NATIONAL CYCLING STRATEGY AND ACTION PLAN FOR THE MALTESE ISLANDS

NOVEMBER 2018

Transport Malta
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FOREWORD

This National Cycling Strategy including a National Cycling Action Plan is intended to promote and support cycling in Malta as a sustainable mode of transport. The objective of this strategy is to make it easier for people to use cycling as a means of commuting, to make it safer for people who already cycle as well as above all to entice non-cycling commuters to use the bicycle as another mode of transport. Increasing the number of people who cycle every day will leave significant benefits on society at large such as facilitating healthier life styles, improving the quality of life in urban centres, contributing towards a stronger economy as shown in various cities where there is a cycling culture, increasing the number of green jobs, reducing traffic congestion and above all providing a significant contribution towards a cleaner environment.

We live in a country where people’s needs and demands for mobility, is on the rise. People make choices on how they want to travel based mostly on travel time and convenience, especially since the value of time has evolved whether financially or in terms of quality. This strategy and action plan aim to provide a healthier mode of transport by giving another modal choice to people who need to travel. Cycling is a mode of transport which uses less fuel, is healthy, requires less expensive infrastructure and does not cause any pollution.

This strategy recognizes that cities and urban centres where cycling is widely practiced have achieved a notable modal shift after many years of continuous work and determination to succeed, especially where cycling was not already embedded in the respective culture; like in the case of the Netherlands. This strategy takes a holistic and a coordinated approach towards the promotion of cycling, by addressing cyclists’ needs and concerns within the context of Malta’s dynamic road space environment and within the respective spatial constraints while seek to, provide feasible solutions to endemic problems.

We need a collective effort as well as a co-ordinated approach to achieve the aims and the objectives of this strategy to bring about a more cycle friendly countries by addressing what needs to be carried out, in terms of infrastructure, legal and regulatory frameworks as well as enforcement, this can be achieved by keeping in mind our local and national spatial limitations. In order to encourage more people to enjoy the benefits of cycling, we need the support and the assistance of all the respective stakeholders especially when it comes to coordinated action between those involved, including public authorities, public agencies, schools, cycling groups, vehicle drivers, health promotion agencies, tourism agencies and last but not least, enforcement agencies. All these different stakeholders have a particular role to play to make this strategy, a successful one.

For this reason this strategy is also calling for the setting up of a new stakeholder platform entitled, Cycling Malta which will be chaired by Transport Malta. The scope and role of Cycling Malta is to bring together the respective stakeholders in one national forum, both to promote the use of the bicycle in Malta as a means of transport as well as to oversee the implementation of the National Cycling Strategy and National Cycling Action Plan.
Both the strategy and the action plan have an implementation period similar to that of the Malta National Transport Master Plan, the deployment of which is planned to be completed by 2025. The implementation of the Cycling Action Plan on the other hand is divided into short, medium and long term measures, keeping in mind, reasonable implementation time frames.

Additionally a number of these measures are set to be regarded as works in progress while other ones will be implemented whenever new road projects are being carried out throughout the lifetime of the strategy. On the other hand, more ambitious measures that require long term planning and considerable financing are being considered as long term measures and projects that can be implemented throughout the indicated time lines.
1 SETTING THE SCENE
1.1 Introduction

In 2016, the European Commission approved the Malta National Transport Strategy 2050 and the Malta National Transport Master Plan 2025. The National Cycling Strategy, which incorporates a National Cycling Action Plan, is one of the measures indicated in the National Transport Master Plan 2025.

This National Cycling Strategy and Master Plan takes into account all the cycling-related measures that are indicated in the National Transport Master Plan and hence this policy document is a way to kick off the implementation of the Transport Master Plan itself, as far as cycling is concerned. The timelines for implementation of the National Cycling Strategy and Action Plan are set in parallel to the timelines set for the National Transport Master Plan - 2025.

The scope and objectives of the National Cycling Strategy also falls within the current Government’s policy to promote healthier lifestyles, with Government’s ambition being; a walking and cycling nation by 2025. From a transport perspective this policy document is the first step towards achieving this ambition. Central to this approach is collaboration with the relevant stakeholders and hence the strategy calls for the setting up of Cycling Malta, a national platform to oversee the implementation of both the National Cycling Strategy and the Action Plan.

In parallel, Transport Malta is also actively working to have in place the first Sustainable Urban Mobility Plan (SUMP) covering the Valletta Region (Northern and Southern Harbour Districts as per NSO Classification). Measures earmarked to be included in the SUMP are in line with both the National Transport Master Plan and the National Cycling Action Plan, with the difference being, that while the documents mentioned takes into perspective a national view, the SUMP takes into account a more localised aspect in creating its own implementation plan made up of a set of policy related measures.

One has to note that no Strategy or Action Plan can be successfully implemented unless adequate resources, both material and financial are made available towards its implementation. For this reason, Transport Malta is already actively engaging to bring to the table the required resources. These resources will be made available through a number of funding mechanisms, including EU Funds, National Funds as well as or with direct private investments. Throughout 2017, Transport Malta submitted a number of project proposals for potential ERDF Funding which require substantial investments for the implementation of a good number of the measures indicated in this Action Plan. In addition, Transport Malta is pursuing a policy to promote e-bike sharing and bicycle sharing services on a national scale. Once these projects are completed, over the coming three to four years, the national transport sector would see the largest ever public and private investment relating to the promotion of cycling in Malta ever made.
In the meantime, Transport Malta is actively promoting its policy to set up regional and local transport hubs, referred to, as Sustainable Multi-Intermodal Transport Hubs (SMITHs). Here, various alternative sustainable transport services will be offered to transport users, central to which will be the electrification of transport, the promotion of public transport as well as the promotion of the concept of sharing transport services. The SMITHs concept which is explained in more detail in the Annex to this document, revolves around the provision of a number of sustainable modal choices for transport users to make use of, according to their transport needs in a bid to limit as much as possible the use of the personal private car.

1.1.1 Document Structure
This document is divided into four chapters and an Annex. Chapter One sets the scene by introducing the National and European policy context which this strategy has been developed. It also includes background information on the development and current status of cycling in Malta together with statistics on cycling use as well as data on traffic accidents involving cyclists. Chapter Two goes on to discuss the benefits related to cycling and sets out the Strategy through the Vision, Strategic Goals and Objectives. Chapter Three outlines the Action Plan through the list of specific measures while Chapter Four briefly outlines the intentions with respect to monitoring and evaluation. Lastly, an Annex is provided which presents additional detailed information about the SMITHs project.

1.1.2 The 2025 Timeline
It is envisaged that by 2025, the urban landscape of the Maltese Islands, especially that of the Valletta inner and outer Harbour Districts, will dramatically change from the one of today. This process is being triggered by: the current increase in economic growth; the continuing increase in tourism; further increase in population growth as well as increase in workforce population. This expected surge shall bring with it the expansion and densification of urban centres and business districts which will need to host a hive of economic activities and which will also result in a higher demand for a range of transport services and complimentary infrastructure.

1.1.3 The Historic Timeline
Following the extensive urban development of the Maltese Islands which has taken place since the early 1950’s, a large proportion of the Maltese population migrated to the central cores of our towns and villages. This led to the expansion of Malta’s urban centers with their respective borders encroaching on each other.

This development brought with it a change in people’s habits and behaviour. For many years that followed, a good percentage of the Maltese population, considered the motor vehicle as the ideal and most preferred travel mode and hence towns and villages were designed to accommodate motor vehicles, thus leaving very little space to accommodate other forms of transport.
It is to be noted however, that the urban core of a good number of Maltese towns and villages did not experience such designed interventions, due to the fact that a number of them remained untouched during the heavy bombardments of World War II. Examples of these are still evident, such as parts of Naxxar, Lija, B’Kara, Zejtun, Qormi, and Rabat to name a few. This means that a good number of streets remained intact as in pre-World War II, thus making it difficult for these streets to be widened to accommodate the personal car.

Due to improvements in the standard of living of the general population, the number of motor vehicles on the Maltese Road Network over the last 25 years, grew to very high levels thus putting additional pressures on the existing road network, urban spaces and the environment, public health and road safety. As time went by the situation went from bad to worst to the extent that not only was little space left on the road network to accommodate other modes of transport, but also that the network could barely cope with the increasing demand of vehicular traffic itself.

Table 1.1: Indicates the increase in the level of motorisation throughout the years

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<th>Year</th>
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In the meantime from a planning perspective, little action was taken to curtail traffic congestion or plan for the increase in the level of motorisation. A policy review was urgently needed and the promotion of sustainable mobility is now one of the measures included in the new National Transport Strategy to try and reverse the unsustainable state of affairs.
1.2 The European Union Context

The EU is playing an active role in promoting the use of cycling as a means of transport. Cycling has been emphasised in the 2011 White Paper, titled: Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system. The Roadmap proposes 40 concrete initiatives for the next decade to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, the proposals will dramatically reduce Europe’s dependence on imported oil and cut carbon emissions in transport by 60% by 2050. As part of the White Paper’s objectives it aims to move close to zero fatalities in road transport by 2050 and halve road casualties by 2020.
To further encourage the modal share of cycling in the European cities, the Commission:

- encourages cities to design and put in place Sustainable Urban Mobility Plans which should address cycling and walking;
- promotes the exchange of urban mobility best practice through ELTIS – the urban mobility portal which includes more than 550 case studies.
- addresses vulnerable road users like cyclists and pedestrians, through its road safety policy and legislation;
- supports the awareness-raising campaign European Mobility Week, promoting multimodality and the European Week of Sport promoting physical activity and participation in sport at all levels;
- manages an Expert Group on Urban Mobility to facilitate the exchange of information and cooperation on urban mobility issues between Member States and the European Commission;
- provides funding, in particular through the European Structural and Investment Funds (ERDF) which supports, the development of cycle infrastructure in eligible regions, the EU Health Programme and the Erasmus+ Sport Programme which supports actions to promote the awareness on the importance of physical activity and healthy lifestyle, as well as through the Horizon2020 Research Framework Programme via the CIVITAS initiative;
- liaises with key stakeholders for exchange of best practice and support.

The EU also takes additional measures to promote cycling such as:

- the adaption of legislation to promote safer and more connected cycling infrastructure and services;
- offers guidance on the promotion of cycling as an alternative mode of transport;
- facilitates the sharing of information and best practice measures, guidelines and procedures;
- promotion of health policies;
- funding of projects which promote cycling;
- promotes and supports new trends in cycling;
- encourages the creation of joint cross-border cycling networks or routes.

In many European towns and cities there is scope and demand for increasing cycling activities. According to an in-depth analysis compiled in 2016 by the European Parliament Research Service (EPRS), half of all trips carried out by private passenger cars in these towns and cities are under five kilometres (5km), meaning that most of these can easily be carried out using a bicycle 1.

Additionally, half of all motor vehicle trips for the transport of goods may also be carried out using a specialized cargo bicycle 2.
Schemes to promote cycling are designed to address and reach people who do not usually cycle, by highlighting the benefits and the potential of cycling as a more efficient mode of transport, both from a health and also from a transport perspective, including reduced journey times, reduced parking problems and reduced operational costs. Such promotion also encourages occasional cyclists to cycle more. Effective cycling promotion involves the provision of adequate cycling related infrastructure, information, motivation, better enforcement and awareness campaigns together with educational training in basic cycling skills for school children and cycling-in-traffic training programmes for adults.

A good example which one can cite is that of the Capital City of Slovenia, Ljubljana, where most of the city centre is now closed for vehicular traffic, including public transportation, leaving access for the latter only to the city’s ring road. The city centre of Ljubljana is now only open for bicycle users and pedestrians, and in some cases, drop off points for taxi services. Goods delivery vehicles, on the other hand, are allowed entry during specific restricted time frames so as to carry out their deliveries.

The popularity of cycling in other EU countries can best be assessed by comparing the level of cycling across different European towns and cities. The number of cycling trips, as a percentage of all daily trips, varies from one country to another. The percentage of trips conducted through cycling is highest in the Netherlands at 36%, followed by Denmark at 23%, then by Hungary, Sweden, Finland, Belgium and Germany. The percentage of cycling trips represents less than 5% of the trips in about 30% of EU countries.

With continuous development in cycling infrastructure, research and promotion, there is increased awareness for cycling such that it has established a broad acceptance by society.

Bike-sharing projects and the promotion of bike sharing services in urban centres are complementary to cycling in an urban area especially when combined with public transport for longer travel distances and with maritime ferry services available in and around Valletta. Recently, there has also been a rapid growth in the popularity and use of electric bicycles (Pedelec) and these have extended cycling to people who find cycling too physically tasking.

Moreover, development in cargo bikes and Pedelecs is enabling the transport of goods of up to 250kg in weight to be carried out through cycling. It is for this reason that the Maltese Government in 2018, introduced a cash grant of €400 for the purchase of a pedelec by private individuals, going up to ten pedelecs per company for commercial companies.

There is also considerable growth in cycling tourism and cycling for leisure due to an expanding network of cycle paths. Eurovelo Routes were also instrumental because the project involved the establishment of connections between the national and regional road network and the international cycling network.
Moving Cycling Forward- A coordinated approach to cycling for local and regional authorities in the EU. European Parliamentary Research service, Marketa Page, May 2016 PE 582.033.

2 ibid

3 ibid

4 EuroVelo is a network of 15 long distance cycle routes connecting and uniting the whole European continent. The routes can be used by cycle tourists as well as by local people making daily journeys. EuroVelo currently comprises of 15 routes and it is envisaged that the network will be substantially complete by 2020.
1.2.1 Sustainable Urban Mobility Plans (SUMP\textsc{s})

The use of a bicycle or a pedelec for commuting purposes as well as other bicycle related initiatives in the form of projects, policy measures and other initiatives are all generally included in the nouvelle concept of sustainable mobility solutions which make up Sustainable Urban Mobility Plans (SUMP\textsc{s}). SUMP\textsc{'s} are currently being drafted by many European cities due to their promotion by the European Commission.

The scope of a Sustainable Urban Mobility Plan is to have a number of pre-defined measures which can be implemented over a period of time and which can then be monitored and audited to gauge their effectiveness once implemented. The drafting process of a SUMP includes the participation of the respective stakeholders in a particular city in a bid to bring about coordination between transport planners, transport operators, urban planners and consultation with residents, operators and main actors within the relevant sectors.

Most SUMP\textsc{s} generally include cycle plans such as the introduction of bicycle sharing services, the introduction of new or additional cycling infrastructure, the setting up of cycling connections for daily commuting, as well as the promotion of cycling itself to increase cycling practice. The plans also usually promote the provision of connected, safe cycling infrastructure which integrates efficiently within the existing urban infrastructure such as the road network in an effort to reduce the use of the private passenger car. Other measures may also include provisions for bicycle parking in the form of bicycle racks, road signage, and other supporting infrastructure for cyclists including the use of Intelligent Transport Systems (ITS) applications, as well as intelligent totems, supporting both road safety enforcement and data collection.
1.3 The Cycling Scenario in Malta

1.3.1 Development of Cycling in Malta

Currently in Malta, 25km of designated traditional cycle lanes are currently in place, with another 7.7km of designated cycle lanes are being planned for implementation along the main road network. These cycle lanes however, are not interconnected, are limited in length and do not form a continuous safe cycling network. In addition, most of these are outside the urban centres and located instead on the arterial and distributor road network as well as along the TEN-T Network. This policy document is intended to address this issue in a bid to develop a Safe National Cycling Network.

The first cycle lane which was designed and constructed in Malta as an integral part of a project was the cycle lane in Triq Salini in Marsascala. The construction of this cycle lane was part of the Marsascala seafront upgrading project. Due to road-width limitations, this cycle lane replaced the on-street parking on the seaward side, starting from the inner part of the Marsascala Bay up to the St. Thomas Tower. Given that Marsascala was and is a popular seaside resort with residential units and recreational outlets along the seafront, the demand for on-street free public parking spaces was and still is very high especially during the months of summer. As a result, the cycle lane was timed to try and achieve a balance between the request for the cycle route itself and the demand for on-street car parking. However, the ideal balance between the two was never reached because of the provision of additional on-street parking. The provision of additional parking as a concept works against the principle of promoting cycling as an alternative mode of transport, since the availability of car parking promotes the use of the private passenger car.

Figure 1.2: Cycle Lane and Signage in Marsascala
As much as this cycle lane was an innovative concept in its own right in Malta and considering all the controversy that its implementation brought with it, the project managed to stir a much needed debate which instigated awareness on cycling as a mode of transport in Malta.

A second cycle lane followed on Pioneer Road in Bugibba. This cycle lane was designed as an integral part of the road, but, again, due to road-width constraints, the cycle lane was implemented by replacing the on-street parking. Bugibba, as a locality with a high housing density and a prime recreational and touristic resort meant that the demand for on-street parking was always and still is very high. In Bugibba the cycle lane was not understood by both residents and visitors and instead, the red-paved cycle lane was mistaken for on-street parking bays and were always used as such until this very day. In this regard, lack of enforcement and lack of information for the public needs to be tackled. These two aspects have therefore been included as part of this policy.

Another initiative taken by the Authority for Land Transport (ADT) in the past was the implementation of the first cycle parking structures or cycle racks at various locations in Malta and Gozo. When the design for these structures was being contemplated, it was decided that rather than standard and cheaper U-Bar cycle racks, a more self-explanatory design was adopted. The bicycle racks were therefore designed in the form of a bicycle with the hope that it would identify them as bicycle racks. The reason sought at the time was that the provision of cycle parking was a new thing for Malta and so the intention was that the design would immediately relay the message of the intended use whilst, at the same time, make cycling more visible on the roads. However, the downside of this was that the design was also not understood, as cyclists were accustomed to the more traditional bicycle racks used on the continent which can accommodate more than one bicycle at a time.
These racks were strategically placed along promenades, seafront areas and in places where people tend to congregate; like village squares as well as commercial and recreational centres. The bicycle racks were colour coded; turquoise for those on the seafront and black for those placed in urban centres. On a positive note however these cycle racks did leave the desired impact because they instigated curiosity and debate which gradually introduced the concept of cycling as an alternative mode of transport. As the interest in cycling grew, cycle lanes were retro-fitted in various localities around Malta where the existing road space permitted and where they could be provided at low cost. Such localities included; Mdina Road in Zebbug and Burmarrad Bypass.

These cycle lanes however were not designed as an integral part of the carriageway but implemented only where space permitted so the lanes were intermittent along the same stretch of road. Some of these lanes, with their limitations, are still being used today and they served to highlight the demand for the provision of such infrastructure.

Subsequently in 2006, then the Maltese Land Transport Authority (ADT), had the opportunity to participate in an EU funded project entitled, CYRONMED then the project was funded by the Interreg IIIB programme with the objective to determine cycle routes as well as assess and examine existing and potential cycling infrastructure.

Existing and possible new cycling routes were to be reported and mapped to establish the Cycle Route Network of the Mediterranean. The project was promoted by Malta, Italy, Cyprus and Greece. The ultimate aim of this project was to set up improved cycling connections between the Eurovelo Routes, the Bicitalia Bike Network5, improving interchanges between transport hubs such as train stations, airports and sea ports through cycling infrastructure within a framework which integrates transport planning, environmental protection and the promotion of Cycling Tourism.

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5 http://www.bicitalia.org/it/: a website which serves as a tool to plan cycle trips in Italy
Through CYRONMED, Malta prepared the first design guidelines for the implementation of cycling routes. As a result, the Floriana Park-and-Ride introduced bicycle parking facilities. This was complemented by a short cycle lane from the area known as “tal- Biskuttin” in Floriana up to City Gate bus terminus. Also, bicycles and bicycle helmets were provided by the Park and Ride operator for patrons willing to use a bicycle instead of the mini bus shuttle service.

As part of Transport Malta’s initiative to promote sustainable mobility including cycling from a young age, the Transport Authority started what came to be termed as the Cycling Education for School Children campaign. The Cycling Rodeo was used for cycle training for children. A Cycling Proficiency Test was also introduced and such training was carried out through contact with schools and local councils where this training would be developed as a cycling event and implemented as part of on-going sports and extra-curricular activities in schools or as part of local council activities.

This educational aspect was also integrated within the Road Safety Education Programmes and Campaigns where the focus was on Cycling and Road Safety as a Skill for Life. A cycle training booklet was prepared for children together with a brochure to promote safer cycling in Malta and Gozo.

Road planners, designers and engineers learnt a lot from these projects and also established their first lines of communication with cycling enthusiasts, groups and organizations thus establishing a working relationship which is culminating in the drafting of this first National Cycling Strategy.
Since then, the recent cycle lanes, which have been implemented where discussed with stake holders as part of the planning stage and established themselves as an integral part of the design of the respective roads which hosts them, including those along the Kappara Junction Project, the Coast Road and the Mellieha bypasses. These specific cycle lanes were designed to address the needs of commuters and have provided a safe and integrated cycle lane. The cycle lane at the Coast Road starts from the Bahar ic-Caghaq area up to the Bugibba traffic light junction corner with Pioneer Road. This cycle lane links the Bahar ic-Caghaq residential area and the Bugibba/Qawra recreational and commercial centres. On the other hand, the cycle lane in the Mellieha Bypass starts from the area known as Ta’ Pennellu and continues to Marfa up to the Cirkewwa Gozo Ferry Service terminal.

In 2016, Transport Malta officials attended a Cycling Master class as part of the professional training initiatives of Transport Malta. The master class focused on the planning and design aspects for safe and integrated cycling, as criteria for the design of a phasing scheme for the implementation of such measures. It also included practical challenging road scenarios and how issues associated with poor planning are resolved through good design practices. With respect to developments in transport planning policy, the National Transport Master Plan 2025 has now given the necessary attention to cycling as an important transport mode. One of the objectives within the Road Transport Sector is in fact to “Provide alternatives to private vehicles to encourage sustainable travel patterns and reduce private vehicular demand in the congested ‘hub’ area”. Under this objective three measures in particular focus on cycling these being: to develop a national cycling strategy, to develop pilot cycling corridors and to develop a national bike / e-bike sharing scheme (Transport Malta, 2016). All of these measures are in fact being addressed through this document.
1.3.2 Promoting Cycling at a National Level

1.3.2.1 The Malta National Bicycle Ride

As part of the activities held during the annual European Mobility Week programme as well as under and the European Mobility Actions Label, Transport Malta through its Malta National Electromobility Platform (MNEP), which also coordinates all the activities under these two European promotional brands, launched a number of initiatives which directly promote cycling. These initiatives have been in place ever since the MNEP took over the coordination of these activities in the summer of 2014.

As part of the 2014 European Mobility Week Programme, the Malta National Bicycle Ride was introduced for the first time. Since then, the Bicycle Ride has become an annual event held on Malta’s National Independence Day, the 21st of September.

Since the first edition of the National Bicycle Ride was carried out under the patronage of H.E. the President of the Republic in the form of a fund raising activity such that monies collected from participants were donated to the Community Chest Fund.

Since then, the activity took on a more cycling-promotion role. It is aimed at promoting cycling per se, as well as providing cyclists with the opportunity to enjoy a safe bicycle ride along Malta’s road network. The route is planned specifically to be as lenient as possible in order to encourage cyclists of all ages to participate. Cycling safety, features highly during this event; Cyclists are accompanied by TM electric vehicles and ambulance while TM enforcement officers and Police Officers flank the riders during the ride.

In order to promote cycling beyond this annual event, Transport Malta gives out grants for the purchase of electric bicycles to those lucky participants whose name is called during a draw which takes place right after the run. These grants are now embedded as part of the prizes awarded to those who participate in the Ride.

The aim of the European Mobility Week is to promote sustainable transport practices at local level. In this regard, cycling features predominantly throughout the campaign. In Malta, this is no different. As part of European Mobility Week, Transport Malta has established a number of competitions aimed at Local Councils to promote innovative sustainable mobility related activities, measures and projects. These grants which start from €2,000 for the organisation of events during the European Mobility Week itself have been extended to €30,000 and €50,000 for the implementation of sustainable mobility measures by Local Councils whose proposals are awarded grants through the European Mobility Week Competitions.
These grants are ideal for promoting and supporting cycling at locality level. In fact, in 2015, the St.Paul's Bay Local Council benefitted from a grant of €30,000 to carry out a pilot project by installing two e-bike sharing stations using electric bicycles for the use of residents in the locality. Dingli Local Council was also awarded the grant in 2017 to implement cycling infrastructure at its locality. Other local councils as well as NGOs including the Bicycle Advocacy Group (B.A.G) also benefitted from the €2,000 grants throughout these last three European Mobility Week Editions in activities relating to cycling as well as studies.

In 2016, a one-time competition was launched aimed at Architectural firms and students as part of the European Mobility Week label. The submission of design projects relating to sustainable transport was encouraged. The winning design related to the provision of cycling infrastructure.

*Figure 1.7: shows a series of artwork created to promote cycling related activities as part of European Mobility Week.*
Figure 1.8: EMW Bike Ride

National Bicycle Ride Route.
1.3.2.2 **Summer School Activities**

Starting in 2016, as part of the European Mobility Week, Transport Malta through the MNEP, together with Skolasajf (State Summer School), started to organise information sessions for school children aged between six and eleven years attending state summer schools, from various locations in Malta and Gozo. In total, around 1,600 primary school children take part in these activities annually. The aim of these sessions is to educate children with regards to cycling, road safety and the negative effects of non-sustainable transport on the environment. Children are also awarded with a cycling promotional t-shirt, when answering challenging questions, as a motivator for participating during the sessions.

1.3.2.3 **Valletta SUMP**

As part of an EU funded project entitled CIVITAS DESTINATIONS, Transport Malta is currently compiling a Sustainable Urban Mobility Plan for the Northern and Southern Harbour districts, being termed as the Valletta Region. The SUMP is currently at its inception stage, however several stakeholder consultation meetings have so far been held.

As part of an event held in October 2017, the Stakeholder Forum was set up, including eighty participants ranging from public entities, private organisations and NGOs. Six thematic workshops were held on the day aimed at discussing challenges being faced by the transport sector and possible solutions to mitigate them. One of the workshops dealt specifically with cycling and some of the barriers to cycling were highlighted. Possible solutions to these barriers have been included as part of this Strategy.

Furthermore, as part of the DESTINATIONS project, one of the measures to be deployed deals with the promotion of cycling and education on cycling safety primarily targeting road users. In this regard, a promotional campaign is currently being designed, and planned for deployment in 2018.
Figure 1.9: 2016 European Mobility Week
1.3.2.4 Promoting Cycling with tertiary level students

During the University of Malta’s Fresher’s Week 2016, Transport Malta participated in the event to promote cycling. Information in the form of printed leaflets regarding safe cycling on the road aimed both at cyclists and vehicle drivers were handed out to students to raise awareness. Information regarding the cycling facilities available on the University Campus was also handed out in conjunction with the Institute for Climate Change and Sustainable within the University of Malta. This promotion was in the form of an information card, handed out to students, which leads to a link with which they could access a map which pinpoints bicycle facilities available on the University premises. A competition was also organized for the students. Four students were awarded €50 worth of bus fares.

![Safe Cycling Promotional Material](image)

Figure 1.10: Safe Cycling Promotional Material

Apart from the initiatives being taken by Transport Malta, a lot of work is also being carried out by various cycling groups to promote cycling in Malta. Such groups have been instrumental in promoting cycling as an alternative mode of transport through their continuous dedicated work in educating children, raising awareness of the health benefits of cycling and monitoring cycling accidents in a bid to improve road safety. Transport Malta and the Ministry for Transport, Infrastructure and Capital Projects keep regular contact with such groups who provide support and assistance to help improve safety and increase cycling as an alternative mode of transport.
1.3.3 Road Accident Data Involving Cyclists

Road accident data collected by the Malta Police Force is an important source of information outlining the level of safety as far as cycling is concerned. Following an analysis of this traffic accident data, it results that between 2012 and 2016, there were a total of 221 accidents resulting in injuries to cyclists.

From Table 1.2 one can note that there was an increase in injuries from 2012, reaching a peak in 2014 and decreasing again in 2016. This figure also shows that every year, the majority of cyclists sustaining an injury were predominantly male. Over the period 2012 to 2016, the total number of injured female cyclists was 14, hence 6% of the total injuries.

Table 1.2: Male/Female Cyclist Injuries per Year

Source: Raw Data from Malta Police
Table 1.3 shows the amount of cyclists injured in accidents taking place during both daytime and night-time. Daytime accidents were taken to be between 0700 hours and 1900 hours. This data shows that the majority of cyclist injuries took place during commuting hours. However, the amount of cyclist injury accidents that occurred during the night is significant and should be given attention. During the period between 2012 and 2015, a total of 38 accidents involving cyclist injuries occurred, this translates to 17% of the total.

Table 1.3: Cycling Injury Accidents by Time of Day per Year

Source: Raw Data from Malta Police

Table 1.4 shows the type of injuries sustained by cyclists over the five year period being assessed. The largest amount of slight injuries occurred in the year 2014. One fatality occurred in 2016. The amount of slight injuries was of 57% of all accidents over this five year period; 22% were grievous injuries, there were 20% of cyclists who suffered no injuries or where the injuries were insignificant and the remainder 1% was a fatality.
The Table 1.4 below shows that over the five year period being assessed, the largest number of cyclist injuries involved cyclists between the ages of 40 to 59 years at a percentage of 29%. The least amount of cyclist injuries involved cyclists aged over 60 years at a percentage of 9%.

Table 1.4: Type of Cyclist Injury Accidents per Year
Source: Raw Data from Malta Police

Table 1.5 below shows that over the five year period being assessed, the largest number of cyclist injuries involved cyclists between the ages of 40 to 59 years at a percentage of 29%. The least amount of cyclist injuries involved cyclists aged over 60 years at a percentage of 9%.

Table 1.5: Cyclist Injuries by Age Group per Year
Source: Raw Data from Malta Police

Table 1.6: Injuries by Age Group for the Period 2012-2015
Source: Raw Data from Malta Police
Table 1.6 shows the total number of cyclists injured per month for the period 2012 to 2016. The highest number of cyclist injuries occurred in June followed closely by August. The least number of cyclist injuries occurred in December and January possibly because of the bad weather and the amount of cycling on the roads decreases.

Table 1.7: Cyclists injuries Accidents occurring per month for the period 2012-2016

Source: Raw Data from Malta Police
Table 1.8: Bicycle Accidents in Malta by Locality 2013-2016

Source: Bicycle Advocacy Group

Table 1.8 shows the total injuries suffered by cyclists in Malta by locality for the years 2013 to 2016. The highest amount of accidents occurred in Mosta followed by San Pawl il-Bahar and Birkirkara. This can be explained by the fact that Mosta has a high number of cyclists and a long cycling tradition when compared to the rest of the islands.
Table 1.9 shows that between 2013 and 2016, 85% of accidents involving cyclists occurred in two-way streets. This shows that vehicles proceeding in different directions pose a higher risk to cyclists. The most sensitive area is at junctions where increased manoeuvres also increase accident risks for cyclists.

![Bar chart showing cyclist injuries and accidents by road type from 2013 to 2016.

Table 1.9: Cyclist Injury Accidents by Road Type 2013-2016

Source: Bicycle Advocacy Group

Tables 1.10 and 1.11 show injuries occurring on roads with and without a bus route. It is to be noted that the majority of accidents involving cyclists occur on bus routes. Bus routes are generally provided along traffic corridors hence they tend to be located where there are higher traffic flows, which is a potential reason why a higher incident rate occurs along these roads.

![Bar chart showing cyclist injuries on bus and non-bus routes per year from 2013 to 2016.

Table 1.10: Cyclist Injury Accidents on Bus Route per Year

Source: Bicycle Advocacy Group
Table 1.11: Cyclist Injury Accidents on Bus Route 2013-2016

Source: Bicycle Advocacy Group

1.3.4 Cycling Behaviour and Habits

From a questionnaire carried out among cyclists in 2016, some interesting trends have been recorded such as the fact that 73% of those interviewed claimed they never had any form of accident while 54.6% of those interviewed felt that cycling on main roads is unsafe.

The online questionnaire was carried out for which there were 90 respondents.

Demographic results of the questionnaire (BAG, 2016):

- 78.8% of the respondents were male, 18.2% were female whilst the remaining 3% did not specify their gender;
- Respondents were distributed across most of the localities in Malta with the highest number of respondents at 15% being from Birkirkara followed by Mosta at 8%;
- The ages of the respondents varied between 14 to 80 years however there were no respondents between the ages 65 to 79 years.
The results of the Cycling Behaviour and Habits (BAG, 2016) were as follows:

- 41.8% of respondents cycle for health reasons and as a way of socializing, 18.1% cycle as a sport, 33.9% commuter cycling and the remaining 6.2% travel cycle when abroad;

- 55.3% of respondents have a mountain bike followed by 23.9% who own a road bike. 6.9% own a city bike followed by 5.7% who own an e-bike/Pedelec;

- Cyclists who cycle for more than 200km per week are sports cyclists. Of those cycling between 100km and 200km per week, 50% are sports cyclists. A few sports cyclists are commuters;

- 71.7% of respondents always wear a cycling helmet, 13.1% of respondents wear a cycle helmet most times. 2.0% of cyclists wear a helmet only when riding a Pedelec;

- 46.5% of respondents always wear a high visibility vest whilst cycling, 15.2% never wear such a vest whilst 14.1% of respondents do not cycle at night;

- 77% of cyclists use the front and rear lamps when cycling at night whilst 15% never cycle at night. The remaining respondents use lamps most times or occasionally;

- 42.9% of respondents said that most times they use cycle lanes where these are provided whilst 36.7% of respondents always do;

- 53.5% never cycle on footpaths and promenades followed by 37.4% who do so occasionally;

- 40.0% of cyclists never cycle through tunnels and 48.0% occasionally do so;

- 57.6% of cyclists follow the Highway Code most of the time followed by 36.4% who always follow the code.

The results of the questionnaire focusing on Cycling Safety (BAG, 2016) were as follows:

- In the last 5 years of cycling, 73% of respondents never had an incident with a motor vehicle

- 91% of respondents said that they use evasive action mostly 2 to 4 times every hour spent cycling; to avoid potential motor vehicle accidents;

- 39.1% of respondents responded that dangerous overtaking was their safety concern followed by 21.8% and 19.6% of respondents identifying left hooking and not giving way respectively as their main safety concerns;
43.8% feel reasonably safe when cycling on a main road with slow heavy traffic. 19.8% feel very unsafe. The remainder feel somewhat unsafe;

54.6% of respondents replied that they feel somewhat unsafe cycling on a main road with space free-flowing traffic and 28.9% felt safe. 16.5% felt very unsafe;

The majority of respondents, 46.6%, identified road safety as the main deterrent for using the bicycle to commute. Other reasons were the steep hills, the weather, lack of fitness and cycling ability.

Results of questionnaire focusing on Cycling Promotion and Facilities (BAG, 2016):

Only 18.6% of cyclists feel that motor vehicle drivers have increased their awareness of cyclists on the road;

56.1% of respondents replied that they would use a map showing the safest routes through towns followed by 35.7% who said that they might do so;

In respect of the provision of new cycling routes, 34.6% of respondents said that having a continuous cycle lane is most important followed by 21.6% who identified the cycling surface as most important. Maintenance of such cycle lanes and clear signage followed at 15.8% and 15.1% respectively;

97% of the respondents said that they would encourage children to cycle as a physical activity and 93.8% said that they would encourage children to cycle as a social activity with friends.
1.4 Development of Urban Patterns in Malta

Urban development patterns over the past 50-60 years have resulted in a very challenging situation with regards to urban mobility. The provision of transportation has primarily been car focused resulting in the development of infrastructure and a resultant urban morphology which is designed to accommodate and prioritise private vehicular use. Concurrently, urban areas developed prior to the advance of the motor vehicle where not designed as such and cannot provide for the growing demands of vehicular traffic. Current transportation patterns are therefore car dependent making it quite challenging to create a modal shift towards sustainable forms of mobility, even if the number of public transport passengers have been increasing since 2015.

A number of factors have contributed to the growth of car dependency in Malta. It is not the purpose of this document to delve into all of these in detail; however some aspects are worth discussing as they may have a direct bearing on cycling as a transportation mode. The 1990 Structure Plan provides some insight into these aspects. The Structure Plan aimed to provide a strategic direction and context to guide both government and private sector in the matters concerning Malta’s development. It contained 320 policies on settlements, the built environment, housing, social and community facilities, commerce and industry, agriculture, minerals, tourism and recreation, transport, urban and rural conservation and public utilities. This was the first time that a holistic plan was prepared to guide development in Malta and Gozo (National Transport Strategy 2050). The Structure Plan was replaced by the SPED in 2015. While the recently published National Transport Strategy and National Transport Master plan now compliments the SPED with regards to setting out the national transport framework, this was previously an integral part of the Structure Plan.

The need for better coordination of land use and transport is an important aspect which emerged in the Structure Plan. Planning and development policies during the post-war period were focused mainly on the creation of single land-use zones such as residential areas, recreational areas, commercial business districts and industrial zones. This resulted in residential neighbourhoods without commercial developments and commercial areas without residential land uses. In most cases, the concept of mixed land use areas was not contemplated. Throughout the years, this specific zoning concept created the dependence on the motor vehicle for all forms of travel, such as commuting, commercial and recreational trips because of the increased distances between trip origins and trip destinations. Such longer distances made cycling less attractive.

The structure plan aimed to address the increasing spatial separation between home and work place which had resulted. It assessed different land use options for both housing and employment with a primary view to reducing home-work travel times. The land use strategy finally adopted in the Structure Plan aimed to improve the match between the numbers of homes and jobs in different localities. This would be achieved by locating...
new houses in localities where there was an excess in jobs over households and vice versa with new jobs. This land use strategy was spatially translated into increasing residential development in the Inner Harbour area while giving greater priority to the establishment of new jobs in the outer residential areas. The migration flows of residents moving away from Valletta after 1990 was however paramount for fragmentation. Work places shifted away from the inner harbour area to outer residential areas, however, as access to private cars increased, the proximity of work place to homes had little bearing on the choice of residential areas by home buyers. The levels of car usage therefore increased (*National Transport Strategy 2050*).

Apart from the longer travel distances, the planning and design of roads in the post-war era was based on creating wide, straight, high-speed arterial and distributor road networks oriented towards vehicular use. This made cycling even less attractive due to perceived safety risks as well as the increased availability of the private passenger car. This further reinforced car dependency resulting in a decrease in walking and cycling. The aim is therefore to reverse this trend and work towards cycle-friendly urban areas which promote more sustainable and healthier modal choices and thus also improve health through increased physical activity.

Experience from major European Cities which promote active transportation has shown that these tend to be more compact with a mix of integrated land use and with streets which are designed for motor vehicles, cyclists and pedestrians. Such principles allow for active communities which supports a high quality of life. This is because people of all age groups and of different abilities have convenient and safe access to services, places of employment, residential development, community and social services and infrastructure, schools and recreation using various transport modes. The creation of cycle-friendly areas is synonymous with the creation of active communities. The aim is therefore also to facilitate the development of active communities. While there are a number of planning and design principles which need to be considered to support this, this Strategy recognise that the design of a street plays an important role. This aspect is therefore presented in further depth in the next section.
Design of streets has a direct impact on community well being and this is because the street design influences whether or not communities can be active. Safe, attractive streets which encourage walking, cycling, and the use of public transport, offer one of the best opportunities for people of all ages and abilities to seamlessly integrate physical activity into the course of daily life. This can also result in significant economic and environmental benefits. Street design is therefore a crucial consideration when working towards facilitating cycling. Street design involves numerous stakeholders. It is therefore important to note that the design and implementation of an Active Transport Network will be a shared responsibility between Transport Malta, Central Government and Local Councils with the participation of the private sector. Liaison with stakeholders and enlisting their cooperation and collaboration is the key to success for such plans.

Current literature and best practice presents a number of approaches to street design which advocate more active communities. A number of these are presented below to serve as points of reference in the following chapters.
1.4.1.1 *Dedicated Cycling Infrastructure*

Barclays Cycle Superhighway is an example of innovative infrastructure which is currently being designed and implemented in London. This superhighway is a network of cycling routes linking the outer areas of London to the centre of London. For many commuters, these cycle routes are proving to be the best and fastest way to work. The routes are designed as a radial system with routes radiating from central London outwards. These routes consist of well-designed cycle lanes with a blue surface with advance stop lines at traffic light junctions to increase the visibility of cyclists. This project was financed through a sponsorship deal with Barclays amount to about €60million.

*Figure 1.12: Cycle Superhighway, UK*
**1.4.1.2 Complete Streets**

Complete Streets are designed for safe, convenient, attractive and comfortable access for all road users, including pedestrians and cyclists, as part of an integrated scheme with a mix of land uses, well-designed buildings and links to public open areas (Ontario Ministry of Transportation, 2015).

The concept of Complete Streets is an ideal where design depends on the site specific criteria and constraints of each different street and which aims to create a workable balance between the transport needs of people of different ages and abilities and integrates different transportation modes and traffic management tools to support a sustainable urban development and quality of life (Ontario Ministry of Transportation, 2015).

The transformation of Davenport Road, located in the City of Waterloo is an example of using the complete street approach. It was constructed in the 1970s as a dual carriageway linking the residential areas to the arterial road network and to a major shopping centre. A traffic study carried out in 2006 showed that the number of accidents and vehicle speeds on Davenport Road were very high and that the road only required half the capacity which the design actually provided. Hence the road was re-designed and re-constructed as a single carriageway road with designated cycle lanes, footways and landscaping. As a result, the number of cyclists and pedestrians using this road increased and the vehicle speeds and traffic accidents decreased.

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Before | After
1.4.1.3 **Home Zones, Shared Space and Traffic Calming**

Home Zones is a concept implemented in the UK which is similar to other concepts such as the *woonerf* which was previously established in The Netherlands. The idea is to slow down traffic in residential streets such that priority is no longer given to the vehicle but to cyclists and pedestrians. In this way the quality of life in residential roads is improved, by making them places for people, instead of just being thoroughfares for vehicles. This encourages people to use streets in different ways. Additionally, drivers should feel that the car is a guest in the street.⁸

The concept of a Home Zone is therefore about a design approach rather than one specific design. While different schemes may use similar elements, each design needs to reflect the requirements and context concerned. The design principles are similar to that of shared space however applied to residential environments, a concept which is now being actively promoted by Transport Malta. Shared space is generally used to refer to streetscape designs in urban environments which minimise the separation between pedestrians and vehicles usually through the presence of a shared level surface. ⁹This may also be applied in town centres or urban areas where a mix of activities are present and need to share the street space. Home zones on the other hand are specific to residential areas. The concept of shared space will be actively promoted in Malta as indicated later on in the document.

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⁸ https://nacto.org/docs/usdg/home_zones_department_transpot.pdf
Well-designed home zones especially those based on the shared space concept and which will be implemented in Malta, will include features, such as benches, tables, ICT equipment, traffic calming measures, reduced speed limit, enforcement measures, and play equipment to encourage social interaction and increased road safety for bicycle users and pedestrians alike.\textsuperscript{10}Street trees and planters will also form an integral part of the street layout together with re-organized on street parking. These various elements will be used in the overall design of the street to reduce urban traffic speed. Additionally, features such as sharp changes of direction for traffic and pinch points in the carriageway width where only one vehicle can pass at a time will also be used. A typical target speed is usually set at around 30 km/h. \textsuperscript{11}Traditional traffic calming features such as speed bumps can also be used. Traffic calming features can also be used to reduce vehicular speeds without necessarily adopting either a home zone or shared space approach. The images below give examples of these different approaches.

\textsuperscript{10} https://en.wikipedia.org/wiki/Home_zone
\textsuperscript{11} http://info.westberks.gov.uk/CHttpHandler.ashx?id=37439&p=0

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\caption{Figure 1.14: Chester Town Centre - Traffic Calming leading to sharing of space}
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\caption{Figure 1.15: Delft, The Netherlands - Traffic Calming}
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\caption{Figure 1.16: London - Traffic Calming}
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\caption{Figure 1.17: Schiedam, The Netherlands - Shared Space in the Town Centre}
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Figure 1.18 Cycle Rack infrastructure Copenhagen

Figure 1.19: Dedicated cycling infrastructure in Milano
http://njbikeped.org/portfolio/home-zone-concepts-and-new-jersey

Figure 1.20: Dedicated cycling infrastructure in Barcelona
https://www.sustrans.org.uk/policy-evidence/the-impact-of-our-work/home-zone-project-helps-communities-redesign-their-streets
1.5 Types of Cyclists

When drawing up a strategy of this kind, it is important that one understands the different types of users which have different needs and requirements and which at the end of the day are determined by the purpose of their journey and their cycling experience and physical ability. Such understanding is important to enable the appropriate design and infrastructure required to meet the needs of the different types of users (LTN 1/04).

Figure 1.21: Different Types of Cyclists

The different types of cyclists are (LTN 1/04):

- **Fast Commuter**: has experience and confidence in different road situations and will prefer a high-traffic route if it is quicker.

- **Utility Cyclist**: does not have sufficient experience and confidence hence seeks segregated cyclist provisions at busy junctions and in high-speed traffic.

- **Inexperienced Utility**: cycling for commuting purposes and for leisure and would prefer a route with less traffic.

- **Child**: may require segregated direct routes from residential areas to school and design must cater for personal security issues. Child cyclists are expected in residential areas and on cycle routes intended for leisure purposes.
A CYCLING STRATEGY AND AN ACTION PLAN FOR MALTA
2 A Cycling Strategy for Malta

The promotion of cycling as an alternative mode of transport is considered to be an essential part of any scheme or strategy to promote sustainable mobility through which transport authorities can address traffic congestion, improve accessibility, promote personal health, reduce air pollution as well as contribute towards lower greenhouse gas emissions, all of which are attributes necessary to improve the quality of life of any community. As a result, the need for a national cycling strategy was identified in the Transport Master plan 2025 as a means of contributing to the strategic goals set out in the National Transport Strategy 2050. Section 2.1 illustrates how an increase in cycling can contribute towards achieving the strategic goals outlined in the NTS by discussing the associated benefits. The strategic goals set out in 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
2.1 Identifying the Benefits

Cycling in general, but especially as a means of transport has many benefits. It will contribute towards a much healthier lifestyle and active living, and therefore, can also contribute towards reducing the national healthcare bill. It can also result in the reduction of traffic congestion, create new market niches and opportunities for tourism and above all contribute towards a cleaner environment, as well as indirectly address Malta’s national 2020 and 2030 climate change and energy targets.

Healthwise, ten minutes of cycling on a daily basis can contribute to much of the recommended 45 to 60 minutes physical exercise per day for adults, as indicated in the national Health Strategy entitled: A Healthy Weight for Life: A National Strategy for Malta - 2020. This apart from the fact that a non-healthy lifestyle will eventually lead to serious diseases and illnesses including cardio-vascular disease, different forms of diabetes as well as different forms of cancers.

Increasing the number of people who make short trips by bicycle will bring about many advantages and benefits for society at large as well as to the individual. This cycling strategy therefore presents us with both challenges and opportunities since it cuts across a number of national priorities, from health to the environment to climate change, keeping also in mind, Malta’s mandatory environmental and energy targets. Some of the most important aspects which Malta can benefit from are outlined below.

2.1.1 Improves the Health of a generally Obese Nation

Following a Eurostat European Health Interview Survey carried out in 2014 and published in October 2016, Malta tops the share of obesity rates among the EU population for persons aged 18 years and over. Statistics show that one young adult out of every ten, is considered to be obese (12.0%), while one in three older persons are also considered to be obese (33.6%), the highest among EU Member States, second to Latvia and the United Kingdom. This contrasts sharply when compared to the statistics for The Netherlands which has a cycling culture and which comes third after Italy and Romania with 10.7% and 9.4% respectively.

With respect to the obesity levels for males and females, there is a stark difference where the share for men is much higher than that of women; 28.1% for men when compared to 23.9% for women. The EU average in both cases is 16.1% for men and 15.7% for women. What is most worrying is the fact that within the share of those obese in Malta, 20.7% fall under the Higher Education Level segment as opposed to the 30.3% of a lower education level. Once again, both percentages are the highest of all the EU countries.

12 https://extranet.who.int/nutrition/gina/sites/default/files/MLT%202012%20A%20Healthy%20Weight%20for%20Life.pdf; Page 41
13 http://ec.europa.eu/eurostat/documents/2995521/7700899/3-20102016-BP-EN.pdf/c26b037b-d5f3-4c05-89c1-00bf0b98d646
The picture doesn’t get any better when one takes into account the whole of Europe. According to the World Health Organization, in 2014, Malta leads the EU among the highest obesity rates, while ranking third in the whole of Europe only after Andorra and Turkey. The high rate of obesity among the Maltese population has followed an upward trend since 2008 where at the time Malta ranked second after the Czech Republic.

In 2012, the Maltese Government published its national strategy on nutrition entitled; *A Healthy Weight for Life: A National Strategy for Malta 2020*. The overall aim of this strategy was to curb and reverse the growing proportion of overweight and obese children and adults among the population in order to reduce the health, social and economic consequences of excess body weight.

In order to measure the effectiveness of this nutrition strategy, the Government aims to demonstrate the following improvements in children and adults by 2020:

- Reduction in the self-reported proportion of the adult population who are overweight from 36% to at least 33%
- Reduction in the self-reported proportion of the adult population who are obese from 22% to at least 18%
- Reduction in the proportion (measured by anthropometric studies) of 7 year olds who are overweight and obese from 32% to 27%
- Maintenance of the proportion of 13 year olds above the 95% weight (obese) below 15%

Of particular importance in this strategy, is the fact that Cycling is one of the activities indicated to curtail over weight and obesity.

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14 https://extranet.who.int/nutrition/gina/sites/default/files/MLT%202012%20A%20Healthy%20Weight%20for%20Life.pdf
15 https://extranet.who.int/nutrition/gina/en/node/14838
Table 2.1: Eurostat Obesity Chart

Prevalence of obesity (%) (BMI>30.0KG/M²) among adults in the WHO European region based on WHO 2008 estimates

Notes: the country codes refer to the ISO 3166-1 Alpha-3 country codes. Data ranking for obesity is internationally the same as for the overweight data. BMI: body mass index. Source: WHO Global Health Observatory Data Repository (1)

Table 2.2: Prevalence of Obesity
Prevalence of overweight and obesity (%) among Maltese adults based on WHO 2008 estimates

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>68.4</td>
<td>60.4</td>
</tr>
<tr>
<td>Obesity</td>
<td>27.3</td>
<td>30.3</td>
</tr>
</tbody>
</table>

Source: WHO Global Health Observatory Data Repository (1)

Table 2.3: Prevalence of Obesity

Cycling increases the activity of the human body and reduces the symptoms of a sedentary life. Lack of physical activity is a risk factor for cardiovascular disease, diabetes, types of cancer, hypertension, bone and joint diseases and depression (Ontario Ministry for Transport, 2015). Cycling burns more calories than travelling in a motor vehicle and we can meet the need for physical activity by performing some trips by bicycle. As more people become more fit by embracing cycling as an efficient mode of transport, this can help reduce the mortality rate and disease-related costs for society thus mitigating the investment costs in infrastructure.16

People such as the elderly and people who suffer from mobility restrictions who would still like to practice cycling but prefer to have a less strenuous exercise, may consider the using an electric bicycle (Pedelec) which is partly propelled by an electric motor.

In general, cycling is also a tool for stress management to maintain mental health and well-being, improves self-confidence and forms friendships (Ontario Ministry for Transport, 2015).

2.1.2 Improves Air Quality and reduces Carbon Footprint

Urban transport using carbon-based fuels generates an array of pollutants via the internal combustion process emitted via the vehicle’s tail pipe such as Carbon Monoxide, NOx and SOx as well as PM10. In addition the combustion of carbon-based fuels also emit Carbon Dioxide. When burned, one litre of gasoline emits about 2.3kg of carbon dioxide. Carbon dioxide is a greenhouse gas and is the main cause for climate change.

Cycling generate no emissions and no other air pollutants what so ever hence replacing vehicle trips with cycling trips would contribute towards the reduction of all types of emissions. In addition cycling saves on fuel use, thus reducing energy dependence on fossil fuels. Therefore cycling is a measure which contributes towards the attainment of Europe’s 2020 climate change and energy targets and the efforts to decarbonise transport. These positive impacts can be achieved only if cycling partly replaces ICE motor vehicle trips.

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16 EPRS, 2016.
2.1.3  **Facilitates the Potential for Cycling Tourism**

Malta’s Mediterranean Climate is an excellent backdrop for cycling tourism. Cycling Tourism is a niche market which has great potential to grow and develop thus creating new jobs which further enhance the economy. This type of tourism attracts tourists to areas other than the primary recreational and entertainment areas on the islands thus encouraging the overspill of the economic benefits of tourism onto Malta’s rich village cores, rural and urban areas.

2.1.4  **Reduces Traffic Congestion**

Replacing motor vehicle trips with bicycle trips reduces car use and dependence on the motor vehicle. This in turn reduces traffic congestion and hence delays in journey times, lost productivity and fuel wastage. The Malta National Transport Strategy indicates that the cost of congestion in the ‘Do Minimum’ scenario by 2050 would equate to 8.2% of GDP (optimistic 6.7%, pessimistic 10.1%). The take up of cycling is therefore seen as crucial in reducing the cost of congestion and its economic impact.

2.1.5  **Improves Accessibility**

Society is made up of different user groups. The transportation system therefore needs to be accessible and provide a service for all user groups. In this respect, cycling is seen as an important transport mode as it provides people, across all ages, with a low-cost mode of travel to reach educational facilities, job destinations and services (EPRS, 2016). With respect to children, besides ensuring improved physical health and fitness, it also teaches navigational skills and instils a sense of travel independence. This has the added benefit of cultivating a cycling habit resulting in reduced car dependency and motor traffic in the future (EPRS, 2016).
2.1.6 Reduces Noise Impact

Like in many other European cities, in Malta the main source of noise pollution is generated by road traffic thus creating disturbance to people and reduces the quality of life. Noise pollution is considered a nuisance since it can cause reduction in productivity and in some cases leads to health problems. In some cases noise pollution also leads to the depreciation of property. Increasing cycling as a mode of transport can therefore result in a reduction of vehicular traffic and as a result a reduction in noise pollution.

2.1.7 Improving the Quality of Urban Areas

Cycling is recognized as being a component to improve the liveability and attractiveness of urban areas. Cities which have established good cycle inter-connected networks have revitalized the urban and commercial neighbourhoods. A good quality urban environment is also important to facilitate cycling. This is therefore self-perpetuating as the presence of cyclists can then contribute to the quality of an urban area through the dynamics provided as well as through the reduction of vehicular traffic.
2.2 Vision and Strategic Goals

Increasing cycling in Malta is considered to be the way forward as this will reap the long-term benefits outlined above. The aim of the strategy is to promote a transport modal shift towards cycling. This is also being seen as a tool to develop cycling tourism as a niche market. However, this can only be achieved with the determination necessary to overcome the challenges and with the support and cooperation of all stakeholders involved. The medium term VISION which this strategy seeks to achieve by 2025 is therefore that:

*Cycling is to become a transportation mode which will be accepted as a part of everyday life and which will be considered to be a highly-valued transportation mode.*

In order to achieve this vision, FIVE STRATEGIC GOALS have been developed which determine the strategic direction necessary to achieve this vision. The strategic goals are:

- Increase awareness and improve cycling skills throughout the Maltese demographic strata.
- Ensure a connected, cycle-friendly urban environment where cycling infrastructure forms an integral component.
- Improve safety conditions.
- Develop a cycling culture.
- Establish strong cooperation networks between all respective stakeholders.

As a means of monitoring the achievement of the vision and goals, the following targets have been identified which have been set in line to the EU Commissions 2011 White Paper; Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system.

- Double the number of people who choose cycling as a mode of transport for trips less than 5km, by 2050 as compared to 2010.
- Reduce injuries involving cyclists by 50% by 2050.
2.3 Objectives

Ten objectives have been set so as to help achieve the vision and strategic goals. These are as following:

1. **To promote the creation of Active Cycling Communities.**

2. **Ensure that spatial planning policy works towards facilitating cycling.**

3. **To design a safe and improved network of cycling infrastructure and facilities.**

4. **To ensure that the design of cycling infrastructure and facilities is according to standard guidelines.**

5. **To ensure that interventions promoting cycling are considered during the planning of Temporary Traffic Management Schemes.**

6. **To ensure that the maintenance of cycling infrastructure is included in the maintenance schedules of roads.**

7. **To establish an integration between cycling and public transport.**

8. **To increase cycling promotion, training and education programmes according to age groups.**

9. **To publicise new cycle infrastructure in a coherent manner based on good practice.**

10. **To ensure that National Legislation promotes and facilitates cycling.**

2.3.1 To promote the creation of Active Cycling Communities

To develop a cycling culture and ensure that cycling becomes a part of everyday life requires much more than the implementation of infrastructure. It also requires a change in mind set towards cycling and a change in lifestyle. In this sense society has to be willing and be interested in leading a more active lifestyle. Our local communities can be an important starting point to achieve this. Various events, activities and programmes can be organised through local councils and other stakeholders so as to promote leading a more active lifestyles. Local cycling clubs can also be set up.

Besides events and activities the provision of services which could attract new cyclists are also important. Bike sharing services for example can play an important role and the action plan therefore introduces measures to improve the provision and spread of bike sharing.
2.3.2 Ensure that spatial planning policy works towards facilitating cycling

An integrated approach to transport and land use planning is an important aspect when considering sustainable and alternative transport modes. In this sense it is not only transport policy which needs to promote and facilitate cycling, spatial planning policy also plays an important role. Spatial planning policy can facilitate cycling by considering ease of access by bicycle when determining land use locations. Additionally, policies can ensure that where relevant, developments provide the necessary infrastructure and facilities as may be required. Potential policy improvements are therefore included as measures in the action plan.
2.3.3 To design a safe and improved network of cycling routes and facilities

As mentioned in Chapter 1, Transport Malta has recently published the National Transport Strategy 2050 and the Transport Master Plan 2025 which were prepared to provide a planning and design framework to ensure that projects and major initiatives are taken within the context of a holistic plan. The need for a network of Safe Cycling Routes is included and referred to, in the National Transport Master Plan 2025 (Transport Malta National Transport Plan 2025, 2017). This objective addresses this need. Safe and efficient cycling infrastructure is intended to promote a modal shift towards cycling as a means of moving from point of origin to a destination and not only as a sports activity. This means that planning for cycling infrastructure needs to identify the requirements of the community and subsequently meet the requirements as well as the forecasted demand. There are a number of approaches which could be adopted to develop the infrastructure and facilities which would form this network. These are outlined further in section 3.1.

2.3.4 To ensure that the design of cycling infrastructure and facilities is according to standard guidelines

To encourage the increase of cycling as a mode of transport, we need to re-think how we specify, design and construct transport infrastructure. This involves viewing the road space as a public space which needs to be shared, safe and efficient for all road users of all ages and abilities. Currently, design guidelines and standards for the provision of cycling infrastructure specific to the Maltese context do not exist. This objective therefore seeks to address this lacuna. Specific measures have therefore been included in the action plan to address this. While the action plan currently presents the overall approach which will be adopted for the development of a National Safe- Cycle Route Network, additional documentation is needed to ensure that this is developed according to design standards and specifications.

2.3.5 To ensure that interventions promoting cycling are considered during the planning of TemporaryTrafficManagementSchemes

As Malta continues to develop and maintain its road network, infrastructural works are constantly on-going. Traffic management schemes are usually implemented while such works are taking place. While diversions and provisions normally provide for vehicles, pedestrians and public transport, cyclists are often not given the necessary attention. This objective seeks to remedy this.

2.3.6 To ensure that the maintenance of cycling infrastructure is included in the maintenance schedules of roads

As the provision of cycling infrastructure increases and as time goes by maintenance will be required. Road infrastructure is normally maintained using maintenance schedules and framework agreements. It will therefore
be necessary to ensure that measures are taken to include cycling infrastructure in such frameworks and make sure that the required works contracts are in place when required.

2.3.7 To establish an integration between cycling and public transport.

Transport Malta is also promoting cycling as one of the modes of transport within an array of modal choices and based on the concept of intermodality, further promoted through the introduction of the concept of local transport hubs, known as SMITHS (Sustainable Multi Intermodal Transport Hubs). The integration of cycling with these transport hubs is seen as essential. A critical aspect is designing for a safe, easy and efficient connection between cycling and transit by the provision of end-of-trip facilities such as secure bicycle parking or last-mile measures such as bike sharing. Measures to address this have therefore been developed as part of the action plan.
2.3.8  To increase cycling promotion, training and education programmes according to age groups

A good understanding, across all road users, is necessary to establish cycling as a safe and valuable norm of everyday life and for it to be considered an intrinsic part of the transportation system. All public roads are environments for use by pedestrians, motor vehicle users, cyclists and public transport patrons. Some public roads may prioritise pedestrians and cyclists whilst other roads, such as the arterial and distributor road network, focus on all classes of motor vehicles. However, all roads must be safe for all road users. To ensure this, it is important that all road users are aware of how different road types can be used by different transportation modes and the varying priorities.

The concept of a road, as a shared public space, is the basis on which Transport Malta is developing an integrated and efficient urban safe cycling route network, where cycling is considered as an important transportation mode. For this concept to function Transport Malta will be embarking on an awareness campaign to show how such concepts will work. It is a fact that many potential cyclists are afraid of cycling on the road because they might lack the basic skills or knowledge to ride safely in traffic. Cycling Education and Training Programmes are designed to improve cycling skills and to increase awareness. Different age groups require different education programmes and this poses a challenge. Various programmes can be developed to provide information and awareness which change behaviour and develop skills using different types of teaching aids according to a structured format. Such educational programmes can be designed as follows:

- **Children:** Training is focused on the basic rules of the road and practical cycling. Such programmes are best handled by the schools however there are usually challenges related to the demands of the school curriculum and train-the-trainer support.

- **Adults:** Training is focused on the appreciation of riding a bicycle, sharing the road space with motor vehicle traffic and awareness of the advantages of cycling as a mode of transport. The challenge is that, in the case of adults, the training reaches only those interested in learning.

- **Motorists:** Training is focused during driver training and driving license theory and practical testing.
2.3.9 To publicise new cycle routes in a coherent manner based on good practice

Cycle routes and particularly the new proposed safe cycling routes will be implemented in stages. As each part of a designed route is completed and becomes operational, it will be well publicised to ensure that potential new cyclists understand it and are aware of it. Cycling groups and agencies would be a great support to assist in this promotion and they should be included in the publicity planning phase and the communication with cyclists. It is important that the cycle facilities are clearly described using simple non-technical terminology and unusual signage and/or markings should be illustrated as part of the publicity itself. Such information is to be brought to the attention of all road users including pedestrians and drivers. There are multiple media tools which can be used to get the message across.

The role of schools is also important because, first and foremost, as it is important to instil a culture of cycling in children who will be the adults in the years to come. Schools can help to publicise and encourage the proper use of such routes and schemes. The Kummissjoni Nazzjonal Persuni b’Disabblita should also be included in this promotion because it is important that they help to introduce such new measures and features of the schemes to blind and partially sighted persons.
2.3.10 To ensure that National Legislation promotes and facilitates cycling

An essential part of any functioning transportation system is the legislation which regulates it. Legislation needs to cover all transport modes and particularly the relationship between various transportation modes and their interaction. Some legislation does exist to regulate cycling as a transportation mode, however this is quite limited. Additionally, some aspects might actually not facilitate the increase in cycling as a transportation mode which this strategy aims to promote. The national legislation therefore needs to be reviewed and updated so as to ensure that it promotes and facilitates cycling. Some specific aspects have already been identified and included as measures in the action plan.
2.4 Conclusion

In conclusion, while this strategy provides a strategic direction necessary to achieve the 2025 Vision, the Action Plan will be the policy tool to reach the objectives. The Action Plan will be implemented after a consultation process to be carried out with stakeholders to confirm and even include projects, measures and initiatives for implementation during the lifetime of the Action Plan. The Ministry for Transport and Infrastructure together with Transport Malta are committed to reach the targets identified in the Vision however, these can only be achieved with the cooperation of all related stakeholders, including Local Councils, road users, cycling organizations, the private sector and last but not least the general public.

Only in this way can we ensure that an integrated strategic approach is adopted in the strategy. Furthermore, it is safe to assume that many cyclists are also car drivers, while both cyclists and car drivers are also pedestrians. All road users may therefore choose multiple travel modes thereby strengthening the need for an integrated and holistic transportation system.
3 An Action Plan to Promote and Increase Cycling in Malta

Research carried out involved a review of various cycling interventions, policies and strategies implemented in other cities. An exercise was carried out so that where possible some of these measures and good practices which have already been tried-and-tested and which are suitable for Malta’s geophysical specificities, have been included in this action plan. When considering the transfer of such good practices to a different geographic context such as Malta, the receptive topographic realities were considered. In Malta’s case for example, the limited road space is a typical limiting factor and this applies for both open roads as well as Malta’s narrow urban streets, both of which have to accommodate all road users. A balance therefore has to be reached so as to ensure that the network becomes available and accessible to all transport modes and users. Within such limitations, one has to make sure that the limited resources, being infrastructure and/or financial are utilised to the fullest to maximise the possible benefits.

In this respect, this action plan promotes an integrated approach to prioritize future investments directed towards sustainable mobility, among which cycling and cycling infrastructure, and encourages policymakers to promote the adoption of active travel choices. It is expected that as cycling activities and services increase the resulting positive impact will be more visible, as experience has shown in other countries. Malta should not be an exception. Transport Malta’s integrated approach means that all forms of sustainable modal choices are offered to users at a local level (although not exclusively) through the development of local transport hubs, where users would be offered the choice of a wide range of sustainable modes to carry out a particular journey. This approach is further outlined in section 3.1.
3.1 Developing a safe National Cycling Route Network

The implementation and deployment of cycling infrastructure can take various approaches as outlined in section 1.4.1. In some cases, as experience has shown, cycle lanes may have been introduced because space permitted with the result that these were and are underutilised, possibly due to lack of demand in the contexts where they have been introduced or because of discontinued connections. Therefore at design stage and where possible one has to make sure that such cycle lanes are implemented where they will be used and possibly connect with each other.

In other cases, the potential to introduce segregated cycle lanes may be limited due to existing roads widths and space restrictions. In Malta’s case with restricted road and street widths, especially in urban centres, segregated cycle lanes cannot in general be provided, due to the current urban morphology including distinct streetscapes, expensive expropriation costs, committed land usage and other environmental concerns, while leaving access to pedestrians, on street parking, public transport and vehicle access.

So as to address these limitations, Transport Malta is introducing the concept of “Urban Safe Cycling Routes” particularly in urban areas. This policy approach is different from the provision of the traditional cycle lanes, by using secondary roads and urban streets, as shared road spaces with enforceable reduced speed limits, and which will be promoted as safe cycling corridors.

When planning cycling infrastructure, it is imperative to ensure integration with other transport modes infrastructure and the roadside environment in a consistent manner over time. This enables other transport users to gradually appreciate the presence of cyclists on the road, rather than considering them as an obstruction and further more appreciate cycling as a means to reduce traffic congestion. Through the provision of a conceptual model, specifically designed and tailor made for Malta’s specificities and geographical realities, the setting up of a National Safe Cycling Route Network that connects people and destinations with other modes of transport through the local transport hubs which as being set up. The implementation of the National Safe Cycling Route Network will be accompanied by an extensive educational and promotional campaign.

The National Safe Cycling Route Network will therefore be composed of three categories of cycling routes. These are: Inter-Urban Cycling Routes; Urban Safe Cycling Routes; and Cycle Friendly Streets as further explained below. Additionally, design standards will be developed to regulate the various cycling infrastructure provision which will be allowed under each category. Through such a policy, Transport Malta believes that cycling in Malta will have a very positive future. This in turn will bring about a growth in sustainable mobility which in turn is critical for the economic growth and prosperity of the whole country.
3.1.1 Inter-urban Cycle Routes

These cycle routes will generally be those found on or alongside major roads where the allowable speed limits are greater than 50 km/hr. This also relates to infrastructure provided outside built up areas where the maximum speed limit is 80 km/hr. In these cases, the infrastructure provisions should therefore be provided to ensure safety around high volumes of traffic moving at high speeds.

3.1.2 Urban Safe Cycling Routes

The concept for these routes has been specifically developed to create safe cycling corridors to respond to cycling desire lines. They will address the provision of cycling infrastructure within built up areas where maximum speeds are 50km/hr. Cycling infrastructure will be provided depending on the road context, classification and functionality. In addition, depending on the type of infrastructure which the road width permits, reduced maximum traffic speeds and traffic calming measures will be introduced to ensure safety. ITS infrastructure to give cyclists priority especially at traffic junctions, will also be introduced together with specific traffic signs to promote road safety. Additionally a number of CCTV cameras will be introduced to ensure that the revised speed limits by vehicles are adhered to. These routes will therefore be developed using a mixture of treatments which may include, cycle lanes, traffic calming interventions, shared pedestrian footpaths or shared space concepts as may be required.

The urban safe cycling routes will also be distinctively branded along the same branding lines as the SMITHs concept so as to promote homogeneity.

3.1.3 Cycle Friendly Streets

Besides defining the approach to be adopted for the introduction of specific cycling infrastructure and the creation of cycling corridors, this strategy and action plan also recognises that any cycling journey begins and ends in a local street. Local streets, which primarily serve origin and destination vehicular traffic rather than through traffic, do not necessarily require specific infrastructure, to render them safe for cyclists. However, they may still facilitate and encourage unsafe vehicular speeds if not designed appropriately. There is therefore the need to ensure that local streets create the appropriate conditions to ensure safety for cyclists and pedestrians. This can be through traffic calming techniques or concepts such as shared space or home zones as explained in section 1.4.1. The creation of cycle friendly streets is therefore also important if a truly continuous National Cycle Route Network is to be created.
3.2 Measures

While the previous section sets out the general approach to be adopted for the creation of a National Cycle Route Network, this section sets out the measures necessary to achieve the vision, strategic goals and objectives set out in Chapter 2, as these go beyond the provision of a National Cycle Route Network. These measures are essential to the success of a functional inter-modal transport system. Such will enable commuters to choose cycling as their travel mode from transit hubs, such as local multi intermodal transport hubs (SMITHS), bus interchanges, park-and-ride facilities and car parks to their final destination. The gradual and continuous increase in the provision of cycling infrastructure and its integration within the broader transport network will inevitably need innovative design methods, problem-solving techniques, collaboration and cooperation with stakeholders and new ideas.
The measures are as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Measure</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish a structured stakeholder consultation forum in the form of a National Cycling Platform, entitled CYCLING MALTA to further promote cycling in Malta, and maximize the potential of integrating cycling networks and services.</td>
<td>Short</td>
</tr>
<tr>
<td>2</td>
<td>Carry out a study to identify desired routes and connectivity issues in order to identify a National Cycle Route Network as a connected system.</td>
<td>Short</td>
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<tr>
<td>3</td>
<td>Implement a GIS platform for the National Cycle Route Network.</td>
<td>Short</td>
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<tr>
<td>4</td>
<td>Develop Design Standards and Guidelines regulating the provision of cycling infrastructure in Malta to ensure adherence.</td>
<td>Short</td>
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<tr>
<td>5</td>
<td>Develop a regulatory framework and guidelines for the provision of bike sharing services.</td>
<td>Short</td>
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<td>6</td>
<td>Ensure that the design of temporary traffic management schemes, put in place during road construction projects, provide for cyclists safety.</td>
<td>Short</td>
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<td>7</td>
<td>Initiate discussions with the Planning Authority to ensure that major new developments to be approved, provide cycle parking and, the necessary cycling infrastructure and facilities as a planning gain.</td>
<td>Short</td>
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<tr>
<td>8</td>
<td>Initiate discussions with the Planning Authority to explore the potential for policy requirements in relation to shower and changing facilities at places of work. Similarly, government and private companies are encourage to provide such facilities at the place of work.</td>
<td>Short</td>
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<tr>
<td>9</td>
<td>Collaborate with motorcycling schools to or any other related institutions to establish and provide training programs for cycling.</td>
<td>Short</td>
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<td>10</td>
<td>Enhance education and training for night-time cycling skills and techniques.</td>
<td>Short</td>
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<td>11</td>
<td>Develop Incentives for the Introduction of Bike to Work Schemes as part of green travel plans.</td>
<td>Short</td>
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<tr>
<td>12</td>
<td>Ensure that Questions in the National Household Travel Survey are updated to address bicycle use.</td>
<td>Short to medium</td>
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<tr>
<td>13</td>
<td>Establish Training Programmes for the education of professionals in designing cycling routes and cycling infrastructure.</td>
<td>Short to medium</td>
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<tr>
<td>14</td>
<td>Ensure that where required, new road designs provide for cycle lanes as an integrated part of the overall design, where road width allows.</td>
<td>Short to medium</td>
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<tr>
<td>15</td>
<td>Include cycling related measures in the Sustainable Urban Mobility Plan (SUMP) for the Valletta Region which are aimed to be implemented at local level.</td>
<td>Short to medium</td>
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<tr>
<td>16</td>
<td>Encourage the introduction of e-bike sharing services and expand the bike sharing services.</td>
<td>Short to medium</td>
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<tr>
<td>17</td>
<td>Explore and study the potential for facilitating the use of cargo-bikes and e-cargo bikes.</td>
<td>Short to medium</td>
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<tr>
<td>18</td>
<td>Ensure that a foreseen GIS Platform for the National Cycle Route Network will be integrated with relevant journey planning applications.</td>
<td>Short to medium</td>
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<tr>
<td>19</td>
<td>Implement Urban Safe Cycling Routes through pilot projects connecting them to the local Sustainable Multi-Intermodal Transport Hubs (SMITHS) in consultation with Local Councils.</td>
<td>Short to medium</td>
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<tr>
<td>20</td>
<td>In collaboration with Stakeholders, implement Pilot Projects for Safe Cycling Routes to Schools and educational establishments as well as the provision of bicycle parking. This will lead to the strengthening of links with schools to develop cycling travel plans.</td>
<td>Short to medium</td>
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<tr>
<td>21</td>
<td>Implement cycle lanes at critical roundabouts where applicable.</td>
<td>Short to medium</td>
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<tr>
<td>22</td>
<td>Establish a distinct branding for the Urban Safe Cycle Routes as part of the SMITHS project.</td>
<td>Short to medium</td>
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<tr>
<td>23</td>
<td>Develop information on cycle training, bicycle maintenance and cycle infrastructure and make it easily accessible.</td>
<td>Medium</td>
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<tr>
<td>24</td>
<td>Develop information on cycle training, bicycle maintenance and cycle infrastructure and make it easily accessible.</td>
<td>Medium</td>
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<td></td>
<td>Action Plan</td>
<td>Duration</td>
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<tr>
<td>25</td>
<td>Improve the security of existing cycle parking and provide additional</td>
<td>Medium</td>
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<tr>
<td></td>
<td>secure cycling parking provision at transport interchanges and local</td>
<td></td>
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<td></td>
<td>transport hubs.</td>
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<tr>
<td>26</td>
<td>Identify bus stops and interchanges where cycle parking would provide the</td>
<td>Medium</td>
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<td></td>
<td>last-mile connection and prepare a work programme for implementation in</td>
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<td></td>
<td>phases.</td>
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<td>27</td>
<td>Reduce traffic speed limits in Urban Areas in relation to Urban Safe</td>
<td>Medium to</td>
</tr>
<tr>
<td></td>
<td>Cycling Routes and Cycle friendly Streets as well as enforcing these</td>
<td>long</td>
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<td></td>
<td>speed limits with CCTV cameras in real time.</td>
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<tr>
<td>28</td>
<td>Provide a yearly fund for private companies to provide shower and changing</td>
<td>Continuous</td>
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<tr>
<td></td>
<td>room facilities at the place of work.</td>
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<tr>
<td>29</td>
<td>Provide facilities for bicycle users across all public entities and public</td>
<td>Continuous</td>
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<tr>
<td></td>
<td>authorities.</td>
<td></td>
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<tr>
<td>30</td>
<td>Identify key centres of attraction / work places/ leisure and implement a</td>
<td>Continuous</td>
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<tr>
<td></td>
<td>minimum of one Cycle Parking Scheme at an identified location every year.</td>
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<tr>
<td>31</td>
<td>Engage with shop owners and shopping malls to provide cycle racks for</td>
<td>Continuous</td>
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<td></td>
<td>customers, as part of the planning permit application process.</td>
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<tr>
<td>32</td>
<td>Promote facilities on buses to accommodate boarding a bicycle especially</td>
<td>Continuous</td>
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<tr>
<td></td>
<td>at all transport hubs.</td>
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<tr>
<td>33</td>
<td>Plan, design and implement a minimum of three Urban Safe Cycling Routes</td>
<td>Continuous</td>
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<tr>
<td></td>
<td>per year.</td>
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<tr>
<td>34</td>
<td>In collaboration with the new roads agency, Transport Malta and other</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td>Stakeholders implement Pilot Projects for Cycle Friendly Streets</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Implement enforcement measures for speed limits in Urban Areas</td>
<td>Continuous</td>
</tr>
<tr>
<td>36</td>
<td>Introduce ITS measures such as bicycle prioritisation at Signal Controlled</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td>Junctions where possible.</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Implement Advance Stop Line and Cycle Feeders at Signal Controlled</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td>Junctions where necessary.</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Implement a minimum of twelve Trixi Mirrors every year at signal</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td>controlled junctions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Ensure that road humps do not extend for the full width of the road up to the edge of the footway along promoted and popular cycle links.</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Upgrade a number of crossings to a Toucan Crossing every year.</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Implement cycling information displays at strategic locations.</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Implement intelligent cats’ eyes along critical commuter cyclist routes to be in a position to relay real-time road and weather information to cyclists and other road users through the Traffic Control Centre. Such cats’ eyes also collect traffic flow data. Gradually increase the number of Intelligent Cats’ Eyes by equipping a minimum of 3 roads per year.</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Add fillets to standard round topped road humps to create a sinusoidal transition along promoted and popular cycle links.</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Review and develop a maintenance plan that prioritises pothole and drainage repairs and cleaning for cycling infrastructure.</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Ensure that cyclists are taken into consideration when designing storm water drainage systems.</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Establish a checklist for the preparation of Bike-ability Audits and for Road Safety Inspections.</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Encourage Local Councils to set up Local Bicycle Clubs to organize daily activities for residents.</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Update National Legislation to address the regulation of speeds in cycle friendly streets and shared pedestrian footpaths, contraflows, pedelec registration, helmet usage and protection of vulnerable road users.</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Continue to lead area-wide campaigns to encourage cycling as a mode of transport in a more rigorous and structured manner to ensure effectiveness by focusing on specific target areas in succession.</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Establish structured cycling training in schools leading to the Cycling Proficiency Test.</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Establish Educational Campaigns including the promotion of new cycle routes and features.</td>
<td></td>
</tr>
</tbody>
</table>
Transport Malta is currently working on the SMITHS project, which addresses a number of the above measures. Details about the status of this project can be found in Annex 1.

4. Monitoring and Evaluation

The effectiveness of the measures outlined in this Cycling Strategy will be measured according to a number of indicators. The aim is to continue to develop on existing measures and monitor progress to establish future policy and design criteria. The monitoring exercise will assess the effectiveness of the measures against the set targets of this strategy. The monitoring will be based on the collection and evaluation of the following data (Transport for Greater Manchester, 2014):

- Mapping the existing cycling infrastructure and including information regarding cycle network lengths, advance stop lines, junction treatments, cycle parking provision, traffic volumes, 85th% motor vehicle speeds.
- Volume of cyclists of the routes
- Cyclists satisfaction by age group
- Accident data involving cyclists
- Assessment of investments made and compared with accident reduction as applicable.
ANNEX 1
THE SMITHS PROJECT
1.1. The SMITHs Concept

Utilisation of public transport (especially in the congested urban harbour region) could be increased by providing more modal choices for transport users. The objective of the Sustainable Multi-intermodal Transport Hubs (SMITHs) Concept is to introduce multi intermodal transport hubs at a local level to provide safe, and secure transport connections for transport users between the different sustainable modes of transport in between localities that would significantly improve the use of a mix of private and collective sustainable transport modes. These hubs represent a location where different transport system will coexist together and manned by ITS interventions (Intelligent Transport Systems).

The project also includes a proper branding campaign and a real time journey app intended for both residents and tourists through which one could easily use and discover the modal choices offered, thus serving as an opportunity for one to consider leaving the private car behind, as at times, a journey can be carried out without using the personal car., like for example carrying out a simple errand within the town or village or the neighbouring one.

Different levels of SMITHs and levels of service will depend on the location of the hubs, for example whether the hub is situated near a maritime link or not. In such a location, the hub will for example include, maritime ferry links (in the case of maritime towns and villages), e-car sharing services, e-bike sharing services, e-car charging infrastructure, public transport services, public transport circular routes (in some cases using electric buses in the form of a pilot project) and transport on demand where appropriate, as well as waiting facilities. In some cases, pedestrian facilities in the form of pedestrianisation projects will be carried out.
1.2. Safe Cycling Routes Demonstration Projects

The SMITHs Project also includes the introduction and implementation of an innovative concept in the form of Urban Safe Cycling Routes showcased in the form of two demonstration projects to illustrate how the future urban national cycle route network will be developed and look like. The proposed Urban Safe Cycling Routes will inter-link with the proposed SMITHs to provide one seamless multi-intermodal journey.

This section gives an outlook on the methodology and the design intent adopted in understanding and defining the two main cycle route pilot routes as part of the SMITHs project, both of which are included in the National Transport Master Plan 2025 document published by Transport Malta. The two routes chosen for the purpose of this document are Route One and Route Two:

i. Route One connects City Gate through the Floriana Mall Gardens just outside Valletta in one continuous route up to Spinola Bay in St. Julian’s.

ii. Route Two, on the other hand will connect the commercial outskirts of Mosta with the University of Malta and Mater Dei Complex, both of which have been identified as transport hubs in their own right and included as part of the SMITHs Programme.

The outlook for these two routes is therefore to add approximately 22 km of cycle corridors to the existing 25km of cycle lanes in Malta already in place, for a total of approximately 47 km of cycling infrastructure, which would result in a ratio of over 100 km/million inhabitants. This would be well in line with both scenarios (Do Something 1 and Do Something 2) as identified in the Transport Master Plan 2025 and subsequently, as indicated within the same document, are understood to potentially result in a shift away from private vehicle usage and a significantly increased bicycle use.

Intended as an integrated part of the existing urban fabric and infrastructural amenities pertaining to the particular localities traversed by the cycle route pilots, the outlook for the routes was to promote the concept of cycling and cycling infrastructure in urban areas over and above the existing inter-urban cycle lanes and corridors. Furthermore, the urban safe cycle route pilots are recognised as part of an ongoing national effort to instil the culture of cycling as a viable mode of transport and to actively promote a commuting modal shift. This part of the project is therefore also seen as an opportunity to generate public awareness, increase perceived user safety and route recognisability by cyclists and other road user alike, whilst also providing the potential basis for observational studies with the aim to learn the behavioural particularities of local cycling along the routes as well as generate more specific usage data intended to inform any future efforts.
1.3. Design Intent Outlook

The recently published document outlining a revitalised National Transport Outlook, ‘Development of a National Transport Model Supporting Strategy Development in Malta, Transport Master Plan 2025’, point 2.2.2.5, identifies the potential benefits of developing pilot cycle corridors:

- between Valletta and St. Julian’s
- between the Three Cities and Fgura and Valletta
- between villages
- between towns and villages

The exercise of identifying the two Safe Cycling Routes pilots was therefore viewed within the context of that indicated within the Transport Master Plan 2025. As a consequence, it was decided to adopt the main suggestion of seeking to execute the St. Julian’s to Valletta Route. In the context of the SMITHs project, the possibility of the cycle route pilots to allow for the connection of various major SMITHs was recognised, the St. Julian’s to Valletta Route would indeed link the new and proposed coastal SMITHs:

- St. Julian’s Ferry Landing Site
- Sliema Ferry Landing Site
- Ta’Xbiex/Msida Ferry Landing Site

*Possible Pilot Cycling Corridors to Valletta (in red), Transport Master Plan 2025,*
The envisaged cycling route pilot will therefore not only serve as a cycling corridor allowing one to commute to the Capital City and back, but also to connect the intermittent urban fabric to the coastal ferry services, allowing commuters the choice to either cycle exclusively, or to make use of cycling and ferry services in combination.

In consultation with Transport Malta, the choice for the second route was governed by a desire to choose a route ‘where the latent demand for using safe bicycle infrastructure is the highest’ coupled with a recognition that the modal shift to cycling was also to benefit greatly from the Authority’s ability to promote cycling as an emerging culture especially with youth. The route also falls within the parameters of the transport master plan for the provision of such routes in between villages. It was therefore determined that connecting Mosta, Lija and Birkirkara effectively to the University would help connect villages which are traditionally known for their cycling use with the primary centre for tertiary level education on the island. One also needs to appreciate that Mosta in itself always had a very high bicycle culture and hence the choice to start a second route from Mosta was obvious.

Wherever possible, the specific route was selected on the basis of:

- Routes with relatively reduced traffic volume were preferred over heavily trafficked road sections.
- Make use of shared streets as a priority over shared use pedestrian footways/footpaths.
- Select the route to minimise excessive change in level / route gradients.
- Seek to create a pilot which may be eventually augmented by individual local projects as plug-ins to the main route.

On the basis of the above considerations, coupled with the general constrained nature of the existing road network, which often developed over time as a response to the general felt needs of the day, rather than through a forward-looking planning process, one understood that achieving a cycle-specific route would not be possible for the full length of any one of the cycle route pilots, as such situations were already experienced when designing standard cycle lanes in road upgrading projects.

Following recent experiences, it was furthermore determined that introducing standard cycle lanes in a context which only allowed for them intermittently would potentially aggravate concerns of safety and problematic user interaction as was expressed by the cycling lobby and cyclists in-general. Hence, in order to minimize the issues outlined above and taking into consideration the marginal space and realities of the existing road network and available infrastructure along the two Routes, Transport Malta opted for the concept of infrastructure sharing (such as street sharing and promenade sharing) as opposed to the creation of explicitly delineated cycle lanes.

The resulting design brief resulting from a combination of the desired operative principles communicated by Transport Malta to its consultants, as well as the realities of the existing local road infrastructure on which the
routes are to be implemented, is therefore not to be understood as that of creating a dedicated cycle route per se, but rather, to identify a network of streets, promenades and pathways which may be shared by cyclists together with other users, being vehicles and pedestrians and throughout which Transport Malta will be taking some active measures to allow physical connectivity and increased safety standards.

This policy outlook includes the implementation of projects which strive to strike a balance between uses and users, based on the concept of sharing and the full maximization of the infrastructure itself throughout and in the context of the prevailing physical constraints of the network.

In spite of the above however, there are still some safety issues which calls for areas of specific delineation and to this effect these sections are minimised and limited to areas where such safety issues posed a significant concern.

Being cycle route pilots, additional consideration in the design are being given to the ability of these routes to:

- Promote the local visibility of cycling as a viable mode of transport.
- Promote the concept of sharing of existing vehicular and pedestrian infrastructure, with cyclists and in general actively address the change of culture required in using cycling as a safe mode of transport.
- Promote the connectivity of individual SMITHs along the route between themselves as well as to adjacent local urban centres.
- Serve as an observational tool to Transport Malta to better understand the actual behaviour of cyclists in shared spaces and at critical junctions and paths.
- Serve as an infrastructural backbone to which locally driven projects may plug in.
St. Julian’s to Valletta Route Methodology and Definition

St Julian’s To Valletta Cycle Route Pilot - Route Tract A, St Julian’s To Balluta

St Julian’s To Valletta Cycle Route Pilot - Route Tract B, Balluta to Dingli Street
St Julian’s To Valletta Cycle Route Pilot - Route Tract C, Dingli Street To The Strand, Tract X, Three Trees to Grira, Tract Y, Dingli Street

St Julian’s To Valletta Cycle Route Pilot - Route Tract D, The Strand To Gzira Manoel Island
St Julian’s To Valletta Cycle Route Pilot - Route Tract E, Gzira Manuel Island To Ta’ X’biex, Yacht Marina

St Julian’s To Valletta Cycle Route Pilot - Route Tract F, Ta’ X’biex, Yacht Marina To Msida Yacht Marina
St Julian’s To Valletta Cycle Route Pilot - Route Tract G, Msida Yacht Marina To Sa Maison

St Julian’s To Valletta Cycle Route Pilot - Route Tract H, Sa Maison To Valletta
Mosta to University Route Methodology and Definition

Mosta To University Cycle Route Pilot - Route Tract A, Most To Lija

Mosta To University Cycle Route Pilot - Route Tract B, Lija To Balzan
Mosta To University Cycle Route Pilot - Route Tract C, Balzan To Birkirkara

Mosta To University Cycle Route Pilot - Route Tract D, Birkirkara To Ta’ Paris
Tract E, Ta’ Paris To Swata

Mosta To University Cycle Route Pilot - Route Tract F, Swatar To University
1.4. Route Identification and Design Overview

The first part of the study involved studying the existing urban context and infrastructure available so as to determine:

- The specific path for the cycle route to follow.
- The nature and extent of works required throughout the chosen route.

Being the priority route as set out in the Transport Master Plan 2025 and also the more varied and complex area relative to both infrastructural as well as expected user behavioural elements, the St. Julian’s to Valletta Safe Cycle Route Pilot was used as a reference, forming the basis of understanding for the route typologies to be tackled throughout. The applicability of the above subset thus allowed for their use also as reference for the Mosta to University Route Pilot. These typologies where nonetheless tweaked as necessary for the particularities observed. The result is a set of general route types which may be considered applicable to routes, as well as other, route specific typologies, all detailed below.
The emerging proposed types of intervention are as follows:

1. Existing Promenade (General) - Type Ref 1.0
2. Existing Promenade (Pieta') - Type Ref 1.1
3. Modified Promenade (Gzira) - Type Ref 1.2
4. Modified Promenade (Msida) - Type Ref 1.3
5. Shared Street (Uni-directional) - Type Ref 2.0
6. Shared Street (bi-directional) - Type Ref 2.1
7. Shared Street (contra flow) - Type Ref 2.2
8. Explicit Part of Street Surface - Type Ref 2.3
9. Rural Pathway - Type Ref 3.0
10. Onto Upgraded Area (extra over) - Type Ref 4.0

When mapping the cycle routes, the above sub-categories were colour coded for ease of reference:

**Cycle Route Type**

<table>
<thead>
<tr>
<th>Cycle Route Type</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Existing Promenade (General)</td>
</tr>
<tr>
<td>1.1</td>
<td>Existing Promenade (Pieta)</td>
</tr>
<tr>
<td>1.2</td>
<td>Modified Promenade (Gzira)</td>
</tr>
<tr>
<td>1.3</td>
<td>Modified Promenade (Msida)</td>
</tr>
<tr>
<td>2.0</td>
<td>Shared Street (Uni-Directional)</td>
</tr>
<tr>
<td>2.1</td>
<td>Shared Street (Bi-Directional)</td>
</tr>
<tr>
<td>2.2</td>
<td>Shared Street (Contraflow)</td>
</tr>
<tr>
<td>2.3</td>
<td>Explicit Part of Street Surface</td>
</tr>
<tr>
<td>3.0</td>
<td>Rural Pathway</td>
</tr>
<tr>
<td>4.0</td>
<td>Onto Upgraded Area (Extra-Over)</td>
</tr>
</tbody>
</table>

Colour coding of cycle route sub-categories
1.4.1. Route Type 1.0, Existing Promenade (general)

These portions of the route seek to share existing promenades/footways, currently mainly used by pedestrians, with cyclists as part of the chosen route.

Nonetheless, recognising that pedestrians tend to be attracted by prominent views when present and tend to naturally use the side of the promenade offering the best aspect, floor signage indicating the shared nature of the promenade will be purposely placed on the opposite end of the promenade so as to attract cyclists to this area.

1.4.2. Route Type 1.1, Existing promenade (Pieta’)

This portion of the route seeks to share the existing stretch of promenade/footway linking the north east portion of the Msida Marina to Sa Maison, Pieta’. The reason for it being singled out relative to type 1.0 described above is two-fold: the surface of this promenade will be finished using a pigmented asphalt mix, which will include repair works on the surface; furthermore, pedestrian usage of this area will be relatively low and it was therefore felt that this particular area could be tacitly prioritised for commuting cyclists.
1.4.3. **Route Type 1.2, Modified Promenade (Gzira)**

This portion of the route seeks to share the existing stretch of promenade/footway linking the Sliema Ferries, through the Gzira Waterfront, to the small Manoel Island Bridge. The distinguishing feature of this area is a relatively high pedestrian flow, which promoted by the promenade’s exposure to the sun and its particular view aspect to Valletta and Manoel Island, often leisurely and slow moving.

Work includes the modification of the pavement level which is found adjacent to the vehicular road so as to widen it and make it suitable to be used as a shared space.

The pavement level will be designated for shared cycling traffic in the direction to Sliema; This is intentioned to reduce the impact of cycling traffic upon the promenade level when pedestrian activity is highest. The promenade level would be designated as a shared cycling space in the direction of Valletta.

1.4.4. **Route Type 1.3, Modified Promenade (Msida)**

This portion of the route seeks to share the existing stretch of promenade/foot path linking the Ta’ Xbiex Marina area, through the Msida Waterfront to the open space in front of the Msida Parish Church. The distinguishing feature of this area is a relatively narrow pedestrian walkway which is notably constrained by intermittent planters which are built up from the promenade finished floor level. The pedestrian flow in this area does not match that found on the Gzira or Sliema promenades but is nonetheless significant and prompted by the presence of a few commercial and food and beverage outlets on the opposite side of the street.

The works envisaged in this section include the reallocation of the benches and the upgrading of street furniture and the re-allocation/transplanting of the existing trees, the removal of the built up planters, and their replacement with pre-cast planters set into the width of the current adjacent parking allocation. Works envisaged also include for pedestrian enclaves (including benches bins etc.) to be built out onto some of the area currently occupied by the adjacent car parking bays.

Priority has been given to cyclists moving in the direction of Ta’Xbiex, whereas cyclists travelling in the direction of Valletta can simply move out of the lane when encountering oncoming traffic. This is intentioned to reduce the impact of cycling traffic upon the promenade level in the afternoon peak time when pedestrian activity is highest. Furthermore, the sea-side part of the promenade is thus tacitly prioritised for pedestrians and joggers who wish to make use of the promenade or enjoy the view beyond.
1.4.5. Route Type 2.0, Shared Street (Unidirectional)

These portions of the route seek to share existing one-way vehicular streets, for the most part secondary town access routes with local traffic, with cyclists travelling in the same direction as part of the chosen route. TM will make use of existing infrastructure which are, for the most part, well maintained.

1.4.6. Route Type 2.1, Shared Street (Bi-directional)

These portions of the route seek to share existing two-way vehicular streets, for the most part secondary town access routes with local traffic, with cyclists travelling in the same direction of traffic as the motorised vehicles.

1.4.7. Route Type 2.2, Shared Street (Contra flow)

These sections of the route seek to share existing one-way vehicular streets, for the most part secondary town access routes with local traffic, with cyclists travelling in the same direction as well as cyclists travelling against the direction of motorised vehicular traffic as part of the chosen route. Requiring modification of existing infrastructure which are nonetheless, for the most part, well maintained,

1.4.8. Route Type 2.3, Explicit Part of Street Surface

These sections of the route seek to delineate a space for cyclists onto an existing vehicular street which traffic volume or speed may be above that desired and therefore require particular attention. In general sections of this route type are limited, and are designed so as to minimise contra flow. Requiring modification of existing infrastructure which are nonetheless, for in general well maintained.

1.4.9. Route Type 3.0, Rural Pathway

These portions of the route seek to make the rural sections of the route more trafficable, improving accessibility to cyclists and pedestrians. These sections require modification of the existing rural area or rural infrastructure which, in general, is badly maintained.

Relative to the St. Julian’s to Valletta Cycling Route Pilot, the rural pathway consists of a dilapidated rural area in Pieta’ creek forming the foot of the ‘pinetum’, previously the fortification glacis. The intent of this portion of the cycle route is to bypass a particularly narrow portion of the footpath adjacent to the arterial road which alignment is furthermore constrained by the Pieta’ Bocci Club. The inclusion of this portion of the route is in addition understood to serve as a further incentive for the public appropriation of this area and its existing pathways which are currently left abandoned and underutilised.
Relative to the Mosta to University Cycling Route Pilot, the rural pathway is intended to facilitate the shared use of an existing rural road which bridges the south-east area of Mosta with the north-west portion of Lija. A narrow two-way street serving rural traffic, the intention is to limit access to the area, control vehicular speed, and improve the visibility throughout the route, and in so doing allow the route to be more safely trafficked by cyclists staying on the same side of the road as would be expected of motorised vehicles.

1.4.10. Route Type 4.0, Onto Upgraded Area (Extra over additional investment required)

These portions of the route relate to areas where significant infrastructural works are envisaged and where consequently, the cycle route related works are to correspond to an extra-over to the costs relative to the original infrastructural works envisaged, allowing for the shared use of the resulting upgraded area by cyclists as part of the chosen route. Making use of newly completed infrastructures which are in as good condition, yet often navigating relatively complex paths, and also allowing for bi-directional relative to the overall route cost structure.

In the various typologies works along all road intersection include change in colour and texture of the road surface at intersections. The change in texture will warn incoming vehicles of the shared nature of the street and the additional precautions to be taken in joining the traffic whilst serving as an ongoing reminder to vehicles using the street of the speed constrains required of such shared use. Furthermore, the change in colour will change the nature of the street as experienced at a distance and help make these areas recognisable as part of the cycle route pilot.
1.4.11. Route Typology Occurrence

As identified along the two routes, and on the basis of the breakdown described above, the occurrence of the various route types is tabled below:

<table>
<thead>
<tr>
<th>Cycle Route Type</th>
<th>Route Lenght</th>
<th>% of Total Lenght</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Existing Promenade (General)</td>
<td>2,585 m</td>
<td>19.3 %</td>
</tr>
<tr>
<td>1.1 Existing Promenade (Pieta)</td>
<td>644 m</td>
<td>4.8 %</td>
</tr>
<tr>
<td>1.2 Modified Promenade (Gzira)</td>
<td>996 m</td>
<td>7.4 %</td>
</tr>
<tr>
<td>1.3 Modified Promenade (Msida)</td>
<td>295 m</td>
<td>2.2 %</td>
</tr>
<tr>
<td>2.0 Shared Street (Uni-Directional)</td>
<td>5,020 m</td>
<td>37.5 %</td>
</tr>
<tr>
<td>2.1 Shared Street (Bi-Directional)</td>
<td>1,214 m</td>
<td>9.1 %</td>
</tr>
<tr>
<td>2.2 Shared Street (Contraflow)</td>
<td>311 m</td>
<td>2.3 %</td>
</tr>
<tr>
<td>2.3 Explicit Part of Street Surface</td>
<td>1,634 m</td>
<td>12.2 %</td>
</tr>
<tr>
<td>3.0 Rural Pathway</td>
<td>224 m</td>
<td>1.7 %</td>
</tr>
<tr>
<td>4.0 Onto Upgraded Area (Extra-Over)</td>
<td>473 m</td>
<td>3.5 %</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>13,396 m</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

*Route Typology Relative Distance, St. Julian’s to Valletta Cycle Route Pilot*
<table>
<thead>
<tr>
<th>Cycle Route Type</th>
<th>Route Length</th>
<th>% of Total Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Promenade (General)</td>
<td>210 m</td>
<td>2.4 %</td>
</tr>
<tr>
<td>Shared Street (Uni-Directional)</td>
<td>3,531 m</td>
<td>40.3 %</td>
</tr>
<tr>
<td>Shared Street (Bi-Directional)</td>
<td>3,391 m</td>
<td>38.7 %</td>
</tr>
<tr>
<td>Shared Street (Contraflow)</td>
<td>730 m</td>
<td>8.3 %</td>
</tr>
<tr>
<td>Rural Pathway</td>
<td>900 m</td>
<td>10.3 %</td>
</tr>
<tr>
<td>Onto Upgraded Area (Extra-Over)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>8,762 m</td>
<td>100 %</td>
</tr>
</tbody>
</table>

### Route Typology Relative Distance, Mosta to University Cycle Route Pilot

#### 1.4.12. Visual Coherence and Marketing Design Outlook

In order to allow for the easy identification of the two cycle route pilots, as well as stimulate the cultural change required for the general population to embrace the use of cycling as a viable mode of transport, it is being proposed that, in co-ordination with an overlying marketing strategy set out with respect to the SMITHS project as a whole, all visible elements of the cycle routes works would be selected and implemented with the aim to achieve a consistent visual coherence throughout the two routes.

The above works therefore include for such elements as coloured trafficked surfaces, street furniture (such as bins or benches) as well as the cycle route signage and way finding map totems all intended to form part of a recognisable, coherent visual design.

Responding to the requirements set out in the Transport Master Plan 202514, as well as an ongoing concerted design effort to realistically graft the pilot routes within the current behavioural and infrastructural realities of the various localities traversed, this project proposal aims to ably increase local coverage of cycle corridors.

The two identified cycle route pilots where the result of an outlook which recognises that the desired outcome for commuting modality shift and increased local share of transport by bicycle can only be the result of an ongoing effort in education, conscious use of available resources, and a future-oriented outlook embracing the pilot nature of such projects. The proposal is here understood as targeting an outcome beyond the simplistic implementation of infrastructural works, but furthermore, is understood as an essential investment in the future realities of individuals, local communities and the general transport outlook of the country as a whole.
1.5. URBAN SAFE CYCLING ROUTES CONCEPT

As can be clearly seen from the two extensive pilot projects above, by maximizing the potential use of a number of sections of our road network to the fullest, Transport Malta will be reaching a balance between the needs of transport users in a fair manner with the high level of safety features that will put the cyclist mind at rest. These two pilot projects, which will be financed under the current 2014-2020 ERDF Budget, will give Transport Malta the possibility to fully test the concept of Safe Cycling Routes and carry out fine tunings to any short comings that the concept might expose.

The Shared Road Space concept will include a number of features including:

i. Frequent Traffic Calming Measures
ii. Elements of innovative street design and demarcation lines
iii. Use of the latest state of the art intelligent CCTV cameras using Artificial Intelligence technology
iv. Enforcement mechanisms
v. Autonomous data collection infrastructure on street usage
vi. Distinctive Street Furniture

Transport Malta will be closely monitoring the efficiency of the routes through its National Traffic Control Centre currently being developed at its Sa Maison facility, where all traffic and transport ITS-based technologies will be housed and managed.
1.6. IMPLEMENTING A NATIONAL NETWORK OF SAFE CYCLING ROUTES

The Safe Cycling Routes are being sought out in line with Transport Malta’s ITS (Intelligent Transport Systems) National Policy which will pave the way for a sustainable urban transport ecosystem based on the latest state of the art ITS smart technology and future green electric propulsion systems ideal for urban use to provide a high level of safety for all transport users and pedestrians alike on the basis of the Smart City concept.

The two pilot projects shall be monitored after implementation to determine usage levels and user satisfaction vis-a-vis the routes, infrastructure provision and ITS measures. Transport Malta will then be in a position to extend the network nationwide to complete a national network of Safe Cycling Routes.

Through the SMITHS project, Transport Malta will also carry out a full scale study to be carried out at a national level to identify the complete network of the future Safe Cycling Routes. In addition, through this project, Transport Malta will also be commissioning a web-based application which will connect the Safe Cycling Routes with the SMITHS in the form of a real time journey planner.
1.7. SUMP FOR VALLETTA AND THE VALLETTA REGION

Further to the SMITHS Project, Transport Malta is also currently engaged in another innovative project entitled DESTINATIONS, which is being funded under the EU CIVITAS Action Programme. Through this project, Transport Malta is in the process of designing the first ever SUMP (Sustainable Urban Mobility Plan) for the whole of the Valletta Region. Once the SUMP is drawn up, its template can then be adopted for other regions in Malta and Gozo.

Together with the Valletta Local Council and the Ministry for Tourism, Transport Malta will be carrying out a number of pilot projects from the list of measures in the form of projects and policy actions, which will be designed and included in the SUMP. All measures making up the SUMP, once implemented, will be audited to ascertain whether the expected and desired results would have been achieved.

It is expected that a number of these pilot actions will include and address cycling and cycling related infrastructure in various locations across the Valletta Region. On the other hand the implementation of the SMITHS concept based on the introduction of local Sustainable Multi Intermodal Transport Hubs, indicated above, will also be reflected in the SUMP.

The respective cycling infrastructure will include both conventional bicycle-sharing as well as Electric Bicycles Sharing. In addition apart from bicycle sharing, Transport Malta will also include measures such as bicycle racks for bicycle owners who do not need to avail themselves of bicycle sharing services.
1.8. BICYCLE AND BIKE SHARING SERVICES

One of the main components included in the SMITHS concept is the provision of bike and e-bike sharing services. It is envisaged that all of the SMITHS will have e-bike sharing and bike sharing facilities. It is the intention of Transport Malta to make available bicycle and e-bike sharing services across the whole of Malta and Gozo.

1.9. REVISION OF THE LEGAL FRAMEWORK

In parallel to these initiatives, Transport Malta is also reviewing Malta’s Traffic Regulations to promote further the use of cycling, step up enforcement, reduce speed limits in the earmarked Safe Cycling Corridors, regulate contra-flow for cyclists, as well as allow the use of bicycles on promenades. It will also review legislation with respect to the registration of electric powered bicycles and the use of safety helmets.
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