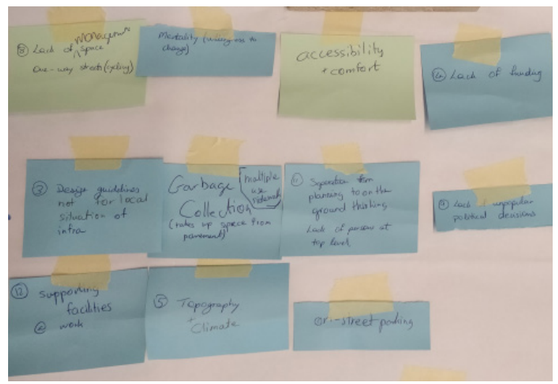


Figure 4: Collection of notes from stakeholder workshop, 2017

All the feedback received, even with regard to language/semantic terms, was evaluated and used pertinently such that final draft of the SUMP document would be both comprehensive and clear.

Notably, the main mobility problems were identified through thematic, including the existing congestion and traffic situation in the Northern and Southern Harbour Regions. Ideas brought forward included better communication, parking regulation, modal shift through mobility management and the introduction of better alternatives to conventional modes of transport.

The list of key stakeholders was subject to variations on a needs basis. In principle, if an association/union/ advocacy group/ commission exists for a particular sector, such a lobby group was identified as a key stakeholder for that sector and engaged with directly.

Following updates to the SUMP, it was presented to the general public in December 2022. Public consultation is a standard process in planning practices, in which the policy document is published for public consultation prior to final endorsement and publication. However, the process of one-to-one meetings with key stakeholders throughout the development of this SUMP assisted the policy makers in focusing on key challenges and ensuring a balanced approach in the proposals being made to address said challenges. The combination of analytical techniques, using focus groups, round table discussions, seminars followed by discussions, one-to-one interviews, presentations to key focused stakeholders, and via both face-to-face and remote interactions enabled the policy makers to have a myriad of responses and insights that were considered during the SUMP's formulation.

The public consultation was conducted following a specific approach that included the most pertinent aspects derived from the policy document being publicized and inviting the public to revert back with any issues, concerns and suggestions. Indeed, the formulation of this SUMP has presented an opportunity to instill an informed debate, fueled by stakeholder engagement wherein key stakeholders in question were not passive participants but were given the floor to debate and voice their issues and proposals in appropriate and stimulating environments, on more than one occasion. Each stakeholder event was aided by moderators who ensured an equitable involvement of stakeholders and who facilitated the understanding of the issues.

2

BASELINE – CURRENT SITUATION

Initially, desktop research was undertaken to gain a clearer picture of the current mobility situation in the two regions. Data was collected from various sources for the compilation of the baseline. The baseline was based on both statistics as well as stakeholder feedback. The views of stakeholders and related information were gathered through the stakeholder forum sessions.

2.1 Geography, Population and the Economy of Malta

Malta is the main island in the Maltese Archipelago, which is made up of three islands, covering an area of approximately 316 km2. The island is often considered as a city-state, with one principal urban agglomeration being the Northern and Southern Harbour Districts. Around 47% of the population reside within this area (c. 17% in the Southern Harbour region and c. 30% in Northern Harbour region; NSO, 2021, Census of Population).

Valletta is the capital city of Malta and is located at the center of the urban agglomeration, right in between the Northern and Southern Harbour districts. Valletta's resident population amounts to 5,157 as of last census (NSO, 2021). It is a fortified city built in the 17th century. Its main original purpose was defense, therefore access to the city is very limited. Four access points allow road vehicles to enter and exit the city fortifications; namely, (1) St Mark's Street (entry only), (2) St Paul's Street (entry only), (3) Old Bakery Street (exit only) and (4) along Marsamxett Street (2-way access) (see Figure 5). There are also access points to the lower access route outside of the fortification walls (Boat Street), occurring off Great Siege Road and the Sally Port (at the bottom of Old Bakery Street).

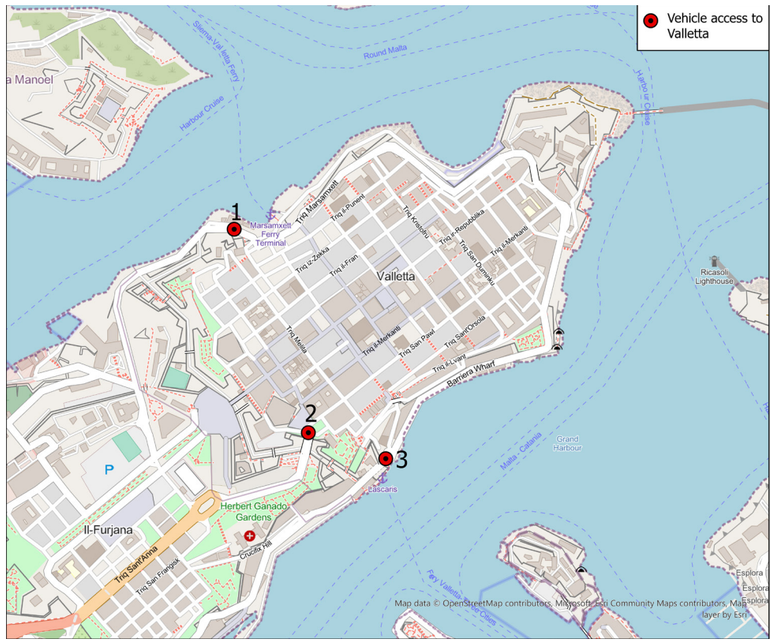


Figure 5: Map of Valletta access points (Leonard J.i, 2018)

The network is built in a grid-like pattern with straight perpendicular streets of differing widths. Parts of the city are pedestrianised, including long sections of Republic Street and Merchant Street. These two streets host the main retail outlets as well as a number of boutique hotels, government administration buildings, the law courts and office buildings. In terms of vehicular traffic, access to the pedestrianised zone is granted to residents, goods vehicles and waste collection vehicles only at restricted times of the day. Small electric city cabs are also allowed to access. Large heavy goods vehicles, coaches and buses are not allowed to enter the city at all. A major public bus interchange is located right outside the city's main gate (through which all vehicular traffic is prohibited access), while coaches disembark their passengers beyond the confines of Valletta at Sarria Road.

Apart from Valletta, the Valletta Region also comprises other 26 towns and villages. These include:

The Three Cities of Birgu, Bormla and Isla, and Kalkara: These 4 towns are all fortified sites, with similar characteristics to Valletta. They are on the opposite side of Valletta, separated by the Grand Harbour, but linked through ferry services. Their peninsular geography, steep topographical changes and narrow roads leads to congestion and offer significant challenges to mobility for various users. The 4 towns are going through a phase of regeneration, with both local and foreign individuals deciding to move back to these Harbour areas, particularly following the upgrade of Bormla's Dock No 1 project, which has generated a new landscaped promenade along its extents, and future plans to improve other public spaces within this Cottonera area, most notably the upcoming works on Birgu's main square, together with the potential offered by several Slow Streets strategies that have been prepared for all four localities.

Fgura: A key town with a growing population, but which acts as a key thorough way for the Harbour areas and other towns in the Southern region, including Paola. A key challenge in this locality is the main thoroughfare running through the locality, Zabbar Road, which is characterised by high volumes of vehicular traffic while also essentially representing the locality's linear town centre, often resulting in pedestrian-vehicular conflicts that should be addressed. Its commercial town centre is popular with the Southern region of the Island, with a number of important retail outlets being located here.

Floriana: A town that leads to Valletta, and which has similar characteristics (a grid-iron layout, public and private office buildings; old and historical residential buildings; large square; churches) but sits outside the fortifications within Valletta's hinterland and its military outerworks. It is hence equally affected by congestion to and from Valletta and equally serves as a destination in its own right due to specific land uses that have a regional or even a national catchment, most notably the Floriana Health Centre, Boffa Hospital, the Police Headquarters, the Archbishop's Curia and a number of Government Departments and Ministries (such as those in relation to tax, public works and education). At its fringes, the locality is also characterised by a number of important recreational spaces, with its public historical gardens attracting a fair share of visitors on a daily basis, the presence of authorities (such as the Planning Authority and the Building and Construction Authority). Importantly, the largest Park & Ride facility is located at the outer edge of this locality, offering an important interchange from the private vehicle into Valletta.

Birkirkara: The town with the largest population in both the Valletta region and Malta, it is heavily urbanised and a key thorough way for traffic to and from the Harbour area through the locality, defined by Naxxar Road and Valley Road that leads down to Msida, which is also an important bus corridor as well as the locality's town centre in terms of retail and catering offer. This spine is therefore both vehicular and pedestrian in nature, often creating conflicts between the two as the quality and experience of the town centre is tainted by high congestion levels throughout the entire extent. This conflict is highlighted in Transport Malta's Master Plan 2025. The older core of the locality, off which one may find important uses having a catchment beyond the locality (such as Birkirkara's Community Centre which also houses the Health Centre) is characterised by narrow streets and a high level of pedestrian activity. The quality of such streets is often hampered by through traffic, as drivers attempt to avoid the congested and slower-moving spines. This may be better managed while simultaneously reinforcing pedestrian links, as proposed in a number of Slow Streets strategies that have been recently prepared for this locality. The Mriehel Business District, formerly knowns as the Mriehel Industrial Estate, occupies an important part of this locality, spread over a significant territory and a central hub in terms of logistics and supply chains. Formerly largely characterised by warehousing, manufacturing and other industrial uses, the estate has today diversified to also include commercial outlets, eateries and offices. It has therefore become a magnet in its own right, with plans for future expansion and densification, with these diverse land uses adding on to the mobility challenges already posed by the industrial uses.

Msida, Ta' Xbiex, Gżira, Sliema, San Ġiljan: All 5 towns are on the promenade, and have a mix of residential buildings, commercial units (notably offices, hotels, retail and catering outlets) and leisure/entertainment areas, use of maritime infrastructure (marinas, berthing, ferry, bays). Congestion is very common in these areas, both during on-peak work hours, as well as night times. Together, the localities offer the potential of a continuous pedestrian promenade, with only a few interruptions. The vehicular route along the waterfront is also an important bus corridor for a number of routes. Through lateral connections off strategically placed bus stops, pedestrians are able to link to the inner parts of the individual localities along this route. There may also be the potential of introducing a continuous cycle route along this key thoroughfare. Due to the variety of commercial land uses located within these localities, notably within Gżira, Sliema and San Ġiljan, these localities attract numerous local visitors and tourists alike. Furthermore, these very same uses are often the reason for the localities' appeal in residential terms, with the demand for both sales and rentals remaining high throughout the year. Again, the overlap of Msida's vehicular thoroughfare along the promenade which is also an important linear commercial route creates conflicts as discussed in Transport Malta's Master Plan 2025. Ongoing works to this promenade

aim to reinforce its pedestrian qualities which may be further exploited to link to the inner parts of the locality, as proposed in a number of Slow Streets strategies that have recently been prepared for Msida. In a similar vein, there are a number of Slow Streets proposals that could be taken on board for all five interconnecting localities.

Pieta, Ħamrun, Santa Venera: Residential areas that see congestion due to their location between the Central region and the South/Northern Harbour regions. The axis running through Santa Venera and Ħamrun, linking all the way to Floriana and eventually Valletta, is simultaneously a key bus corridor, a linear town centre and a major vehicular thoroughfare. These overlaps again create conflicts between traffic flow requirements and other activities, which are more pedestrian-oriented in nature, as highlighted in Transport Malta's Master Plan 2025. In recent years, these localities have become more popular for residential purposes, due to the presence of more affordable residential properties. They have also become more diverse in terms of the local population, with the presence of ethnic communities residing within distinct areas of these localities. At its periphery, Santa Venera interfaces with the Mriehel Business District, this overlap is particularly felt in roads such as Canon Road, an important vehicular connection dotted with commercial enterprises of various scale and nature, together with the presence of large and heavy vehicles that are entering or exiting the Mriehel Business District or that use this route to access the arterial road network towards other destinations.

Marsa: This is an industrialised area around the Harbour, with numerous industrial premises many of which are located within an industrial estate, the site of an old power station that will be regenerated following its closure, sports complex and grounds, and an updated arterial road project that connects the Northern Harbour to the South and South Harbour areas. This locality also has a number of potential assets that could link to a wider network of open spaces, such as its waterfront and Spencer Garden, as well as a mobility interchange point through the presence of a Park & Ride facility. The pedestrian experience is currently somewhat hampered by the presence of industrial activities and heavy vehicles. The significant presence of several warehouses results in a number of commercial vehicles, such as delivery vehicles of various scales, that pass through both the waterfront and local roads in order to reach localities outside of Marsa. This therefore has implications in terms of logistics and supply chains.

Luqa: This town includes the Malta International Airport and is currently seeing investment in its roads infrastructure through the development of flyovers and junctions to facilitate access to the airport. Cargo that is handled to and from the airport necessarily finds its way along the peripheral routes of the locality, with large and heavy vehicles occupying the road space that is also a bus corridor and that provides access to serve the local population. Apart from the old town and new residential buildings, the town includes a number of industrial premises within the Industrial Estate lying on the outskirts of the locality and housing both manufacturing and warehousing uses. As a result of such land uses, this locality is also characterised by the presence of large and heavy vehicles within its local street network, as such vehicles find their way onto the more prominent road infrastructure.

Paola: Located between Marsa and the Cottonera area, this locality has a diverse array of land uses, with a high proportion of residential properties, wherein significant redevelopment has also occurred in recent years, as well as commercial uses that also lie in close proximity to Fgura's commercial centre. Being accessed off the main arterial and distributor road network, the locality is also characterised by a fair amount of through vehicular traffic that mars the pedestrian retail and recreational experience that has been introduced in recent years with the pedestrian scheme around the Church.

Qormi: One of the largest towns in Malta, with various small and large commercial entities, a number of industrial areas spread around the outer edge of the locality, as well as a sizeable local population. Its proximity to Marsa, as well as the arterial and distributor road network, together with the scale of some land uses (such as showrooms, warehouses, manufacturing and logistics depots, supermarkets and shopping outlets) again implies the presence of high volumes of vehicular traffic at various scales. The demand for commercial uptake within this locality has remained consistent throughout the years, and even increased as of late, due to the presence of more competitive rents in tandem with the appeal of this locality as a result of its centrality and proximity to a large catchment of residential development. Here, issues in relation to logistics and supply chains are paramount, together with incompatibility of pedestrian and vehicular activity that further creates issues in relation to safety, especially with vulnerable users.

San Ġwann and Swieqi: These two localities have increased in appeal over the past decades. Some reasons include their proximity to the localities of Sliema and San Ġiljan respectively and the presence of certain planning policies (such as those permitting the splitting of detached and semi-detached dwellings into smaller properties, or those in relation to rezoning of residential areas that in turn allowed single residences to be redeveloped into residential blocks or complexes). The densification of these localities has in turn fueled the need for ancillary activities that work in their support, in the form of local commercial outlets that today have diversified further to also include numerous eateries and retail outlets, beyond those associated with daily amenities. San Ġwann is furthermore characterised by the presence of offices, at different scales.

As a result of these phenomena, these localities have also become destinations in their own right. The vehicular pressures in Swieqi are also related to the locality's proximity to Paceville, with visitors to the latter area often seeking to park within Swieqi's local residential streets, creating an unnecessary presence of vehicular activity in the process. In turn, San Ġwann's main road which is defined by a high volume of through traffic couple with its linear town centre configuration, can again be considered as another example of conflicting road usage that compromises the pedestrian experience, also highlighted in Transport Malta's Master Plan 2025. The presence of a substantial Industrial Estate located at the periphery of the locality, characterised by a diverse mix of industrial, warehousing and commercial land uses, and wedged between the locality's outer edge and main residential zone and Mater Dei Hospital, provides both logistical challenges and challenges in relation to vehicular generation and congestion. In recent years this zone has expanded into the Malta Life Sciences Park, an important R&D hub that has added more users into the area.

Pembroke: A locality with a number of distinct land uses, notably sports- and education-related, this locality has increasingly attracted numerous families, many of whom originally resided within homes developed as part of the Home Ownership Schemes and subsequent housing post-Building Development Areas Act. A number of these homes have been redeveloped over recent years or are in the process of redevelopment. This densification has also led to the presence of other non-residential land uses, which were missing in the previous decades due to economies of scale issues. This locality enjoys a high ratio of public open space per capita, comprising natural areas at the edge of the locality and towards the sea, informal and formal recreational zones such as playgrounds and outdoor sports facilities. These recreational areas, and particularly the sports facilities, attract numerous visitors throughout the year, making Pembroke a destination in its own right. There is also potential to connect these open space assets to other urban areas in the immediate surroundings, in order to encourage better walking and cycling networks within the region.

Santa Luċija: Established as a new residential area throughout the 1970s and 1980s, this locality was a planned town that developed primarily as neighbourhoods comprising terraced houses (some of which are today also undergoing some redevelopment), surrounding a network of open spaces and designated areas such as a town centre. The locality has a number of open spaces, and thus attracts residents from surrounding localities, particularly due to recent upgrades and formalised walking and cycling routes that have been established and that have increased the locality's appeal. As with Pembroke, there is ample potential to connect these open spaces and movement networks with the surrounding localities through the development of more strategic and safer connections, in tandem with the infrastructural upgrades that have been carried out along the arterial road network.

Tarxien: A locality that is enriched by the presence of significant cultural heritage, Tarxien attracts local and foreign visitors throughout the year. Characterised by a network of narrow streets, both within the locality's inner core and newer outer residential areas, some key challenges to the locality include a significant presence of through traffic and the presence of large vehicles such as tourist coaches due to the historical sites as well as heavy vehicles transiting along peripheral routes to and from the nearby Bulebel Industrial Estate. The proximity of land uses throughout the locality, as well as the short distances to other neighbouring urban centres, as well as the presence of a number of open spaces, could provide a strong basis for the establishment of stronger pedestrian and cycling networks within this locality, as proposed in Tarxien's recent Slow Streets strategies, while simultaneously managing the inflow of tourists and their modes of travel to Tarxien.

Xgħajra: One of the smallest localities on the Island, and situated along the south-eastern coastline, this locality sees its population increase during the summer months due to the presence of second homes, similar to a number of other seaside localities. It is largely a residential locality, with a few ancillary local non-residential uses. The availability of both greenfield and brownfield sites that are up for development has resulted in several of newly proposed residential blocks and complexes in the recent months, which may contribute to an increase in the permanent local population in the near future. One of the locality's main assets is its waterfront, which also attracts individuals residing in the surrounding localities, most notably in Zabbar. There is potential to have even better pedestrian and cycling connections to this waterfront from the neighbouring inland localities, particularly with the reconfiguration of some key routes, as recently proposed within the Slow Streets network for this locality.

Zabbar: The seventh largest town on the Island, with an estimated population of 15,648, the locality has several small and middle-sized businesses that primarily serve the local population. Transport and traffic consist mainly of commuting, local logistics and some tourist traffic. Its main thoroughfare is also highlighted in Transport Malta's Master Plan 2025 due to the high presence of vehicular traffic therein (in spite of being a local access road) in tandem with a high level of pedestrian-oriented activities and kerbside developments, creating similar points of conflict identified above in a number of other localities and demanding better mobility solutions and management. Right off the main residential zone of this locality, and in close proximity, lies Bulebel Industrial Estate, which is a sizeable industrial area characterised by a number of warehousing and manufacturing industries. This offers challenges both in terms of logistics and supply chains per se, as well as in terms of the compatibility with the rest of the locality close by.

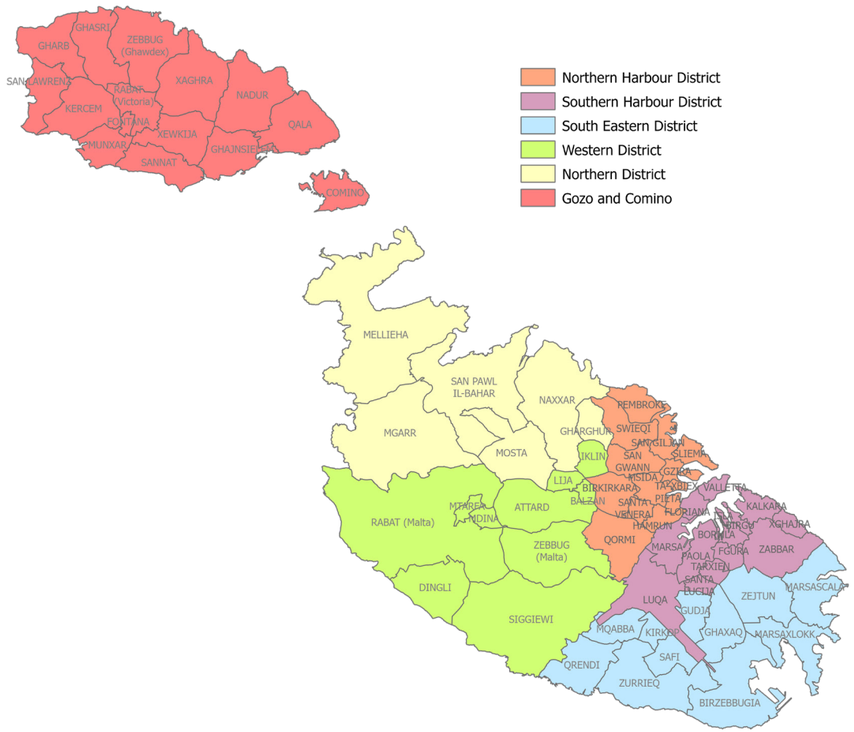


Figure 6: Map of Malta Local Administrative Units; the Valletta Region (in purple & orange) (Reproduced from source: NSO, 2017)

2.2 Resident and Visitor Population

Figure 7 shows the change in population over the years 2015-2020 for the different regions in Malta including the Northern and Southern Harbour regions. The Northern Harbour region, especially, experienced marked population growth over this period.

Being the capital city, Valletta is also the main governmental administrative centre as well as a major tourist and shopping centre in its own right. Due to this, the number of daily visitors to Valletta amount to five-times the resident population.

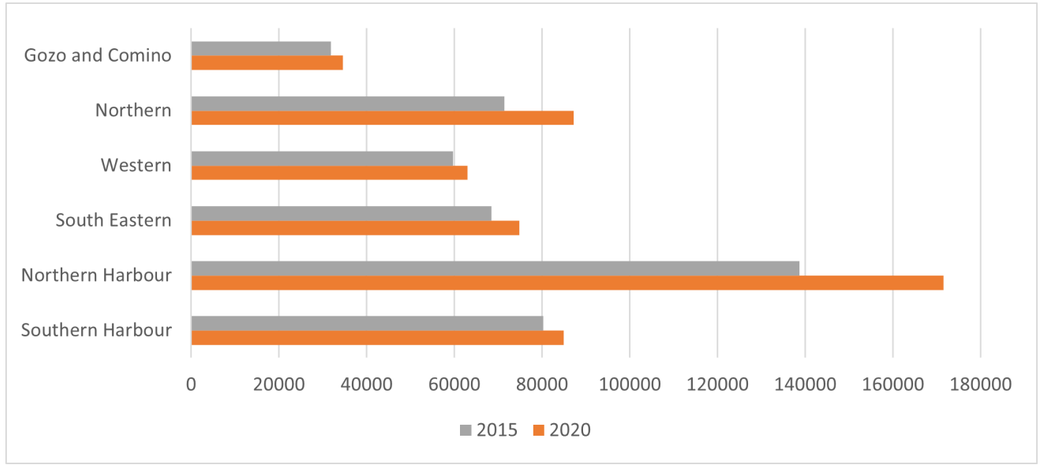


Figure 7: Change in population over the years 2015-2020 (Reproduced from source: NSO, 2021)

Apart from commuters who travel into Valletta daily to work, it has been recorded that 90% of all tourists who visit Malta also visit Valletta, making Valletta the most popular tourist attraction on the island. For the whole of Malta, tourist figures were drastically affected by the COVID-19 pandemic, as can be seen in Figure 8. However, the latest monthly figures for 2022 indicate tourist numbers have picked up and are gradually approaching pre-pandemic level observed in 2019.

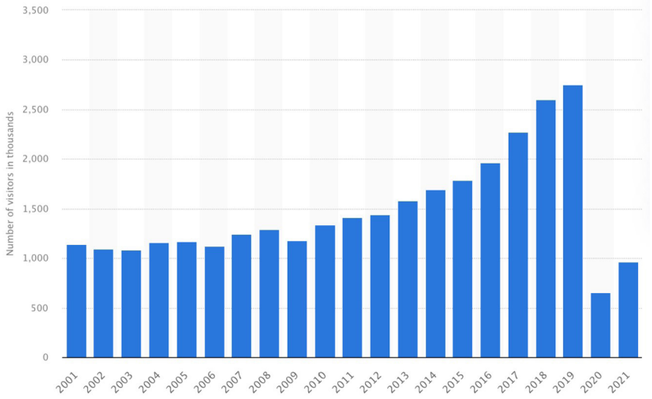


Figure 8: Increase in the tourists visiting Malta between 2001 and 2021 (Source: NSO 2022)

In recent years, cruise tourism in the Grand Harbour has increased. The cruise port is situated within the Grand Harbour, along the Southern Coastline of the City of Valletta. In 2016, 626,082 passengers passed through the Valletta Cruise Port, which increased to in 632,739 in 2018 and 598,837 in 2019[3]. Cruise passengers are contributing to the growth of day population and economic revenue in Valletta. However, this economic and transport demand is subject to strong seasonal variations.

In 2020 and 2021 due to the COVID 19 pandemic Cruise Liner passenger numbers diminished (see Figure 9). In 2022 the Cruise Liner passengers are recovering. During the period between January and September 2022 386,018 cruise line passengers came to Malta which is 64.4% of the 2019 pre-COVID total.

[3] *NSO, 2019 : Transport Statistics Cruise Passengers: Q4/2018.*

Figure 9: Cruise Liner passengers visiting Malta, by month, years 2016-2021 (Source: NSO, 2022: Transport Statistics Cruise Passengers)

2.3 Mobility and Traffic Policies

Malta's fleet shows a high number of personal cars. The NTS and the TMP both aim towards a reduction in the traffic related issues such as road congestion and car dependency. For Valletta, in the period between 1998 and 2010, a significant transport-related change was carried out, with the introduction of the Controlled Vehicular Access (CVA), together with other initiatives, such as the introduction of a park-and- ride scheme on the approach road to Valletta and the pedestrianisation of a number of streets within the capital city. These were all aimed at reducing the dependency of the car, especially on trips going into Valletta.

2.3.1 CVA Zone

The system, which was launched in May 2007, uses Automatic Number Plate Reading (ANPR) technology and dedicated camera systems to monitor and photograph vehicles entering and exiting the CVA boundary (Figure 10). The system then automatically calculates the time the vehicle stayed inside the Valletta CVA boundary and finally computes the fee due for access and parking based on the tariffs approved by Transport Malta.

Figure 10: The CVA boundary map showing the entry and exit points of the Valletta CVA boundary (Source: Urban Access Regulations in Europe, 2019)

2.3.2 Parking within the City

On-street parking in Valletta is split in three categories; white spaces are available for everyone, irrespective of the time, green spaces are reserved for Valletta residents; and the blue parking spaces are reserved for residents between 19:00 and 07:00, and available to commuters during the day between 07:00 and 19:00. The blue spaces amount to over 400 parking spots. Additionally, there are 510 on-street parking spaces (white spaces) available for visitors. The Floriana multi-storey car park (MCP), which is a walking distance from Valletta City Gate, has 1400 parking spaces.

There are limited off-street parking facilities inside Valletta. This is problematic mostly for lower Valletta due to the distance from the Floriana car parks. This creates intense parking pressures on the streets in lower Valletta and also along the shoreline. Despite positive developments on access including CVA[4] , park and ride (P&R), the MCP car park in Floriana, the Upper Barrakka lift and ferry services, these might not be enough to satisfy the increase in demand resulting from the regeneration of Valletta.

For access to parking and vehicle access in the pedestrian area, special rules apply, dependent on the time of day and the day of the week. Details on access regulations to the pedestrian area are provided in Table 2.

[4] *CVA access https://secure.cva.gov.mt/Static/Valletta_Parking_English_Advert.pdf.*

Day	Access to Pedestrian Zone
Monday	01:00 hrs – 09:30 hrs
	14:30 hrs – 16:30 hrs
Tuesday, Wednesday & Friday	01:00 hrs – 09:30 hrs
Thursday	01:00 hrs – 09:30 hrs
	14:30 hrs – 16:30 hrs
Saturday	01:00 hrs – 09:30 hrs
Sunday	No Access

Table 2: Access to Valletta for all vehicles, including freight and waste

2.3.3 Park & Ride

The Floriana P&R facility is situated on the approach road to the capital city. It offers a quick and low-cost solution to parking in Valletta and Floriana with over 750 parking spaces available. The fee is of €0.40 per day and includes a shuttle service to and from Valletta and Floriana. The service is available every day between 06:00 and 21:00. Despite the above-mentioned initiatives, dependence on the private car is still high.

2.3.4 Cycling

In the last decade, a number of dedicated lanes and bus lanes facilitating cycling have been incorporated into road infrastructure design. These cycle lanes are largely used by sports and leisure cyclists, but less so by commuters. Currently, there are 13 km of segregated cycle lanes, 9km under construction and over 60 kilometres of shared paths.

Figure 11 shows the spatial distribution of cycle lanes. This figure also shows the main employment nodes of the island with which the SUMP area corresponds and the employment density. The main working locations by employee numbers correspond to the main office, retail or tourism centres of the island.

In addition to the infrastructure, bike sharing companies are now operating in Malta and in the Northern and Southern Harbour Regions.

2.3.5 Walking

Malta can be considered as an island with one main urban area, which developed from a number of towns and villages each with their own centre having now grown into a continuous main urban area. Mapping a 10 minutes' walking radius from every centre illustrates that the majority of developed areas are within walking distance of a town centre (see Figure 12). This suggests that, from a mobility point of view, the spatial distribution of town centres in Malta and the comparison between urban fabric extent and pedestrian catchment area can trigger

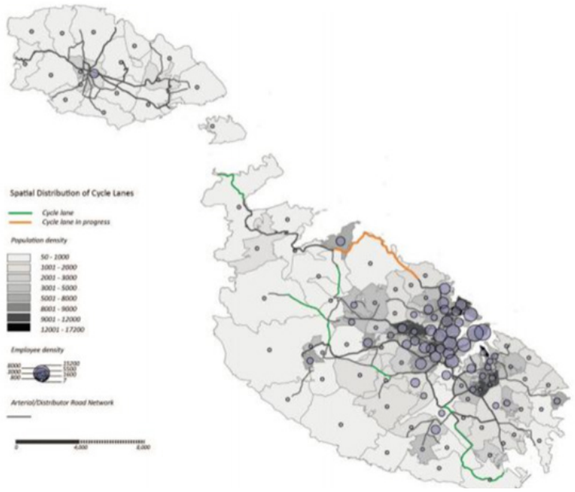


Figure 11: The spatial distribution of cycle lanes and employment density (Source: Transport Malta, 2016; National Transport Strategy 2050)

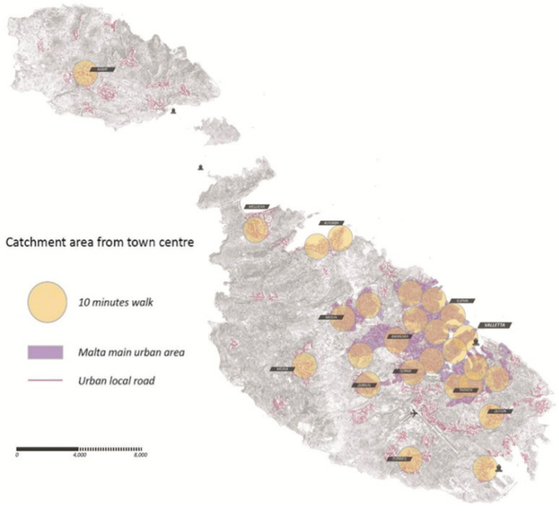


Figure 12: Areas within a ten-minute walk from a town centre (2014) (Source: Transport Malta, 2016; National Transport Master Plan 2025)

a significant potential for walking as a viable and convenient option for daily access to facilities such as health centres, childcare centres groceries, and other services.

There are many potential barriers to walking in the Northern and Southern Harbour Regions. High temperatures and a warm climate discourage many people from walking especially during the summer. In addition, the Valletta region has natural barriers, such as hills and valleys, and man-made barriers, such as busy multi-lane roads, that result in much longer walking routes than the ideal distance. Further investment is currently underway to upgrade walking paths and routes and develop missing links. Enforcement of walkway access is also a priority area.

Good examples of pleasant walking environments that encourages walking are the pedestrian zone in Valletta, the promenades at Dock 1 in Bormla and the stretch between Msida and St Julians.

2.3.6 Public transport

Scheduled public transport services consist of an extensive network of bus routes which include route services operating to and from Valletta and between other interchange hubs, express routes, on demand and night services. Currently, Malta is served with 104 bus routes, 6 of which are express routes offering direct connections

to the airport. Most of the routes which originate from Valletta pass through the inner and outer Harbour Region.

The bus network approximates 3,381 km – this figure includes the extension of each bus line in both directions. The average distance between stops is 445m which is fully in line with most typical European urban and peri-urban contexts. The analysis of accessibility on foot to bus corridors with a good frequency - and to bus stops in general- shows that areas with higher densities of population and employment are provided with a higher frequency of bus services. The Harbour region – where services heading to the Valletta hub converge – stands out in relation to bus service provision, with more than 20 bus passages per hour along the corridors Triq Marina, Triq L-Indipendenza and Triq Dicembru 13.

Figure 38.
Public transport frequency (2014)

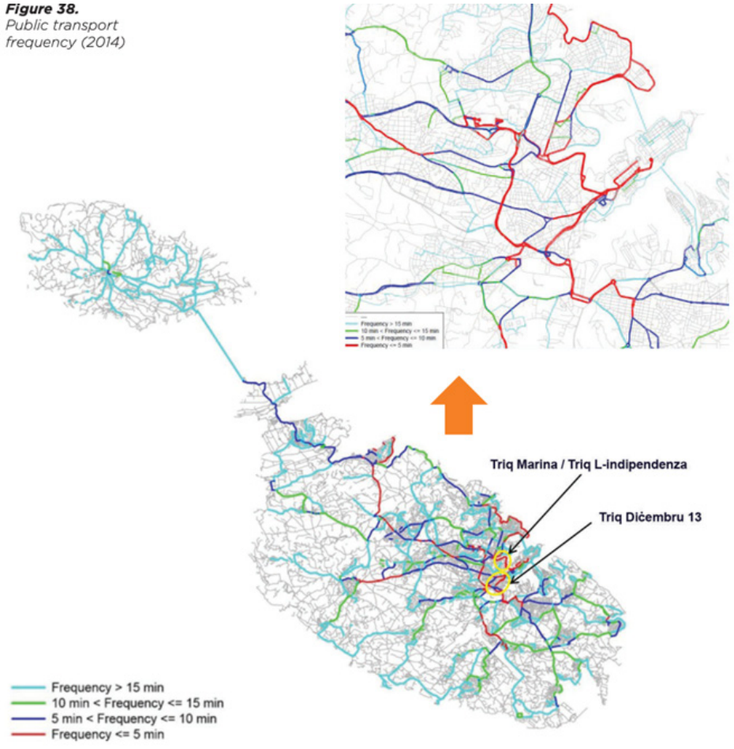


Figure 13: Bus frequency on the major bus route (Source: Transport Malta, 2016; National Transport Master Plan 2025)

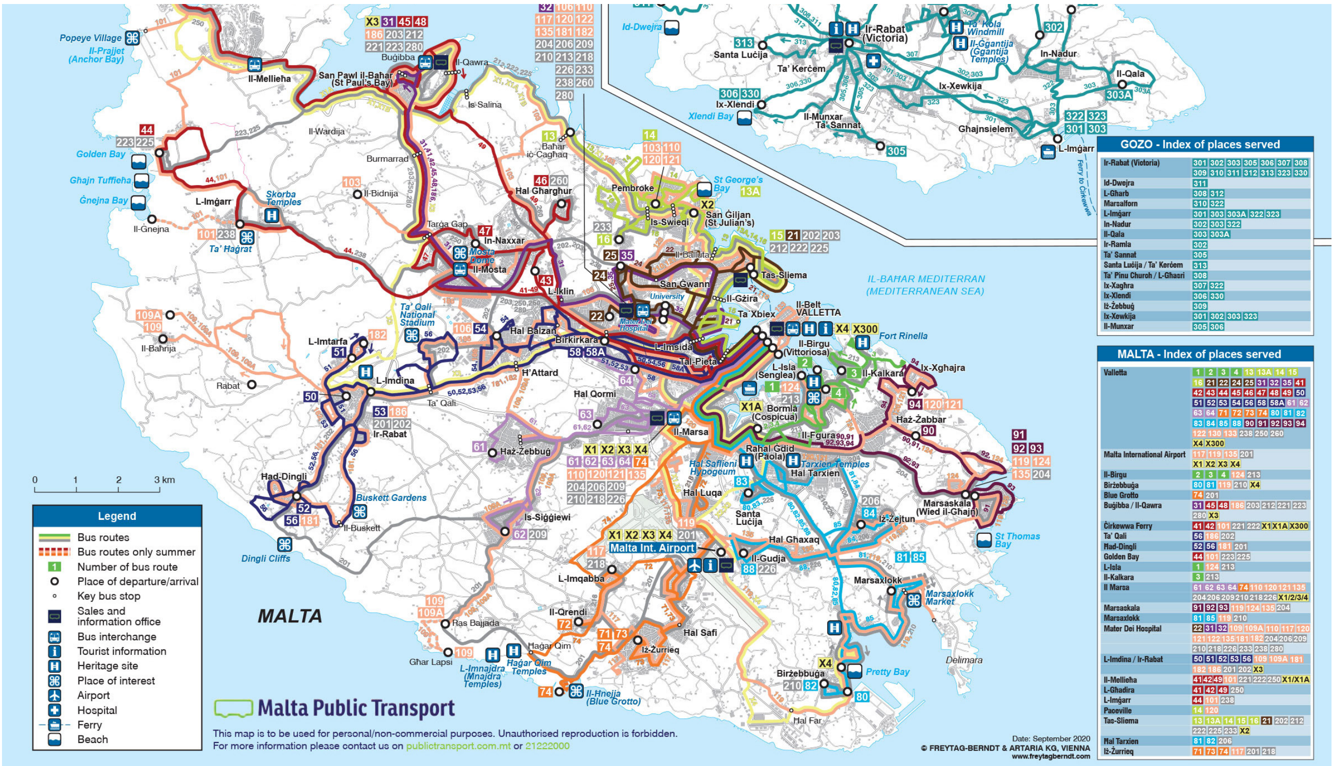


Figure 14: Major tourist areas and the bus routes, in the Harbour region (Source: Transport Malta, 016; National Transport Master Plan 2025)

2.3.7 Ferry Services

In these regions, there is a fast ferry service connecting Valletta to Mgarr Harbour in Gozo, and a Valletta Ferry Services operating between Valletta and The Three Cities (Cospicua), and between Valletta and Sliema.

The Malta-Gozo fast ferry is operated by two separate operators and was launched in 2021. It is used a lot by Gozitans who work or study in Malta, as well as for hospital appointments.

The Valletta ferry service aims to provide connectivity between the ferry quays (Sliema; Three Cities) and the centre of Valletta. The service operates during the day as well as during the night. The data presented in Figures 15 and 16 highlights that the ferry is a popular addition to the public transport network of the Valletta region. Holders of the personalized Tallinja Card have the benefit of faster boarding times and reduced fare.

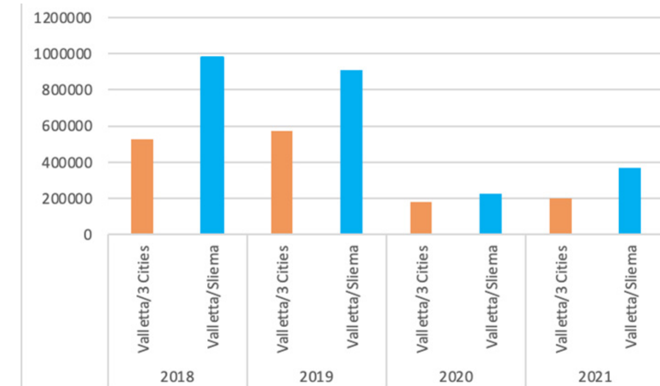


Figure 15: Valletta ferry usage 2018 - 2021 (Source: NSO 2022)

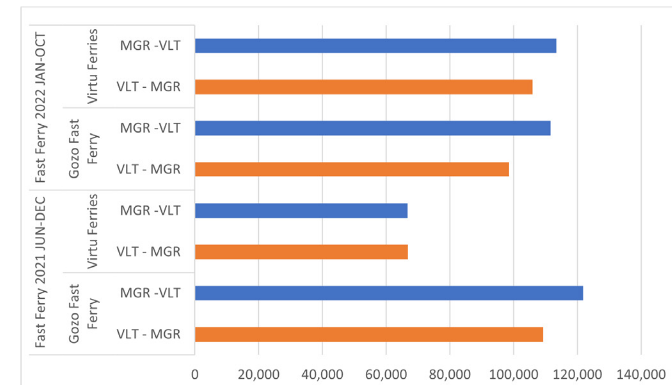


Figure 16: Valletta fast ferry usage 2021 - 2022 (Source: NSO 2022)

2.4 Main Mobility Problems and Challenges

2.4.1 Dominance of motorised road transport to access the Valletta Region

Typical for Malta, motorisation rates in the Valletta region are very high. In 2020, the rate of national motorisation stood at 780 motor vehicles/1000 residents (NSO, 2021)[5].

This represents one of the highest per capita rates of the 27 EU member states. Approximately 61% of residents aged 18 and over hold a driving license. At the end of the third quarter of 2022 there were 422,576 registered motor vehicles in Malta, most of which are passenger cars (74.9%). Commercial goods transport fleet accounting for 13.6% of the total stock of licensed motorised road vehicles.

Several bus routes connect dense urban areas and converge along strategic corridors and within Inner and Outer Harbour region.

The increasing volume of traffic on the roads is closely associated with this growth in private car ownership and usage. Nationally, private cars accounted for over 83% of the vehicular traffic composition on Maltese roads during a typical weekday[6].

A direct comparison between the growth in vehicle ownership and demographic trend shows that the number of passenger cars has been increasing at a rate that exceeds population growth.

Table 3 shows the newly registered vehicles for the Northern and Southern Harbour regions. More than 8000 new passenger vehicles were registered between 2017 and 2019, with a peak of c. 8,800 in 2018. There was a decline in 2020 due to the pandemic and related uncertainty and supply chain issues.

[5] *NSO, 2022: Transport Statistics Cruise Passengers: Q3/2022.*

[6] *Transport Malta 2016; National Transport Master Plan 2025, p.7*

Day	Districts Southern Harbour Norther Harbour	Agricultural	Coach and private bus	Minibus	Route bus	Motorcycle / E-bike	Passenger car	Goods carrying vehicle	Special purpose vehicle	Road tractor	Total
2017	Southern H.	3	0	13	0	395	2,513	347	35	16	3,322
	Northern H.	2	1	18	28	942	5,509	600	30	15	7,145
2018	Southern H.	6	2	11	0	485	2,719	433	35	15	3,727
	Northern H.	4	0	24	8	1,034	6,070	679	50	17	7,902
2019	Southern H.	6	5	50	0	435	2,594	397	38	12	3,540
	Northern H.	2	6	43	46	991	5,559	713	73	26	7,480
2020	Southern H.	8	1	35	0	337	1,956	370	46	14	2,779
	Northern H.	12	0	26	52	836	3,803	511	45	17	2,779

Table 3: Newly registered vehicles, including freight vehicles, by district, between 2017 and 2020 (Source: NSO; Transport Statistics 2018, 2020, 2021)

Congestion

The high value that society places on time, convenience and flexibility combined with high levels of access to private vehicles have resulted in increased car dependency for short trips, giving rise to problems of traffic congestion, public transport unreliability and a decreased use of alternative modes. Bottlenecks and congestion need to be addressed by a mix of short-term immediate measures (such as new infrastructure and; increasing capacity) and, medium to longer term measures such as demand management and space constraints. The comparison between traffic flows and road capacity indicates that congestion problems during the most critical morning peak hour arise primarily in the central section of the TEN-T network, particularly around Marsa, Santa Venera, Qormi and Kappara (all located within the SUMP area), as well as the distributor linkage between the airport and the urban centre of Qormi. There are also congestion problems on certain sections of the roads in the coastal area of Sliema, on the radial axis towards the Valletta / Floriana Peninsula as well as on different urban sections in the Inner Harbour.

Notably, the problem of congestion within the city of Valletta is not as acute as in other towns and villages around Malta; this is due to the pedestrianised zones, the access charge applicable to most vehicles, the high accessibility to the city by public transport as well as the parking availability outside the city gates. However, parking provision within the city is at saturation level, and a high incidence of traffic occurs within the city in search of parking.

The narrow streets are inaccessible to heavy goods vehicles and coaches, which has led to their prohibition from entering the city. Smaller waste collection vehicles do however enter the city.

Accessibility

One main existing challenge at regional levels is that streets are seen as an extension of the road network and car parking is everywhere. The ad hoc application of parking principles particularly in harbour localities and other congested areas and the lack of effective parking control and restraint, over the years, only served to encourage increased car use. This in turn led to an overspill of parking onto roads and the conversion of many urban roads to one-way streets to provide more parking availability which effectively resulted in the narrowing of urban roads, limiting space for buses, pedestrians and cyclists . The accessibility is improved by the introduction of car- and bike sharing initiatives and transport on demand services. These 'new' ways of transport diversify the total mobility situation and improve the accessibility of the Valletta Region for residents, workers and tourists.

Modal split

The National Household Travel Survey 2021 shows the mode of transport used for different trips in relation to the surveyed sample.

Table 4 indicates the modal split and modes of transport used for trips in the Valletta Region as of 2021, compared with the modal share of Malta. One needs to keep in mind that Covid might have impacted the results.

Table 5 shows the number of trips generated by district of residence and mode of travel in the earlier 2010 National Household Travel Survey. The data refers to Valletta, not the Valletta region.

Mode of transport	Mode share Southern Harbour	Mode share Northern Harbour	Mode share Malta
Private vehicle	82%	80%	84%
Bus	7%	6%	5%
Walking	7%	10%	7%
Other	4%	4%	4%

Table 4: Modal split of trips by district of residence and Malta as a whole (Source: NHTS, 2021)

Mode of transport	Mode share for trips to Valletta	Mode share Malta
Car driver	30.9%	59.9%
Car passenger	9.8%	15.2%
Motorbike	0.1%	1.1%
Bus	53.0%	11.3%
On foot	2.0%	7.6%
Other	0.2%	1.7%

Table 5: Modal split of trips ending in Valletta, (Source: NHTS, 2010)

The tables show that there has been a substantial increase in trips by private vehicle in Malta during the 10-year period between both surveys. Such data highlights a need for measures to reduce dependence of private vehicles and encourage residents to use public transport again.

A recent significant measure is the free travel scheme which came into effect from 1st October 2022 allowing Tallinja card holders to travel for free on most routes. Additionally, government and the public transport operator have announced plans to start the process of electrifying the bus fleet.

2.4.2 Air Pollutants and CO2 Emissions in the Transport Sector

The Northern and Southern Harbour districts represent the most densely populated region of the island, and this region hosts the highest concentration of industry, employment nodes, tourist attractions, entertainment districts and retail outlets, amongst others. As a result, the area also suffers from the highest concentration of traffic congestion and therefore also the highest concentration of traffic generated emissions.

Specifically for Valletta, flanking both sides of the city are the two harbours. While on the northern coast, the Marsamxett Harbour hosts mainly yacht marinas and tourist trips, the Grand Harbour (on the Southern Coast) hosts the main cruise ship berths, certain cargo vessels, the Gozo fast ferry services, the Valletta 3 Cities ferry services and the Malta-Sicily Ro-Ro service, among others. The Valletta Grand Harbour forms part of the European TEN-T comprehensive network. In relation to NOx emissions, Valletta and its surrounding region are the most polluted localities in Malta. Figure 17 shows average NO_2 emissions levels in the year 2021 according to the Environment and Resources Authority. PM_{10} and $PM_{2.5}$ are also relevant air pollutants for Valletta.

For fuel consumption, data available at the country level shows the dominance of transport fuel. Table 6 presents the fuel types for Malta's road transport vehicles. On a positive note, Malta is heavily investing in the use of electric vehicles for passengers and goods transport.

The positive effects of the electrification of the Maltese fleet, improved engine performance of new cars, and public transport modernisation, are altogether significantly beneficial for reducing emissions, but effort is still required to compensate for the concurrent strong growth in vehicle numbers.

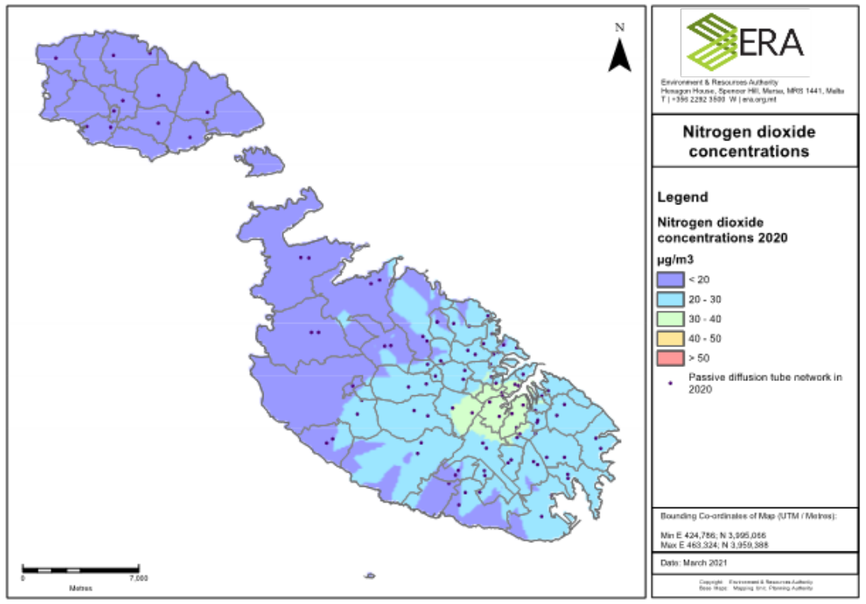


Figure 17: The spatial trends of NO2 in Malta 2021 (Source: NSO, 2022)

Table 7. Stock of licensed motor vehicles by motor energy type and vehicle category as at end Q3/2022

Vehicle category	Petrol	Diesel	Electric	Mild Hybrid (Petrol-Electric)	Mild Hybrid (Diesel-Electric)	LPG	Combined (Petrol-LPG)	Combined (Diesel-LPG)	Plug-in Hybrid (Petrol-Electric)	Plug-in Hybrid (Diesel-Electric)	Total
Agricultural	29	2,459	-	-	-	-	-	-	-	-	**2,488**
Coach and private bus	-	338	-	-	-	-	-	8	-	-	**346**
Minibus	12	1,542	5	-	-	-	-	4	-	-	**1,563**
Route bus	-	445	8	-	-	-	-	-	-	-	**453**
Motorcycle/E-Bicycle/PA-Bicycle	37,162	17	2,281	-	-	1	-	-	-	-	**39,461**
E-kick scooter	-	-	2,820	-	-	-	-	-	-	-	**2,820**
Quad and ATV	1,149	-	193	-	-	-	-	-	-	-	**1,342**
Passenger car	208,572	95,391	2,559	5,205	223	5	1,829	3	2,676	19	**316,482**
Goods-carrying vehicle	1,523	50,536	161	1	8	4	47	21	3	-	**52,304**
Special purpose vehicle	57	3,916	80	-	-	98	12	4	-	-	**4,167**
Road tractor	1	1,147	-	-	-	-	-	2	-	-	**1,150**
Total	**248,505**	**155,791**	**8,107**	**5,206**	**231**	**108**	**1,888**	**42**	**2,679**	**19**	**422,576**
% change over Q2/2022	**0.6**	**-0.1**	**13.7**	**9.6**	**16.7**	**0.9**	**1.7**	**5.0**	**15.9**	**58.3**	**0.8**

Table 6: Fuel type in Malta, by vehicle type (Source: NSO, 2022)

2.5 Major Concerns Raised by Stakeholders

The initial consultations resulted in six themes being identified: urban traffic congestion and parking issues, land and maritime public transport, soft modes infrastructure (walking and cycling), mobility management, the smart city concept, and alternative modes of transport.

Road congestion and safety problems:

- Excessive traffic volumes.
- Public transport not being considered as a reliable alternative to the private vehicle.
- The density of traffic affects soft modes in becoming more undesirable and less safe.
- Safety is a major barrier for people to cycle (more).

Parking and enforcement problems:

- Illegally parked cars cause congestion.
- Number of parking spaces does not proportionally increase with the number of residents.
- Misuse of bus lanes by the general public.
- Lack of enforcement of priority lanes.
- General lack of consideration for traffic and parking regulations.

General public mentality on mobility:

- Road users do not follow the proper road guidelines and regulations.
- Problematic road behavior by both residents and delivery services.
- Lack of driver education in relation to traffic rules and the use of other modes of transport.
- General public prioritizes parking over stimulation of active modes (walking and cycling).
- Car-oriented culture and lack of willingness to change.

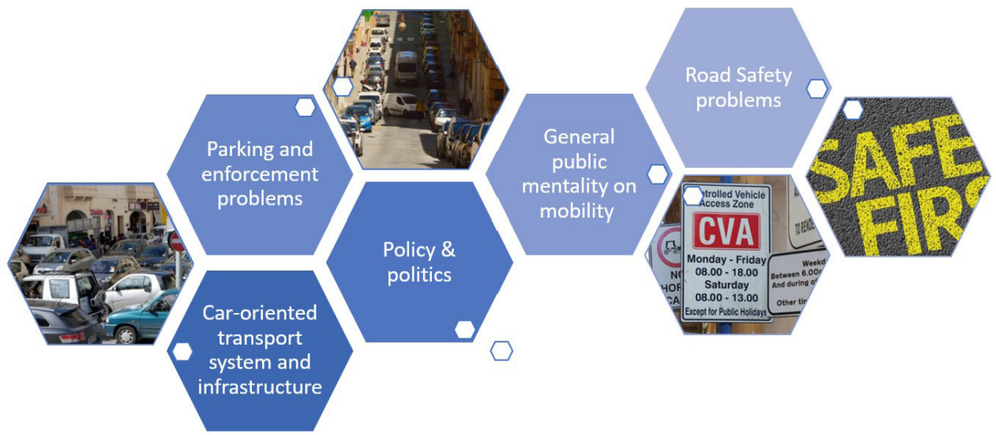


Figure 18: Outcomes of the first stakeholders' session (Source: Own figure)

Car-oriented transport system and infrastructure:

- Congestion on the roads in general, especially around commercial areas and construction sites.
- Under-usage of maritime transport and Park & Ride facilities.
- No viable alternative present in Malta to private cars.
- Insufficient and inadequate infrastructure (quality and quantity) for pedestrians and cyclists.

Policy & politics:

- More consideration required for space management and design guidelines for footpaths and cycle lanes.
- More infrastructure funding needed by Local Councils.
- Increased provision of traffic data and monitoring of both freight and other mobility movements.
- More national consideration to be given to sustainable modes of transport.
- More effort necessary to address different levels of bureaucracy.

2.6 Gap Analysis

To identify the bottlenecks and the missing links or measures, a gap analysis exercise was carried out. Based on these aspects, a number of themes have been analyzed for existing gaps. The gaps are presented visually in the maps that follow.

2.6.1 Parking

The parking situation is complex throughout Malta, but more pronounced in the Northern and Southern Harbour Regions The most common issues are related to insufficient parking spaces and, where sufficient supply is available, this does not meet the demand fluctuations at certain times during the day. In some areas most of the parking places are always occupied. Public parking is free of charge throughout the islands. The only paid-parking facilities are privately owned, and these include parking spaces both in garages and open areas.

Specifically in Valletta, the CVA system is operational where vehicles pay a fee which is calculated upon entrance to Valletta. No fee is charged on weekends and public holidays, and for entrances after 14:00 during weekdays. Otherwise, fees are not charged for the first 30 minutes upon entry and the maximum fee is €6.52. This can be considered as a form of paid on-street parking.

The capacity of parking spaces in the Valletta region does not satisfy the demand, with this becoming even more challenging as, on the one hand, people prefer to travel to this region by car, but at the same time finding available parking spaces is difficult. Additionally, new buildings both for residential and commercial purposes are not providing adequate parking facilities in terms of supply, with applicants for development planning applications opting to pay the financial contribution to the

Development Planning Fund rather than providing on-site parking facilities above or below ground. These new developments attract even more people to this area, putting additional pressure on existing parking infrastructure. This lack of adequate supply further impacts traffic within the area through commuters driving at very low speeds as they search for available parking spaces, causing dangerous traffic situations and increasing pollution. This is a general situation throughout the region, but most pronounced in Valletta, Floriana, Sliema and Qormi. There is ample scope to study the parking phenomenon further, in order to obtain appropriate data in relation to the current state of affairs and inform a strategic approach to parking. This data will relate to aspects such as the cumulative impact of planning decisions in terms of parking provision (or lack thereof), on- and off-street parking availability (general and dedicated), and communal public and private parking facilities.

Park&Ride facilities are available in Floriana and Marsa, the former lying just on the outskirts of the city of Valletta and the latter more recently introduced as part of the Marsa junction project, both lying within the inner Harbour Region. These facilities are well used and provide a shuttle service to Floriana and the Valletta Bus Terminus (with an extended service to the route to Castille & Pjazza San Gorg in Valletta at specific times), at a nominal fee of €0.40 per day (including a shuttle service to and from Valletta and Floriana). Two other Park&Ride facilities, in Pembroke and Qormi, have been less successful. In Qormi, the P&R facility, well positioned in the proximity of a number of medium- to large-scale commercial uses, has been changed into a bus depot.

There is scope to study such interchange points better, with a particular focus on the periphery of the Valletta region, as this may alleviate vehicular traffic off key routes which may in turn be liberated for other purposes, most notably dedicated bus and cycle lanes that could extend for a longer trajectory. This is pertinent given that, particularly in the case of the Floriana P&R facility, cars enter the heart of the Valletta region from its outskirts, and travel along a significant vehicular route (occupying a large cumulative amount of road space, to arrive at a facility which is in close proximity to the final point of destination, Valletta. Through the collection of appropriate data in terms of parking patterns and the study of demand/supply chains, it may therefore be possible to identify strategic P&R facilities coupled with an identification of strategic dedicated routes for more sustainable modes of travel. While reducing unnecessary vehicular traffic on the Valletta region's road network, due to their chosen location, such facilities could offer more than one interchange option and be positioned in a manner that enhances the region's connectivity to other regions.

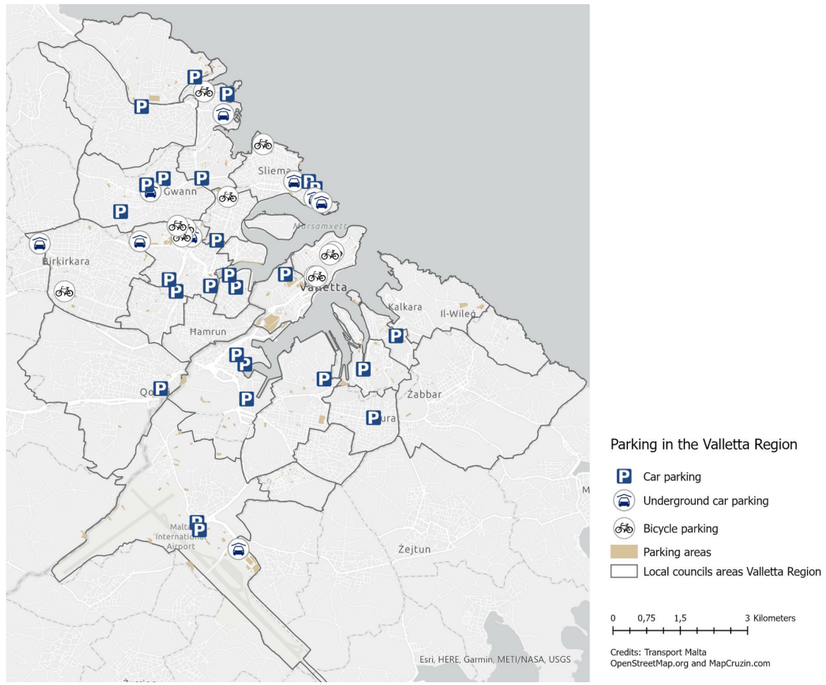


Figure 19: Parking facilities in the Valletta Region (Source: Own figure)

Based on the current situation as described above and shown in Figure 19, the following can be concluded:

- The number of parking spaces is limited and insufficient for the existing number of cars requiring parking facilities.
- The pressure on the parking facilities is caused by the increasing number of cars within the modal split of Malta. Changing this requires a behavioural shift which is not easily achieved.

With regard to parking designated for EVs, the NTS considers the electrification of transport and includes guiding points on tackling challenges related to this and the related logistics and adequate management.

2.6.2 Cycling

Cycling in Malta, and not least in the Northern and Southern Harbour Regions, is limited. Despite experiencing an increase in the recent years, it still makes up a minimal share of the total modal split. While cycling for commuting purposes is increasing, it is still mainly associated with recreation and sports. This can be attributed to the topography of the islands as well as the hot summers that typically characterize the Maltese climate, making cycling challenging even for shorter trips. Furthermore, a lack of cycling culture exists, which hinders the growth of bicycle usage. When combined, these factors do not act as a good driving force for increased active mobility.

Such limitations are not exclusive to Malta but are also common in other countries and cities throughout the world. Behavioural change is the key, but it is also very difficult to attain. However, in recent years the potential of the bicycle is being recognized, especially for trips with distances of up to 7 kms. With the introduction of the e-bikes, longer trips are being made of up to 12-15 kms, also facilitating increased uses in hilly topographies and warmer climate. In cities all over Europe, the dependence on the private car is being restrained in favour of alternative modes. In Malta, the promoting and fostering a cycling culture are ongoing.

Being one of the most popular options in the urban environment, cycling is a promising alternative, even in Malta. The development of a SUMP is speeding up this shift. From an infrastructure perspective, a number of designated traditional cycle lanes are in place in Malta, with further designated cycle lanes being planned for implementation. However, these cycle lanes are not interconnected and are limited in length. In addition, most of these are located instead on the arterial and distributor road network as well as along the TEN-T Network.

On the map (see Figure 20), the existing cycle paths and the existing bicycle parking locations are shown. The routes form the first steps to a bigger share of cycling within the modal split. More cycling routes are planned (see Figure 20).

Based on the current situation, the following can be concluded:

- The number of segregated cycle lanes and dashed lanes is limited.
- The number of alternative infrastructural measures for cyclists is also limited.
- The main target groups for the uptake of cycling are commuters, who currently make up the smallest segment.

Figure 20: Cycle lanes and bicycle parking in the Valletta Region (Source: Own figure)

2.6.3 Car- and bike sharing

Car-sharing

Car sharing had been introduced in Malta in November 2018. This carsharing initiative was overseen by Transport Malta where a concession was being executed by a private firm. On 30 September 2022 GoTo ceased operations citing financial unsustainability worsened by the pandemic.

At inception, the service included a fleet of 250 fully electric cars and 200 electric mopeds. An app was used to reserve and locate the vehicles as well as opening the vehicle and for payments. Residents as well as tourist were able to trial and use cleaner

means of transport thereby facilitating the familiarity of electric vehicles. The service aimed to introduce the general public to electrified transport thus becoming more accustomed to an electric car prior to investing in such vehicles. The carsharing service also aimed to encourage people to share a vehicle when one needs to use a car, rather than purchase a new car for individual use. Considering that research shows that between 85% and 90% of its lifetime, a private passenger car is not being used, such services can provide a better option to the community.

Bike-sharing

In Malta bike sharing is provided by private industry.

These initiatives fill a gap in the total mobility scheme in the Valletta Region, which seem to be adequately addressing the demand at the moment.

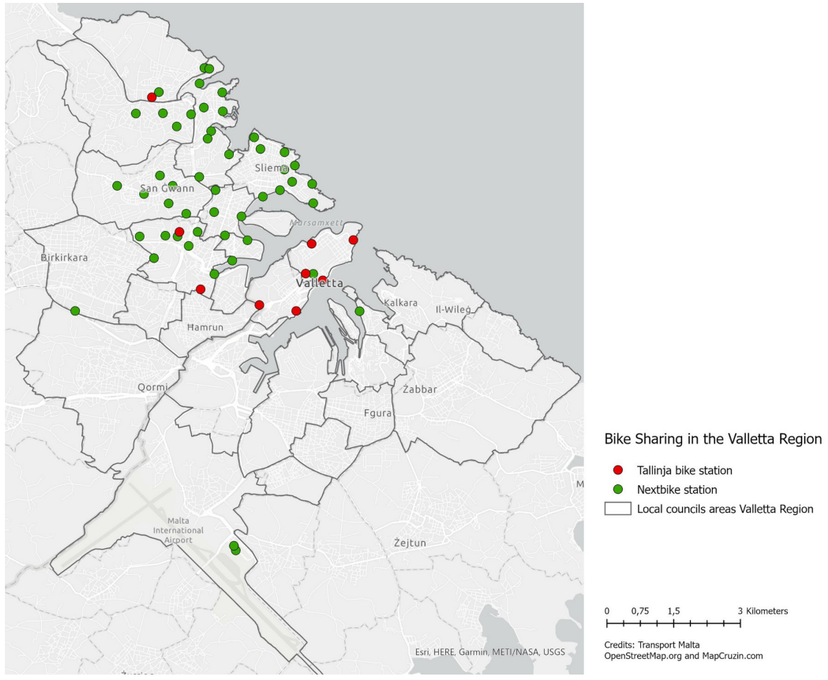


Figure 21: Bike sharing stations in the Valletta Region (Source: Own figure)

2.6.4 Low Emission Zone

In a great number of cities around Europe, Low Emission Zones (LEZs) have been introduced. LEZs refer to areas where the most polluting vehicles are regulated. This is usually implemented via restriction of vehicles with higher emissions. In some LEZs the more polluting vehicles have to pay more on entering zone. Road signage is generally installed to indicate the vehicles affected and LEZ rules would usually only apply to trucks and coaches, and sometimes also to diesel-powered passenger cars and vans. Municipalities create these zones to improve the air quality within their cities. Currently, no LEZ system is in operation in Malta. Valletta, however, has a CVA (Control Vehicle Access) System, as previously explained.

2.6.5 Electric Vehicles

The transport sector is the largest contributor to EU greenhouse gas emissions; therefore, reducing transport emissions is key to meeting emission reduction and climate change mitigation targets. The EU legislation currently sets targets to cut CO2 emissions from cars by 37.5% and vans by 31 % by 2030 whilst discussion are underway to further increase the reduction targets to 55%, as well as ban the sale of new ICE vehicles as of 2035 (100% reduction). (EEA, 2019; EU, 2019). A massive increase in the uptake of electric vehicles and other zero-emission technologies will be crucial to achieving these goals.

Electric cars battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) — are rapidly penetrating the EU market. In 2021 they accounted for 17.8% of total new passenger vehicle sale). In Malta the share of BEVs and PHEVs is relatively high (see Figure 22), which can be attributed to the positive impact of the Government grants for the purchase of such vehicles. Whilst the absolute number of electric vehicles is still low, in terms of newly purchased vehicles the Maltese percentage share is approximately 8% for new BEVs and 12% for new PHEVs.

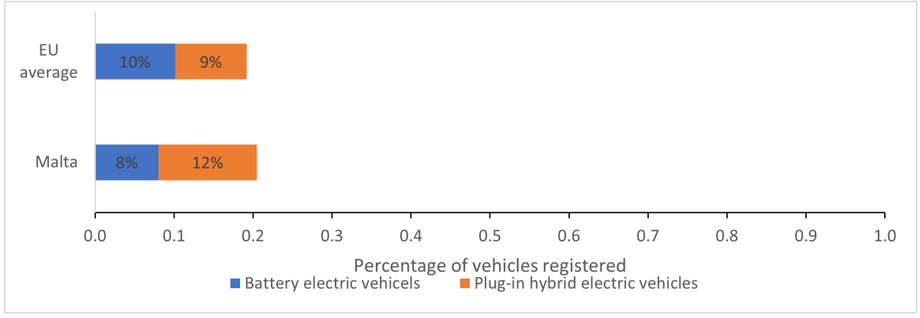


Figure 22: Number and percentage of vehicles registered in Malta verses EU average (Data source: European Environment Agency 2020).

The total number of EVs in Malta is approximately 8,100 (NSO 2022). E-kick scooters make up the majority of 2,820 vehicles followed by 2,559 passenger cars and 2,281 motorcycle/E-bicycle/PA-bicycles. One of the main challenges in Europe and also in Malta is the price of electric cars, since it is still very high in relation to ICE vehicles.

To promote the ownership and usage of EVs in Malta, TM has continued to provide grants. These vary according to the category of cars. EVs are exempted from paying registration fees and licence taxes and the usage of the CVA in Valletta is not charged. The Ministry for the Environment, Energy and Enterprise has also been investing in public charging stations, as well as launching a policy which will crowd-in private investment in such infrastructure.

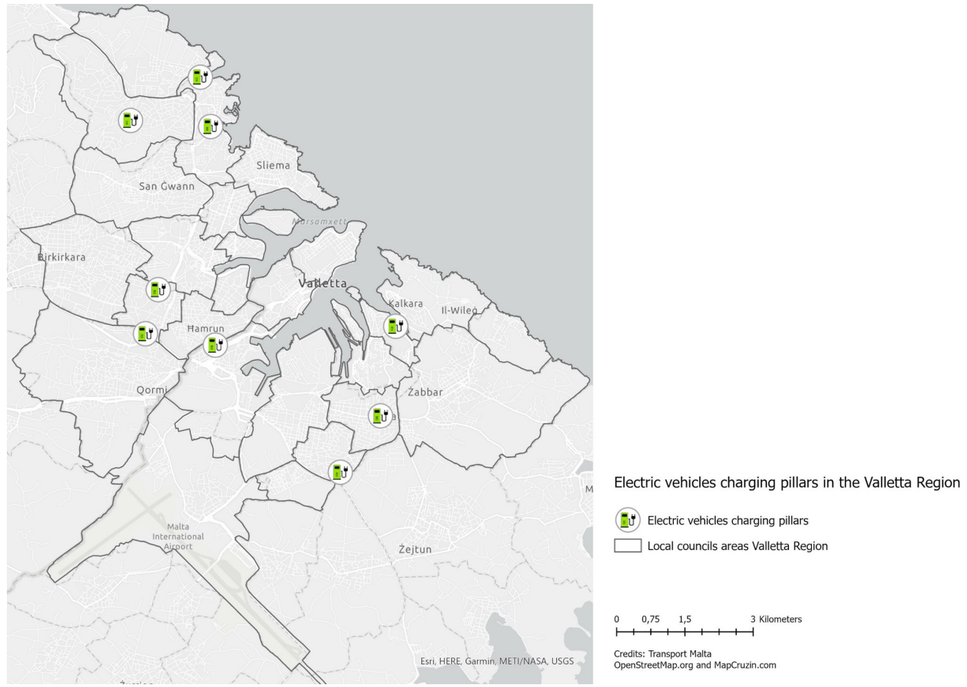


Figure 23: EV charging pillars in the Valletta Region (Source: Own figure)

2.6.6 Urban Logistics

In Malta, there is currently no overarching, planned system for deliveries in place although, as part of this ongoing exercise a Sustainable Urban Logistics Plan shall be developed for all regions of the Maltese Islands. Currently, each business coordinates its own deliveries from multiple suppliers; moreover, several suppliers offer their own delivery system.

To re-organise the supply chain, the use of logistic depots for urban deliveries proves to be an effective and profitable solution in numerous European cities. Such an Urban Consolidation Centre (UCC) is not in use in Malta but could fill a gap in a more efficient and sustainable solution for the current situation. For these two regions an initial overview has been carried out with the aim of obtaining an indication of the logistic traffic and delivery characteristics. The main findings of this research were:

1 Many towns have access difficulties due to heavy traffic and congestion. Furthermore, the number of loading bays and parking space is limited, especially on the side roads and non- pedestrian streets. This leads to frequent unloading in double lane, double parking.

2 The distance between unloading places, such as loading bays, and final customer entrance doors, is long. Due to this long walk, the delivery vehicle is parked for a longer duration with the delivery company experiencing time loss.

3 Multiple rules and signage influence access to pedestrian zones and to street parking locations. The observations in 2017 showed different vertical and horizontal street signs. New signage will clarify the situation.

4 Further work on this shall be carried out which will eventually result in a fully fledge SULP for the Northern and Southern Harbour Region.

2.7 Conclusions

All regions in Malta a continuous tension between the space available and the high utilisation of the land and infrastructure. This leads to challenges, the most prominent of which are congestion, lack of parking spaces, limited accessibility of major destinations and increased negative impacts on the environment and livability.

However, with initiatives such as the present one where measure are not taken in isolation but in a holistic and consolidated approach, there is an increased possibility of success and amelioration of our air quality, commutes and congestion levels.

3

SCENARIOS

3.1 What is meant by Scenarios?

Scenarios help to improve the understanding of what urban mobility in a region could look like in the future. In this way they can be employed to inform and inspire the subsequent development of the vision.

A scenario is a description of a specific set of developments in the future which are relevant to urban mobility, including the likely effects of external factors (such as demographic and economic circumstances), as well as those of strategic policy priorities (such as a strong active mobility or electromobility focus).

Scenarios help to better understand the likely effects of external factors that affect urban mobility (such as changes in climate, information technology, finance and security) in combination with alternative approaches to react to them. Illustrating different possible future situations allows planners to assess consequences of current trends, potential societal and local changes, as well as alternative strategic policy priorities, independently of each other. Examining the effects of these different scenarios strengthens the factual basis for strategic decisions.

The main aims of using scenarios are to:

- Understand the risks and opportunities related to current trends and possible changes of circumstances.
- Develop alternative scenarios that inform about the likely impacts of different strategic policy directions.
- Create a factual basis for the subsequent development of a vision, objectives and targets.

For this SUMP, given that it reflects the most densely populated area of Malta and, considering that it holds the highest concentration of touristic resorts and activities, three scenarios were defined:

- a baseline-scenario,
- a tourism scenario, which is concentrating on developments concerning a growing number of tourists travelling to Malta and Valletta and the implications for the city as a whole and of the transport infrastructure in particular,
- a clean and efficient transport scenario, which includes a focus on active transport, clean vehicles and a less important role of private car ownership.

The different scenarios and the impact on citizens, businesses, tourists and other stakeholders were discussed as part of the process leading to the development of the SUMP vision, objectives and measures. This process helped build awareness of the interdependencies and trade-offs between different policies and their impact on key stakeholders, the complexity of the strategic decisions to be taken, and the risks faced. Such an approach enabled a wide variety of

actions to be considered beyond a business-as-usual baseline scenario, with the aim of identifying objectives, targets and measures packages which can work in sync for a wide group of stakeholders, while taking into account possible outcomes. As part of the scenario analysis, international mobility trends in other international cities were also taken into account, to provide perspectives on both challenges and opportunities that such scenarios could present.

3.2 Baseline Scenario

Baseline scenarios (also known as 'reference', 'benchmark' or 'non-intervention' scenarios) depict a future state of society and/or environment in which no new environmental policies are implemented apart from those already in the pipeline today; or in which these policies do not have a discernible influence regarding the questions being analysed.

Baseline scenarios are considered an essential point of reference in policymaking, planning and investment – a baseline to compare alternative scenarios, or a starting point for the analysis of a system.

Within the baseline scenario, trips with the private car will continue to grow while other modes remain unchanged, therefore leading to an increase in the modal share of the car. Further transport infrastructure will continue to be developed; however, congestion and bottlenecks will remain, as the number of vehicles on Malta's roads continue to increase. Active mobility infrastructure will remain limited, as new infrastructure will continue to give priority to vehicles to ensure that private vehicle use is as efficient as possible. The number of bus passengers will increase as tourism rebounds to pre-COVID levels, economic growth will be supported through more foreign workers which will further increase Malta's population; however, the increase in both users and private road vehicles, will offset any efficiency gains from a larger public transport fleet. No new forms such as mass transit systems are introduced.

3.3 Test Scenario: Tourism

Though COVID-19 had significant impact on the tourism sector in Malta, the sector is expected to rebound strongly in the coming years as already indicated by the increase in tourists seen in 2022. Notably, prior to COVID-19, a record 2.8 million tourists were registered in 2019.

The growth in tourism will impact all parts of the country and the mobility network. The most acute pressures are faced in the Northern and Southern Harbour regions, which includes Valletta, the airport, the Grand Harbour, the Three Cities and, the key accommodation and entertainment destinations of Sliema and St Julians. The number of hotels, holiday accommodation, bars, restaurants and other tourist related activities continues to grow in these areas.

Moreover, a number of large-scale mixed-use developments continue to drive more workers to these same locations accompanied by an increase in expatriate workers who in/directly service the tourism industry. Transport is already identified as an area that requires strong focus though tourism satisfaction surveys carried out by the Malta Tourism Authority (MTA).

The key mobility implications of this scenario include:

- Significant increases in the number of users of public transport, namely, the bus service, and the fleet size required to service them.
- Significant increases in the number of licensed taxi / ride-hailing vehicles servicing the Valletta Region.
- Significant increases in demand for ferry services and routes / landing areas across the Valletta Region.
- More cruise ships leading to an increase in the number of daily visitors leaving for Valletta on foot, or coach / taxi services from one of Valletta's two key exit points.
- More pedestrians in key tourism and entertainment related areas.
- Significant increases in the number of users and micro-mobility related equipment (bikes and scooters).
- Significant increases in the number of rental cars and mopeds.
- The number of tourists citing mobility as a factor which they are dissatisfied with continues to increase.

- Maltese citizens visit key tourism and entertainment hotspots less frequently due to congested roads and limited parking availability. Regular motorized traffic will experience longer travel times at certain sections of the network.

The following measures are foreseen under this scenario:

- Dedicated bus priority lanes are expanded across most localities in the region and the fleet is significantly expanded.
- Improved active mobility corridors are developed and focused primarily on key tourism zones to minimise road transportation usage by tourists in these areas to the best extent possible.
- More roads in tourist hotspots are (semi) pedestrianised to further increase the outdoor seating capacity and zones for cafes, bars and restaurants.
- Further traffic calming measures including speed cameras, traffic lights and pedestrian crossings are introduced in tourism hotspots to improve pedestrian safety.
- Micro-mobility services including scooter and bike sharing schemes are expanded in key tourism zones. Parking / storage spaces for such transport options are expanded considerably, further reducing on-street parking in these areas. Policies and regulations are revised, and dedicated lanes for their usage are introduced on key sections of the main touristic promenades and road network.
- The ferry network and the number of water-based taxis in the Valletta Region are expanded to meet tourist demand, and new quay infrastructure is developed in additional localities within the region.
- Digital applications support seamless inter-modal planning, access and payment.
- Construction starts on an underground Metro system, and new forms of public transportation are introduced across a limited network of the main tourism hotpots as temporary solutions while the metro is built.

3.4 Test scenario: Clean and active mobility

This scenario will strive to drive a modal shift towards alternative forms of mobility to private car usage, like active modes, public transport, and sharing options

(micro-mobility, cabs, cars).

Public opinion is strongly in favour of a modal shift which stimulates policy measures at both national and regional levels to minimise the role of the private car and promote active, shared and clean modes of transport. This results in new infrastructure being developed to provide safe, secure and efficient alternative mobility options across the Valletta Region, in tourism, residential and commercial areas. Planning, policies and investment will support 5-minute city concepts, where a person can meet a host of their basic needs via a short walk or bike ride; with shared community services, shared office space, sport, parks and recreational infrastructure driving the hyper-proximity concept. Active lifestyles are promoted, and pollution will be reduced. Clean and efficient transport modes to and in the Northern and Southern Harbour regions will be strengthened.

The key mobility implications of this scenario include:

- Residents will undertake less journeys outside of locality or neighbourhood due to increase in availability of facilities and services to meet daily needs.
- Low or zero carbon mobility options such as walking and cycling will be prioritised and the modal share of such mobility options increased.
- Infrastructure for active transport modes will be improved and new networks of active infrastructure will be developed.
- The road network will give priority to shared and active forms of mobility and private car usage will decrease.
- Greenhouse gas emissions will reduce through a reduction in the amount of ICE vehicles on the roads.
- The number of heavy-duty vehicles in city centres will decrease with a shift towards shared services.

The following measures are foreseen under this scenario:

- Significant investment in infrastructure to support safe and enjoyable active and micro mobility options in all localities in the Valletta region are developed.
- A network of specific and dedicated active mobility routes are studied, planned and developed to enable users to get from one location to another across the region safely without the use of motorised transport.
- The decarbonisation of the bus and ferry fleet is accelerated.
- Low emission zones are considered to accelerate the shift towards cleaner transport options
- New incentives and programmes are introduced to support the roll-out and adoption of shared mobility and logistic services.
- An extensive network of priority lanes across the road network of the Valletta region will be created to make shared services more efficient, made possible through space reallocation.

- Public parking will be reduced in town centres. More car parks and park and ride facilities on town / village outskirts will be created, with a network of buses and shared community cars, bikes and scooters providing convenient travel options for residents and commuters to travel to their destinations. Existing underutilized parking spaces such as school or government building car parks will be opened up to residents outside of standard hours.
- More streets will be pedestrianised or semi-pedestrianised during certain time periods to support safe and enjoyable community activities and enable children to safely walk to and from school.
- Technology will be introduced to ease parking challenges and guide users to available bays
- Shared urban distribution using clean modes of transport will become mandatory across most hours of the day. Government policy (land / usage) will support the creation of locality delivery hubs and parcel infrastructure.
- Service vehicles will be banned during peak hours.
- The ship-to-shore initiative will be expanded across other areas of the region, beyond the cruise liner terminal.

Building on the foundation laid by the baseline assessments and the scenario development, a future vision and key objectives for sustainable urban mobility in the Valletta region will be developed.

These will be underpinned by key indicators and targets as well as measures dedicated to strategic priorities that have been identified.

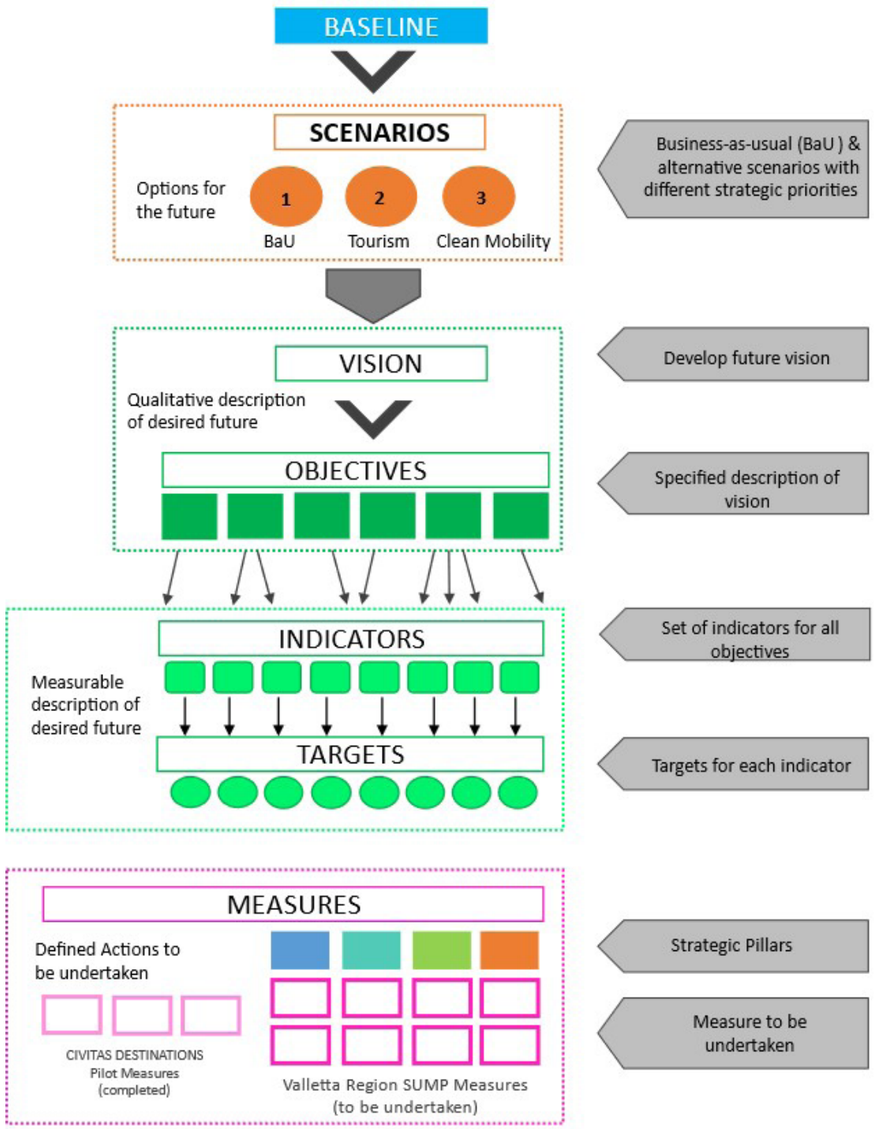


Figure 24: Summary of SUMP Process (modified in line with ELTIS SUMP Guidance 2019)

4

VISION, OBJECTIVES, GOALS AND INDICATORS

4.1 Introduction

The planning cycle of a SUMP is typically five to ten years, with continuous evaluation during implementation. The time period for the Northern and Southern Harbour Region SUMP is eight years, running up to 2030.

The SUMP's vision is to improve the quality of life, relating to health, environment and surroundings, for residents and commuters to the area. The ambition is to make the region more attractive to residents and tourists via better planning and the provision of an efficient mix of diverse and sustainable transport solutions.

To provide strategic guidance, the vision is supported by goals that indicate the type of change that is desired. The goals specify what social, environmental or economic improvements are being targeted. Goals are higher level aims of such SUMPs (e.g. an attractive place to live and get around), while measures (which are detailed in the next chapter) are the means to achieve them (e.g. invest in improved pedestrian infrastructure). This goal-oriented approach contrasts with a planning approach that focuses on the delivery of schemes and infrastructure without reference to higher level ambitions.

The goals for this SUMP are high-level aims that underpin the vision. They have a broader focus than just mobility to stimulate thinking they may not at first be evident as to how mobility interfaces with them and what desired actions need to be taken to meet them.

The bottom-up process brings about a number of benefits: it strengthens the local communities' collective ownership around the common vision and goals and brings awareness of how these align and fit with their local priorities, overarching local challenges and opportunities, and national plans such as the national transport strategy 2050. By emphasising the role that a bottom-up approach plays, the SUMP helps to ensure the commitment of key actors and decision makers to the vision and goals of the Valletta region.

4.2 SUMP Vision, Objective and Goals

In close cooperation with stakeholders the vision for this SUMP is:

"A better quality of life for residents and tourists, from a mobility perspective".

An elaborated version of the vision applies as 'formal' objective or mission statement for the SUMP.

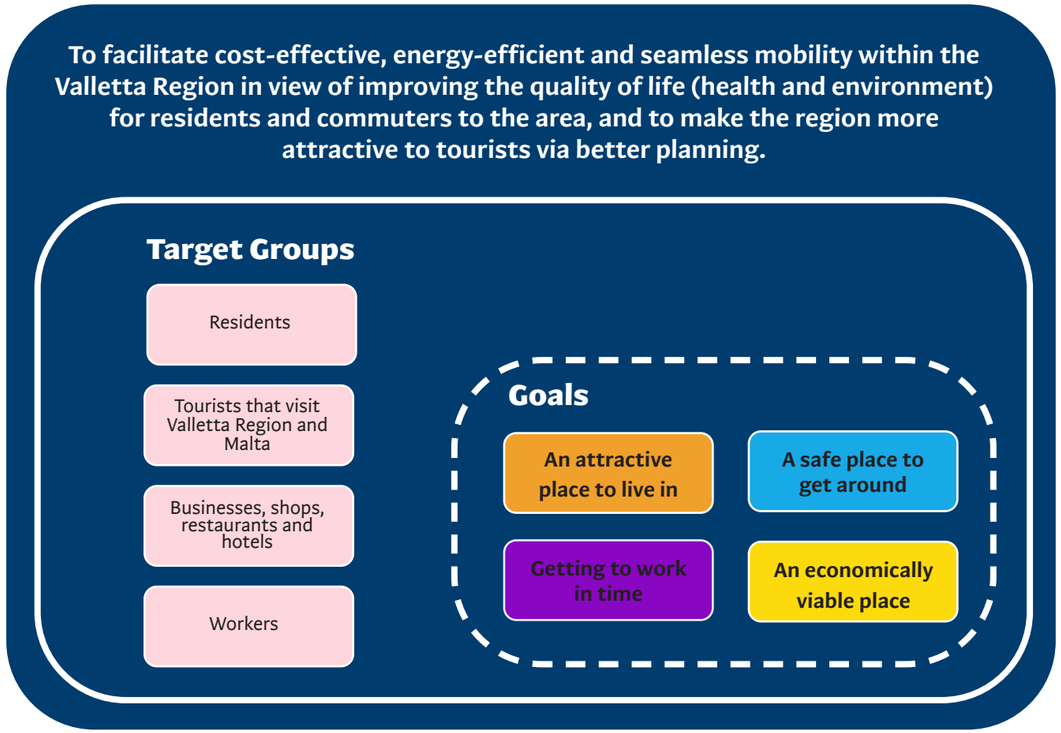


Figure 25: Target groups and goals

The proposed aim is to optimise the existing ecosystem and shift towards a more sustainable mobility solutions in Malta. The use of digital technologies is seen as a horizontal enabler for all four pillars. All four pillars will jointly contribute to the overall vision of an improved quality of life (health and environment) for residents and commuters to the area, and in making the region safer and more attractive to tourists.

4.3 Operationalisation for Different Target Groups through Sub-goals

This objective has then been further operationalised for target groups and sub-goals.

An attractive place to live in	Getting to work in time	A safe place to get around	An economically viable place
• Improve the quality of facilities and surroundings for pedestrians • Improve accessibility of footpaths and public space • Decrease air and noise pollution • Provide and promote sustainable and clean transport modes	• Provide dependable journey times for different modes of transport • Ensure that public transport is an accessible, cheap, fast and reliable form of mobility to get to work • Improve accessibility of alternatives to the car: ferry, cycling and walking as a means of getting to work • Make shared and on- demand services a means and reliable option of travel	• Improve safety of pedestrians and cyclists • Improve road safety in school zones and village cores • Improve pedestrian, cyclist and vehicle safety around construction sites • Improve driver behaviour and adherence to regulations on the roads	• Ensure optimal mobility connectivity to reach the area • Ensure optimal accessibility for goods transport and for business • Ensure optimal accessibility for residents, workers and tourist to shop, work and undertake leisure activities in the area • Create attractive spaces for residents, workers and tourists to spend time in the area

4.4 Alignment of this SUMP and National Transport Strategy Goals

For the SUMP to be successful it is necessary to have proper alignment with the NTS. The NTS identifies six strategic goals which define what the transportation system should achieve. These goals revolve around the principles of sustainable development and focus on economic, social and environmental aspects.

The six strategic goals of the NTS are:

- Transport to support Economic Development
- Transport to promote Environmental and Urban Sustainability
- Transport to provide Accessibility and Mobility
- Transport to support Social Development and Inclusion
- Transport to remain Safe and Secure
- Transport to work towards Improved Public Health

The Northern and Southern Harbour Regions SUMP's goals are aligned in the following way:

Plan	Attractive place to live in	A safe place to get around	Getting to work in time	An economically viable place
Economic Development			✓	✓
Environmental and Urban Sustainability	✓		✓	
Accessibility and Mobility			✓	✓
Social Development and Inclusion	✓	✓		
Safe and Secure		✓		
Improved Public Health	✓	✓		

Table 7: SUMP alignment with NTS 2050

4.5 Indicators

Impact indicators have been chosen to measure the progress and the success of the measures included in this SUMP. Collecting these require substantial efforts where baseline information and monitoring schemes was not available. In this light, the respective indicators have been selected as a corner stone. An additional indicator has been included for road safety.

An attractive place to live in | **Getting to work in time** | **A safe place to get around** | **An economically viable place**

- **Modal Share car drivers [back to 1990 level]: 41%**
- **Modal Share of non-motorised trips (journeys more than 5min at AM peak): 15%**
- **Conventionally fuelled cars to make up 50% of National Fleet**
- **Zero emission urban logistics: 95%**
- **Road Traffic accidents: grievous injuries: 204 Fatalities 8**

Strategic goal	Indicator	Targets 2030	Targets 2050
Accessibility and Mobility	Modal Share (car drivers)	41%	10%
Improved Public Health	Modal share of non-motorised trips	15%	20%
Environmental & Urban Sustainability	Conventionally fuelled cars	50%	0%
	Zero emission urban logistics	95%	100%
Safe and Secure	Road accidents grievious injuries	204	150
	Fatalities	8	None

Table 8: Strategic goals and indicators as per the NTS 2050

5

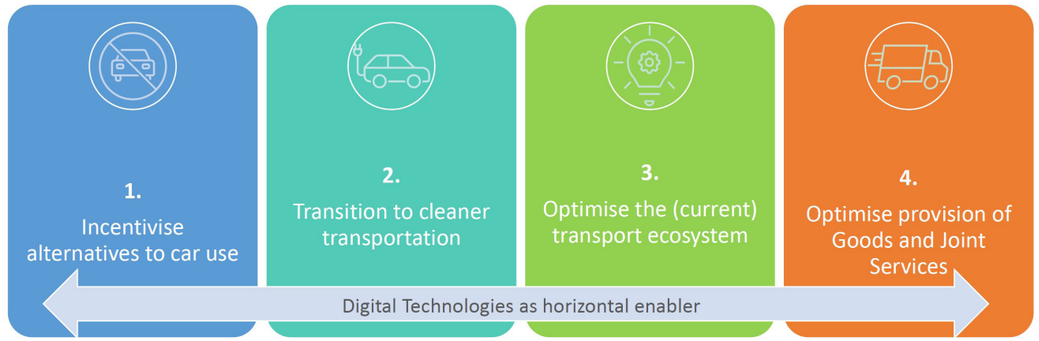
PROPOSED ACTIONS AND MEASURES

5.1 The Four Strategic Pillars of the SUMP

The following phase of the SUMP planning process moves from the strategic to the operational level. This is done by translating the SUMP goals into a series of operational measures (actions) that will enable the goals and targets to be achieved.

The SUMP Measures are based on and grouped into four strategic Pillars, which aim to address different levers to optimise the existing ecosystem (short- to medium-term) and shift towards more sustainable mobility solutions in Malta (medium- to long-term). The use of digital technologies is seen as a horizontal enabler across all four pillars.

The four pillars are illustrated in the figure below.



A number of pilot measures were completed within the CIVITAS DESTINATIONS project and, their outputs informed subsequent measures being proposed herein. The successful implementation of all measures being proposed is dependent on the availability of both human and financial resources.

5.1.1 PILLAR 1 - Incentivse alternatives to car use

This strategic Pillar aims to incentivise alternatives to private car use. Key focus areas in this Pillar are:

- Encourage active modes of transport such as cycling or walking.
- Improve inter-modality.
- Enhance and expand public maritime transport (ferry infrastructure and usage).
- Optimise and incentivise public bus transport usage.

There are 11 Measures identified under this Pillar which are described below and summarised in the table.

Measure 1.1 Invest in infrastructure that encourages active modes of transport based on identified routes

This Measure aims to identify and implement active mobility routes, which can take users, from Point A to Point B, safely and efficiently, using active mobility methods of transportation. Infrastructure Malta (IM) is currently preparing plans for Safer Active Mobility routes with additional investment over a medium-term period.

The scope of this project is to provide an improved dimension of Active Mobility Connections through better continuity, efficiency and most of all safety and in the process encourage more confidence in our users that roads can be used through alternative means other than the private vehicle. The measure will include, among others:

(A) Improvement of existing footpaths and cycling infrastructure;
(B) Traffic calming measures in local roads to enable a shared route that can be more safely accessible for vulnerable road users;
(C) Upgrading of existing crossings and introduction of new crossings at pedestrian and cyclists desire lines;
(D) Introduction of new infrastructure including footpaths, cycling infrastructure and shared pathways to create safer active mobility;
(E) Improving directness and efficient routes by ameliorating connections to public transit nodes; and
(F) Introduction of mobility points at strategic locations to ease the shifting from one mode to another.

Measure 1.2 Encourage walking and improve pedestrian infrastructure

Journeys which are less than 2km in length can easily be carried out on foot. However, current pedestrian infrastructure very often deters users from walking. Pedestrian infrastructure is therefore to be improved, particularly within areas in localities which could generate the most foot traffic such as school areas, shopping areas, the church, main services (post office/ police station/ health care clinic etc.) and the roads leading to them. This measure will also look into improving the general accessibility of the pavement / walkways for persons with disabilities, elderly or pushchairs. Another focus area will be improved wayfinding for tourists and visitors with the support of digital technologies. As a first step locations will be identified in the central hub where wayfinding could be improved to help tourists and visitors navigate.

This Measure also includes identifying streets which can be potentially transformed into semi or fully pedestrianised areas within the different localities and running studies/ pilots as well as holding discussions with affected stakeholders. This may be limited to a particular time during the day. Potential areas which have been identified and thus could be studied further include commercial hubs within localities. In the spirit of a tactical urbanism approach, these spaces may be tested for increased pedestrian activity and subsequently reverted back, or they may be made even more permanent, depending on the outcome of such pilot initiatives.

Measure 1.3 Trial timed-pedestrianisation in the direct vicinity of schools

This Measure relates to studying the traffic management around selected school areas and, where feasible, undertake pilot projects for the pedestrianisation of such school areas during school times (i.e. pilot projects in urban areas).

Measure 1.4 Incentivise cycling in the Region

This measure aims to:

- Encourage Local Councils to introduce local cycling clubs for both children and adults to facilitate the uptake of cycling within the community. This is to include the provision of lessons (which can be coordinated in conjunction with cycling NGOs/ clubs/ nurseries) to teach residents how to cycle, traffic safety and mobility education for cyclists and other traffic participants, including safe and defensive cycling/ driving behaviours. Schools and other communal stakeholders could act as a multiplier for these activities.
- Undertake complementing campaign activities, which could include cycling tours organised in collaboration with Heritage Malta and MTA or local ambassadors/ champions.
- Encourage the expansion of transport sharing services within both regions.

Measure 1.5 Encourage green travel plans and green commuting plans in the Region

This Measure aims to:

- Encourage public sector entities to develop green travel plans for their employees. Activities within such plans can include the provision of collective transport from localities with a high concentration of employees, tele-working on a set number of days per week and the encouragement and enforcement of car-pooling among employees. One could envisage issuing guidance and supporting pilots and trials or campaigns across at least one public sector entity in the two regions.
- Private sector entities with a link to the Region are encouraged to prepare plans for their employees to travel more sustainably. New or relocated commercial developments of a certain size should be obliged to implement a Green Commuting Plan for staff to support more sustainable commuting practices, as per Planning Authority planning conditions.

Measure 1.6 Explore sustainable mobility hubs of the future

The aim of this Measure is to explore and study the potential setting up of sustainable mobility community hubs-of-the-future,

exploring services that could be provided and linked, ranging from shared transport and micro-mobility services addressing first/last mile issues to parking, charging infrastructure or logistic components such as parcel lockers.

Measure 1.7 Explore and map combined transport routes

To further facilitate the uptake of combined transport options such as combining bus and ferry rides, active transport (cycling) as well as last mile options based on shared micro-mobility services, this measure will explore routes in the region where very efficient mobility can be achieved by combining different services, and also communicate the outcomes and advantages broadly (campaign). One example could be to take the bike on the ferry or to use bike sharing for the first and last mile of a journey.

Measure 1.8 Explore residential car sharing schemes

The Measure will look into options to incentivise Local Councils to set up and/ or enlarge car sharing schemes within their localities, also by partnering with neighbouring Local Councils where appropriate (e.g. the Cottonera area), to service community needs and further support the shift from individual car ownership to shared mobility.

Measure 1.9 Facilitate ferry usage for more localities

This Measure will explore how to facilitate ferry usage by means of a potential expansion towards novel ferry routes/ jetties as well as increasing the accessibility of existing ones to citizens in neighbouring localities and better exploit inter-modal linkages.

This can include the undertaking of a feasibility study to determine the possibility and viability of dedicated circular route/s which picks up commuters and tourists from a radius of immediate locations which can be serviced by the ferry (e.g. Gzira/ St Julian's/ Pembroke/ Ibragg for Sliema Ferries; and Paola/ Xghajra/ Fgura/ Zabbar for Cospicua ferry) and transports them to the respective ferry landing sites.

Measure 1.10 Facilitate public transport schedules

This Measure will analyse the present-day requirements of public transport schedules within the region and identify whether any changes are required to increase patronage. This will culminate in recommendations also with regards to revised routes.

Measure 1.11 Evaluate and improve on-demand services

The Measure will look at current on-demand service and explore potential improvements or widening of scope in the region, taking specific use cases as an example.

Pillar 1 Summary table

No.	Measure	Key stakeholders*	Timing	Evaluation
1.1	Invest in infrastructure that encourages active modes of transport based on identified routes	Infrastructure Malta; users of infrastructure; residents and tourists for active mobility routes; local councils	Long term	Number of users, comparison of modal split before and after measure, satisfaction surveys
1.2	Encourage walking and improve pedestrian infrastructure	Users of infrastructure; resident and commercial communities, Infrastructure Malta; local councils	Medium term	Satisfaction surveys with residents following the regeneration, number of pedestrians, comparison of modal split before and after measure
1.3	Trial timed-pedestrianisation in the direct vicinity of schools	Schools; Ministry for Education; parents; local councils	Short term	Reduction in number of accidents and congestion around schools, school travel survey results
1.4	Incentivise cycling in the Region	Local councils; cycling community (NGOs/ clubs/ trainers); operators of sharing business models	Short term	Number of users
1.5	Encourage green travel plans and green commuting plans in the Region	for (A): selected public sector entity; Office of the Principal Permanent Secretary. For (B): Planning Authority; business community	Short term	Modal split before and after measure, number of applications for grants
1.6	Explore sustainable mobility hubs of the future	Transport Malta	Medium term	No. of potential new services
1.7	Explore and map combined transport routes	Transport Malta	Short term	No. of different combined services
1.8	Explore residential car sharing schemes	Local councils	Short term	No. of potential schemes identified, number of users

No.	Measure	Key stakeholders*	Timing	Evaluation
1.9	Facilitate ferry usage for more localities	Transport Malta; Infrastructure Malta; private operators	Medium term	Number of additional passengers
1.10	Facilitate public transport schedules	Transport Malta; local councils; private operator	Short term	No. of recommendations leading to additional patronage
1.11	Evaluate and improve on-demand services	Transport Malta; local councils; private operator; business community	Medium term	Identified locations for expanding on-demand services network

** This is not an exhaustive list and can be updated during the implementation period.*

5.1.2 PILLAR 2 - Transition to cleaner transportation

The aim of this Pillar is to incentivise the replacement of polluting internal-combustion engine (ICE) vehicles on Malta's roads with cleaner alternatives by means of:

- Electrification of the vehicle fleet; and,
- Evaluation and roll-out of alternative fuels such as Hydrogen.

There are 4 measures identified under this Pillar which are described below and summarised in the table.

Measure 2.1 Incentivise increased roll-out of EV charging infrastructure in the Region

This Measure aims to improve the availability of EV charging options in public and private spaces in the Region. The Government can assess the utilization of policy tools to incentivise the deployment of charging infrastructure in commercial areas (e.g. supermarkets, fuel stations), the deployment of additional charging points in residential areas as well as privately-owned, publicly accessible land. New residential developments should already start catering for EV charging points (or connectivity), through appropriate planning conditions enforced by the PA.

Measure 2.2 Evaluate the potential roll-out of alternative fuels

The feasibility of other fuels as an alternative transport fuel across all transport modes will be looked into. This might also cover the identification of suitable locations as well as general need for the installation of re-fueling facilities as well as potential incentives to facilitate the uptake of any potentially required infrastructure.

Measure 2.3 Explore low emission zones in the Region

The feasibility of introducing low emission zones in certain localities and strategic areas within the Region will be studied. This could, for example, be combined with the current system in Valletta, with different models being applied (e.g. for residents, non-residents or commercial vehicles; positive discrimination).

Measure 2.4 Extend roll-out of shore-side electricity for cruise liners

This Measure relates to the continued roll-out of shoreside electricity in the Grand Harbour Cruise Liner Terminals. Using shore-side electricity will significantly improve air quality due to fewer emissions from marine fuel combustion.

Pillar 2 Summary table

No.	Measure	Key stakeholders*	Timing	Evaluation
2.1	Incentivise increased roll-out of EV charging infrastructure in the Region	Ministry for the Environment, Energy & Enterprise (MEEE), Planning Authority	Long term	No. of additional fast EV charging points in commercial areas, no. of additional EV charging points in residential areas
2.2	Evaluate the potential roll-out of alternative fuels	Ministry for the Environment, Energy & Enterprise (MEEE) and Ministry for Transport, Infrastructure and Capital Projects	Short term	Finalisation of a guiding document on the most suitable way forward
2.3	Explore low emission zones in the Region	Environment & Resources Authority	Medium term	Finalisation of a guiding document on the most suitable way forward
2.4	Extend roll-out of shore-side electricity for cruise liners	Infrastructure Malta, Ministry for the Environment, Energy & Enterprise (MEEE)	Long term	Number of shore-side electricity points installed

** This is not an exhaustive list and can be updated during the implementation period.*

5.1.3 PILLAR 3 - Optimise the current transport ecosystem

This Pillar aims to tackle two SUMP objectives, namely (i) greater efficiency and cost-effectiveness of the transportation of persons and goods and (as a product of these initiatives) and (ii) the reduction of air and noise pollution, greenhouse gas emissions and energy consumption. This is done through measures aimed at the optimisation of the current ecosystem in the short to medium term:

(A) Improvements in parking situation and utilisation of Park & Ride facilities
(B) Clear focus on enforcement
(C) Exploitation of data and digital technologies

There are 6 Measures identified under this Pillar which are described below and summarised in the table.

Measure 3.1 Undertake further data collection to inform measures

Data collection or generation exercises to understand current parking realities, various modes, and demand distribution will be carried out. This could include the availability of on- and off-street parking; parking permits issued, parking provision (or non-provision, if fines are paid instead) of different development permits issued by the PA vis-a-vis different land uses (and especially for redevelopments), as well as applications for designated/reserved parking bays (un/loading, blue badge, residents only schemes). This data would be crucial for policy making, including an understanding of the cumulative impact of decisions.

Measure 3.2 Explore multi-purpose communal parking areas

This Measure will investigate the introduction of communal parking facilities (including underground) and identify potential locations. Such communal parking spaces could be further utilised to serve other objectives (e.g. by including vehicle charging infrastructure or linking the facilities to future hub concept by means of adding alternative modes of transport options such as micro-mobility, residential car sharing, last mile etc.).

The study will also consider whether public land could be used for communal parking at given times throughout the day. For instance, the study will consider whether specific government building car parks or school grounds could be opened as residential parking at night- time, without limiting any of the current uses (academic and extra-curricular activities, such as sports, which will retain priority). This study will also include a case-by-case assessment of the identified areas, and lead to trials. Such facilities could also be upgraded to include EV charging facilities where the space allows.

Measure 3.3 Optimise Park & Ride facilities

As residential areas move away from the central hub (the regions) to more peripheral areas of the island, commuters have to travel inter-zonal journeys to get to/from work, creating high congestion on the approach roads within the hub.

To address this, a review of existing P&R facilities will be necessary, including the identification of extending existing facilities, such as Mriehel, and/or implementing new ones based on current and expected usage, such as in Ta' Qali and Luqa.

Measure 3.4 Increase enforcement in the Region

This Measure aims to:

(A) Increase enforcement along bus corridors to avoid accumulating bottlenecks along bus routes that increase bus travel times.

(B) Better manage road works and construction sites. Through the use of GIS, Local Councils could be given increased control on the sharing of information on road works and road closures. This information will be shared in real-time to better manage traffic, avoiding bottlenecks and accidents.

(C) Increase enforcement of non-EV/PHEV vehicles parking at dedicated spots allocated for the charging of such vehicles and of illegal parking practices that contribute to added congestion and unsafe street environments.

(D) Increase enforcement in relation to illegalities related to encroachments wherein pavements and pedestrian routes are compromised or even blocked.

Measure 3.5 Revisit timings for on-road public services

Discussions will be undertaken to assess whether peak traffic can be further mitigated through the revision of the timings of public on-street services (such as street cleaning, gardening, waste collection) to coincide with off-peak hours and the setting up a rigorous enforcement system.

Measure 3.6 Exploit digital tools

This Measure will be linked to:

- The better exploitation of available parking in residential areas through the leveraging of digital tools. These applications are similar to those introduced at Hastings Garden and in Qormi, and systems that have been implemented in some private car parks.
- The exploration of options on how to deploy digital technologies to optimise traffic flows. For example, these include intelligent traffic management systems that use traffic cameras, road closures feeding into third-party applications, lane prioritisation or parking applications/systems, alongside emerging technologies such as the use of predictive modelling and artificial intelligence.

Analysis of the potential to facilitate bus priority measures in the Region through the integration of digital infrastructure.

Pillar 3 Summary table

No.	Measure	Key stakeholders*	Timing	Evaluation
3.1	Undertake further data collection to inform measures	Planning Authority, Transport Malta, private operators	Short term	No. & location of potential P&R facilities based on current & predicted users
3.2	Explore multi-purpose communal parking areas	Transport Malta, Office of the Principal Permanent Secretary, Ministry for Education, schools, private operators	Short term	No. & location of potential communal parking facilities based on current & predicted users
3.3	Optimise Park & Ride facilities	Transport Malta, private operators	Short term	Usage of existing P&R facilities
3.4	Increase enforcement in the Region	Transport Malta, Ministry for Home Affairs, Security, Reforms and Equality, LESA, private operators	Short term	No. of fines given
3.5	Revisit timings for on-road public services	Central Government	Mediun term	Stakeholder engagement and study report on outcomes
3.6	Exploit digital tools	Transport Malta, Ministry for Home Affairs, Security, Reforms and Equality, private operators	Long term	CBA of efficiency savings through the use of digital tools

** This is not an exhaustive list and can be updated during the implementation period.*

5.1.4 PILLAR 4 - Optimise provision of goods and joint services

This strategic objective is closely linked to the eventual development of a national Sustainable Urban Logistics Plan (SULP) and aims to shift delivery and logistics towards more efficient and sustainable mobility practices such as:

- Exploration of last-mile logistics solutions
- Incentivisation of alternative modes of delivery
- Exploration of the establishment of mobility/logistics hubs (also linked to last mile and other objectives)

Measure 4.1 Extend last mile delivery with shared vehicle

A pilot project at the Ta' Qali crafts village provided information on how to optimise and maximise trips and cost efficiency of last mile delivery using shared vehicles. Based on the evaluation of the benefits, transport effects and outcomes of this pilot, the service can be rolled out to other localities in the Region.

Measure 4.2 Expand last mile delivery network

The roll out/expansion of a last mile delivery network will be investigated for the Northern and Southern Harbour Regions. Examples of sustainable supply chain and logistics operations will be detected and their roll-out potential evaluated. The objective is to increase the market share of electric vehicles in goods transportation in Malta.

Measure 4.3 Enforce proper use of un/ loading bays

This Measure will explore the possible introduction of RFID-activated bollards at loading/ unloading bays, in selected sites within the Regions, so that they can be used exclusively by delivery vehicles. The objective is to help with enforcement of unloading regulations, reduce the disturbance and increase the quality of life and mobility experience for residents and visitors.

Measure 4.4 Explore centralised logistics hubs

A strategic study will be conducted to identify potential centralised logistics hubs in the Northern and Southern Harbour Region; this will also connect to the studies on mobility hubs of the future. The objective is to obtain a freight consolidation effect, leading to more efficient deliveries and less resources/ energy/costs per unit. This should be beneficial for the competitiveness of the Malta logistics and supply chain industry.

Pillar 4 Summary table

No.	Measure	Key stakeholders*	Timing	Evaluation
4.1	Extend last mile delivery with shared vehicle	Business community	Medium term	Scale of usage
4.2	Expand last mile delivery network	Private operators; business community	Medium term	Scale of usage
4.3	Enforce proper use of un/loading bays	Transport Malta, Ministry for Home Affairs, Security, Reforms and Equality, LESA, private operators	Short term	No. of fines given for un/loading bays
4.4	Explore centralised logistics hubs	Transport Malta	Medium term	Locations of potential centralised hubs identified

** This is not an exhaustive list and can be updated during the implementation period.*

Summary of Pillars and Measures

PILLAR 1: Incentivise alternatives to car use	PILLAR 2: Transition to cleaner transportation
Encourage active modes of transport such as cycling or walking 1.1 Invest in infrastructure that encourages active transport based on identified routes 1.2 Encourage walking and improve pedestrian infrastructure 1.3 Trial timed-pedestrianisation near schools 1.4 Encourage cycling **Improve inter-modality and the modal shift (future sustainable mobility hubs)** 1.5 Encourage green travel plans and green commuting plans 1.6 Explore sustainable mobility hubs of the future 1.7 Explore and map combined transport routes 1.8 Explore the setting up residential car sharing schemes **Further explore maritime transport (ferry infrastructure and usage)** 1.9 Facilitate ferry usage **Optimising and incentivising public bus transport** 1.10 Facilitate Public Transport Schedules 1.11 Evaluate and improve on-demand services	**Electrification of the vehicle fleet** 2.1 Incentivise increased Roll-out of EV charging infrastructure **Others** 2.2 Evaluate potential roll-out of alternative fuels such as Hydrogen 2.3 Explore low emission zones 2.4 Extend roll-out of shore-side electricity for cruise liners

Summary of Pillars and Measures

PILLAR 3: Optimise the (current) transport network	PILLAR 4: Optimise provision of Goods and Joint Services
Improve parking situation and utilisation of Park & Ride facilities	4.1 Extend last mile delivery
3.1 Undertake data collection to inform measures	4.2 Expand last mile delivery network
3.2 Explore multi-purpose communal parking areas	4.3 Enforce proper use of un/loading bays
3.3 Optimise Park & Ride facilities	4.4 Explore centralised logistics hubs
Clear focus on enforcement	
3.4 Increase enforcement in region	
3.5 Revisit timings for on road public services	
Leverage data and digital technologies	
3.6 Exploit digitals tools	

5.2 Implementation

The Measures that are foreseen in this SUMP are broad and wide ranging. Implementation requires strong collaboration between various stakeholders, government entities, local councils, private operators, and end users. The Measures cannot be carried out concurrently, as interdependencies and interactions between the Measures and other stakeholders exist. Successful Implementation will be heavily influenced by the allocation and

availability of budgets and identification of funds. Hence, implementation will be phased and undertaken in the period between 2023-2030, with the budget required for same expected to be allocated from central government and, possibly through EU funding.

The proposed implementation plan considers these parameters and is based upon the following critical questions:

- **Which measures have the most impact based on their effectiveness?**
- **How does the sequencing and synergies between measures impact the timing of when they need to be undertaken?**
- **Do the measures need to evolve (following the publication of this document) to take into consideration national or regional mobility, socio-economic or financial considerations which may impact implementation?**

Within the SUMP projections, most of the strategic Pillars and Measures are foreseen to be implemented over the next 5 to 10 years. The financial framework for the SUMP originates from various sources and funding programmes. Apart from national funds, other financial sources will be explored. The publication of the current SUMP is also linked to Malta's Recovery and Resilience Plan (RRP) funding. This SUMP is also aligned to the NTS and TMP, and other inter-linked strategies (National Energy & Climate Plan; Low Carbon Development Strategy).

5.3 Monitoring and Evaluation

Monitoring and evaluation, both of the planning process and the implementation of the measures, are crucial to the effectiveness of any plan, including a SUMP. Robust monitoring and evaluation processes help to systematically learn from experience, to adjust and to improve the planning activities. Regular monitoring helps to ensure that adequate progress is made consistently.

Evaluation following the implementation phase helps to provide evidence of the effectiveness of the SUMP and its measures, which is essential for long-term success. This process it allows decision makers to justify where money was spent and to assess the extent to which measures have achieved their intended outcome or otherwise. Transparent reporting should ensure that evaluation results feed back into the public debate.

An evaluation plan is foreseen in the SUMP. This plan enables the monitoring of the achievements of the goals and the implementation plan, and the measures within the four strategic pillars. If there are any changes, delays or revisions to the measures, the timing of the implementation and the evaluation plan should reflect this.

In the evaluation of the SUMP, monitoring will be conducted for all the implemented measures. At the start of the implementation of a measure, the monitoring and evaluation process will be outlined, key indicators for each measure will be defined, and data that should be gathered for effective monitoring and evaluation to take place will be identified. A progress report on this SUMP will be prepared every two years. In this report the following aspects are to be taken into account:

- Overall description of general conditions, changes and trends influencing the mobility situation in Malta and especially the regions in question.
- Description of developments, projects and measures that have been completed or are in progress and have an impact on relevant data for evaluation.
- An overview of steps taken within the SUMP framework.
- Changes and delays within the review period.

5.4 Pilot Measures Undertaken During the CIVITAS DESTINATIONS Project which Informed this SUMP

As noted in the introduction to this Chapter, a number of pilot measures were initiated as part of the CIVITAS DESTINATIONS project. These measures were intended to build greater awareness of the SUMP process amongst key stakeholder groups, including the local councils. They have also enabled to the team responsible for developing the SUMP to pilot and learn from a number of high-impact measures.

The pilot projects initiated through CIVITAS DESTINATIONS focus on three of the four pillars.

A SMART parking management system was introduced in the Hastings area of Valletta, to pilot how technology could be used to guide drivers on parking availability, through the installation of sensors in off-street parking areas. With this real-time parking information available to drivers as they approach Valletta, unnecessary cruising in search of a parking spot within this zone has been significantly reduced.

A study was commissioned on the possibilities of facilitating the connection between the Marsamxett ferry landing site and upper Valletta, also integrating the ferry network with the land transport system. A circular route connecting the two ferry landing sites has been since been implemented, allowing ferry commuters to cross between the Three Cities and Sliema terminals without having to walk across the capital city or catch a taxi. This makes the ferry more accessible and an attractive alternative to the private car.

Another pilot project focused on the upgrading of the technology to report high-polluting vehicles to a fully automated system. The new fully automated system calls reported vehicles in for testing when three reports are received for the same vehicle based on the registration number.

The owners will then be instructed to either carry out the required maintenance or to scrap the vehicle depending on its state. The new system replaced the previous reporting system, which was highly manual and somewhat inefficient, providing a strong basis for further usage of technology to drive SUMP objectives.

A pilot project was also initiated to test the feasibility of the last mile delivery of goods within the local context. The measure was implemented in two parts. The first consisted of data collection for and the second included the design and implementation of the pilot itself. As part of the pilot, the participating companies shared a single electric goods van for the consolidated transport of their produced goods which had previously been carried out using six separate ICE vans. The pilot was undertaken with the Ta' Qali Crafts Village and was designed to showcase and promote the uptake of good solutions in a voluntary way, by providing evidence and demonstrating the benefits for the public and private sectors.

Other pilots included the use of a journey planning application, aimed at tourists, which was developed in conjunction with the University of Malta; the launch of a 'Green Mobility Hotel Award', which encouraged hotels to design sustainable mobility measures for the benefit of their guests, the business community, employees and the general public, through which electric vans, the installation of bike racks and ancillary facilities were funded.

Local councils were also supported to identify, develop and submit clean and active mobility related projects as part of the European Mobility week.

5.5 Conclusion

In light of demographic changes and the short, medium to long implementation period associated with the proposed measures, a coherent mobility solution in line with the Transport Master Plan, 2025 (TMP) and National Transport Strategy, 2050 (NTS) has been developed for the Valletta Region and is set out in this SUMP. This has been developed based on projected demand, spatial planning objectives, stakeholder consultation, and comparisons of different options in terms of their long-term costs and benefits. The realisation of the present SUMP will provide a more sustainable transport system which is efficient, inclusive, safe, integrated, and reliable for people and freight, and which supports attractive urban, rural, and coastal environments and communities where people want to live and work: now and in the future.

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Transport Malta

CiVITAS DESTINATIONS

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