

2020
CIVITAS
Cleaner and better transport in cities

DESTINATIONS



Measure Evaluation Result

MAL 4.1 – Promoting e-bike sharing and car sharing

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|---------------------------|----------------------------------|
| Project Acronym: | DESTINATIONS |
| Full Title: | CIVITAS DESTINATIONS |
| Grant Agreement No.: | 689031 |
| Workpackage: | 9 - Evaluation |
| Responsible Author(s): | Suzanne Maas, Maria Attard (UoM) |
| Responsible Co-Author(s): | |
| Date: | 19/04/2021 |
| Status: | Final |
| Dissemination level: | Public |

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Executive summary

The objective of this measure is to promote (e-)bike and car sharing through an information and awareness campaign which highlights the benefits of using a shared car or bike when compared to the costs, both economic and environmental, of owning a car, as well as cycling safety tips targeting both drivers and cyclists.

The campaign was supported by a study on the cost of owning a car and evidence-based messages to encourage safer cycling conditions. The study was commissioned in order to assess the cost of owning a car (including buying a car, depreciation, maintenance and fuel costs) in Malta and compare said cost with the cost of using shared car services. The results were used to formulate the campaign message. Results of the study on the cost of owning versus sharing a car, based on the Maltese average of 260 hours of commuting by car per year and based on a 10-year period, show that using car sharing is a very competitive option, when compared to owning a private car.

The framework for the evaluation was represented by three waves of cross-sectional surveys, which were used to understand the attitudes and perceptions of the general Maltese population towards shared mobility options, in order to capture any changes as a result of the Information and Awareness campaign. The repeated cross-sectional surveys show mixed results for the awareness and acceptance of bicycle and car-sharing, there is no clear trend. However, when looking at the aggregated datasets across the three survey waves it appears there is a strong positive relationship between younger age groups and awareness about bicycle and car sharing and willingness to use these. A higher education level and being a student or full-time employed are also positively correlated. The majority of respondents to the surveys had not yet seen the Information and Awareness campaign about shared mobility, but a large majority of those who did see the campaign feel the information is sufficient to confidently use the service. Results from the surveys showed that improved road safety and safe infrastructure, investment in cycling skills and road safety education have the potential to encourage respondents to consider using bicycle sharing. More information about financial savings, and time and cost savings because of the use of reserved parking spaces and priority lanes can convince people to use car sharing.

Every promotional opportunity, including radio and TV interviews, was maximized and the information was integrated in national EMW activities in order to increase dissemination reach. The introduction of shared mobility services in Malta is still very recent, and not all segments of society are ready to embrace such forms of transport. Repeated exposure to new information is necessary for people to internalize this. Younger respondents have a more positive attitude towards both bicycle and car sharing, as well those with a higher education level. These findings can be utilized in a more targeted marketing campaign focused on 'early adopters' of shared mobility services.

A Description

This measure consisted of an Information and awareness raising campaign that was launched to promote the services of (e-)bike and car sharing, provided on the islands since 2016/17 and to educate the public on cycling safety. Data collection through desktop research and surveys was carried out in order to measure the success of the campaign.

The campaign messages highlight the virtues of using a shared car or bike when compared to the costs, both economic and environmental, of owning a car, as well as cycling safety tips targeting both drivers and cyclists.

Transport Malta (TM) created the Information and Awareness raising campaign, using inputs provided by a commissioned study on the costs of owning a car, as well as messages to promote cycling safety provided by the University of Malta (UoM). TM subcontracted a market research institute to collect information on the attitudes and perceptions of the general Maltese population towards shared mobility options over three survey waves to capture any changes as a result of the Information and Awareness campaign. UoM, the local evaluation manager, assisted with the drafting of the survey questions, the analysis of the surveys and the interpretation and dissemination of the outcomes.

A1 Objectives and outputs

City policy level objectives

- encouragement of sustainable transport behaviour among tourists and residents
- education of the public on alternative modes of transport
- reduction in traffic congestion and journey delays
- reduction in emissions emanating from road transport and subsequent improvement of air quality

Measure specific objectives

- the launching of the Information and Awareness raising Campaign and Marketing Plan on (e-)bike and car sharing and cycling safety
- a study of the costs of owning a vehicle, to be compared with the use of a shared car and other sustainable modes of transport
- the encouragement of cycling as a viable mode of commuting
- the encouragement of a modal shift from privately owned cars to alternative modes of transport

Outputs

- Study to assess costs of owning a vehicle (used in the communication campaign to compare the costs of travel with other more sustainable options)
- Design and formulation of a marketing plan, based on the message to be disseminated and target audiences
- Information and awareness raising campaign on e-bike and car sharing and cycling safety

Supporting activities

- Repeated survey to understand the general public's perceptions of (e-)bike and car sharing and cycling safety, before, during and after the roll-out of the Information and Awareness Raising Campaign and Marketing Plan.

- Shared mobility services and cycling were explicitly included as topics in the first stakeholder consultation meeting organised for the SUMP process under MAL 2.1.
- TM hosted a staff exchange visit for the Limassol Tourism Board (LTC) and the Municipality of Rethymno (RETH) on the topic of electro-mobility and shared mobility.
- UoM participated in a staff exchange visit hosted by LTC on the topic of bicycle sharing and promotion of cycling.

A2 Inter-relationship with other measures

This measure is strongly linked with MAL2.1 and MAL2.2 as it contributes to the development of the SUMP for the Valletta region and, if successful, go on to reduce transport related emissions and lower congestion problems related to motor vehicle traffic.

The measure is also linked with MAL6.3, as the app is promoting sustainable mobility among tourists and introduces them to (e-)bike and car sharing systems which they can use during their visit on the islands.

A3 Target groups and/or affected part of the city or region

Target groups: residents and tourists. **Areas:** bike sharing stations are found mainly around the Northern Harbour Region (St Julian's, Sliema, Gzira), with e-bike stations installed in Valletta; and car sharing locations found all over the islands, in every Local Council.

A4 Stakeholders: CIVITAS project partners and other important actors

| Stakeholder name | Activities description |
|--|---|
| Valletta 2018 Foundation | Support during the information and awareness campaign |
| Malta Hotels and Restaurants Association | Support during the information and awareness campaign |
| Malta Tourism Authority | Support during the information and awareness campaign |
| Ministry for Transport and Infrastructure | Assistance with marketing particularly with the organisation and hosting of press conferences |
| Ministry for Finance and Investment | Support during the information and awareness campaign |
| Transport Malta: Licensing and Testing Directorate | Support during the information and awareness campaign |
| Transport Malta: PR Unit | Support during the information and awareness campaign |
| E-bike sharing operators | Consultation to formulate the campaign message & timeline |
| Car sharing operators | Consultation to formulate the campaign message & timeline |

Table 1: Stakeholder's involvement

B Measure implementation

B1 Situation before CIVITAS

During the inception period of the CIVITAS DESTINATIONS project, in 2016, Nextbike Malta, a private company, started operating a bicycle sharing system in the North Harbour area with over 50 stations and 400 bicycles. E-bike sharing and car sharing services were not yet being offered on the islands. The idea behind these initiatives was to facilitate and promote the introduction of further shared mobility services through two concession tenders by Government (for e-bike sharing and car sharing) to ensure shared mobility services are available at main transport hubs as well as at strategic locations in order to encourage intermodal transport. Currently, cycling is considered a leisure activity in Malta and very few people consider it as an alternative to the use of the car.

B2 Innovative aspects

Both car sharing and (e-)bike sharing services are new in Malta; they were first introduced in 2018. While residents may have encountered this kind of systems abroad, the majority of the population need to be educated as to how these services work. Hence the Information and Awareness Raising Campaign on (e-)bike and car sharing and cycling safety.

B3 Technology development

Not applicable.

B4 Actual implementation of the measure

Two concession tenders were launched by the Malta Government to introduce e-bike and car sharing services on the island during the course of the project. Malta Public Transport, the national bus operator, introduced e-bikes in Valletta (Tallinja Bikes) in the summer of 2018, with 3 stations (and 2 further stations being planned) and 40 electric bicycles. Private company Car2Go launched their GoTo car sharing scheme in autumn 2018, with a fleet of 150 electric cars, supported by 225 charging pillars and 450 reserved parking spaces across all localities. Since the launch of the car and e-bike sharing services, other shared mobility services have started being offered, such as IoScoot moto-

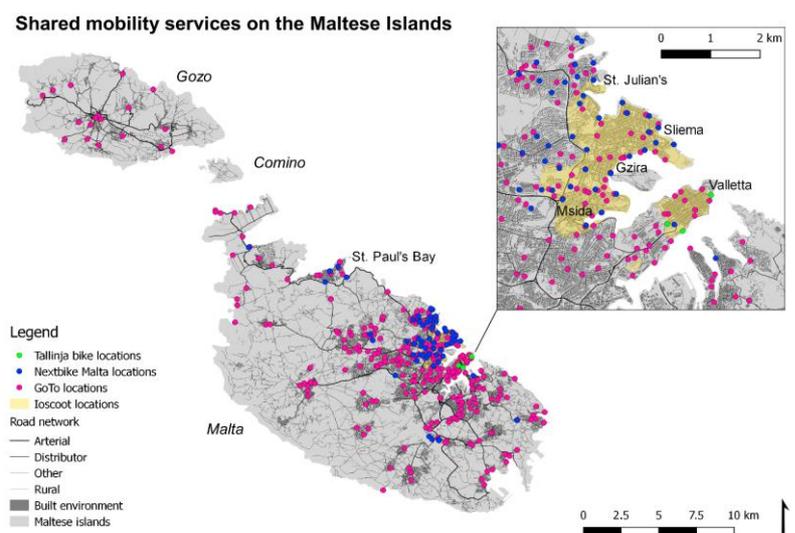


Figure 1: Shared mobility services in Malta (April 2019)

scooter sharing, operational since 2019, as well as other scooter sharing services, such as Whizascoot and GoTo scooters, since late 2019.

With the support of DESTINATIONS, a **marketing plan** was drawn up for the Transport Sharing campaign to promote the use of shared mobility modes, using various media channels, including national television, radio broadcasts, and social media (for example, Figure 2), as well as printed material to be disseminated to the general public.

The Information and Awareness Campaign was launched in November 2018, by means of infographics and informative videos on the topics of (e-)bike sharing, car sharing and cycling safety (as part of the National Cycling Strategy which was launched at the same time) on social media, TV, radio and printed media (links to the videos are provided below):

- [\(e-\)bike sharing](#)
- [car sharing](#)
- [cycling safety](#)



Figure 2: Car sharing explanatory video on social media

The Information and Awareness Campaign was launched in November 2018, by means of infographics and informative videos on the topics of (e-)bike sharing, car sharing and cycling safety (as part of the National Cycling Strategy which was launched at the same time) on social media, TV, radio and printed media (links to the videos are provided below):

The impact of the introduction of shared mobility services in Malta, focused on car and (e-)bicycle-sharing (Figure 3) and the accompanying Information and Awareness Campaign have been evaluated through a series of surveys with a sample representative of the Maltese resident population. Baseline data was collected during August/September 2018, prior to the launch of the campaign in November 2018. Two further surveys were undertaken to understand the changes in acceptance and awareness during and following the campaign: the first survey a few weeks after the launch of the campaign (February 2019) and a final survey just after the most intense weeks of the campaign (April 2019).



Figure 3: Car and bicycle sharing services in Malta

In order to provide input and make the campaign more meaningful, a study was commissioned in order to assess the cost of owning a car in Malta and compare said cost with the cost of using shared services. This study takes into consideration various expenses associated with private car ownership including the initial cost of buying a car, depreciation costs, maintenance costs, fuel, insurance, road license, buying/renting a garage and so on. The results were used to formulate the Campaign Message. This factual information made the campaign more effective as the public will be presented with current information which they can evaluate.

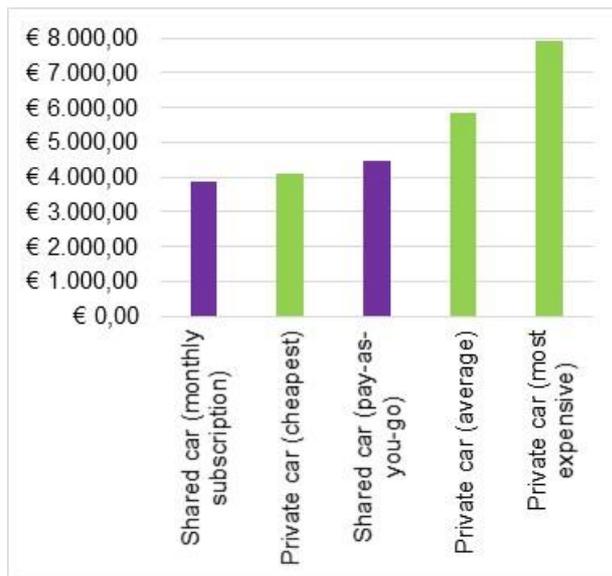


Figure 4: Total yearly cost of private vs. shared car in Malta¹

Results of the study on the cost of owning versus sharing a car was based on the Maltese average of 260 commuting hours by car per year¹. Comparison of costs of different private and shared cars based on the average yearly cost over a 10-year timespan was calculated for:

- different types of private vehicles (small vs. large, new vs. second-hand, and petrol vs. diesel), incl. purchasing costs and depreciation, parking costs, and running costs (fuel, maintenance, licensing, fines, insurance, cleaning).
- pay-as-you-go and monthly subscription of GoTo shared cars, incl. battery charge, insurance, road licence, entrance and parking fees (Figure 4).

Data shared by the operator of the car sharing service, GoTo Malta, shows that the number of active accounts nearly tripled between the start of the service in November 2018 and April 2019, and the use quadrupled over the same period: from 1,045 km/day in November 2018 to 4,101 km/day in April 2019.

An important part of the Information and Awareness Campaign was the marketing campaign on cycling safety (see Figure 5 for some examples of the material) and disseminated during the European Mobility Week 2019, which focused on active transport (walking and cycling).



Figure 5: Marketing material developed to promote cycling safety

¹ von Brockdorff, P. & Camilleri, C., 2017. Study on Cost of Owning a Vehicle. Study commissioned as part of the Horizon 2020 Civitas Destinations Project. Malta University Consulting Ltd, University of Malta, Malta.

C Impact evaluation

C1 Evaluation approach

Expected impacts and indicators

| Impact category | Impact indicator | Unit of measure |
|-----------------|--|-----------------|
| Society | 1 - Awareness level about bicycle and car-sharing | % |
| Society | 2 - Acceptance level towards using a bicycle and car-sharing service | % |

Table 2: Expected impact and indicators

Method of measurement

| Impact indicator | Method * | Frequency | | | Target Group | Domain (demonstration area or city) |
|---|----------|-----------|------|------|--------------|-------------------------------------|
| | | Bef. | Dur. | Aft. | | |
| 1- Awareness level about bicycle and car-sharing | S | 23 | 29 | 32 | residents | Maltese Islands |
| 2- Acceptance level towards using a bicycle and car-sharing service | S | 23 | 29 | 32 | residents | Maltese Islands |

* (Data collection (DC), Estimation (E), Survey (S))

Table 3: Method of measurement

Detailed description of the indicator methodologies:

- 1 - Awareness level about bicycle and car-sharing:** Data collected by Transport Malta sub-contracted market research institute with representative samples of the general Maltese population over three waves. A repeated cross-sectional telephone survey was conducted in three waves (wave 1: July 2018, n=362; wave 2: January 2019, n=369; wave 3: April 2019, n=372) to understand people's awareness (correct definition) of bike- and car sharing, as well as their perception of cycling safety. The samples are representative of the general population in terms of age, gender and living district (95% confidence level, 5% error margin). The different waves surveyed different people, in an attempt to capture changes in the awareness of the new shared mobility services and the effects of an information campaign run in late 2018/19. The awareness level was defined as being able to correctly define bicycle and car-sharing in an open-ended question: "What do you understand by bike sharing?" and "What do you understand by car sharing services?". Answers were classified in three main categories: "Don't know", "A type of bicycle/car rental for a short period of time" (the correct answer) and "Other" (answers such as "driving your car with others (car-pooling)" or "contributing towards the expenses of the family bicycle (shared ownership of a bicycle)").
- 2 - Acceptance level towards using a bicycle and car-sharing service:** Data collected by Transport Malta sub-contracted market research institute with representative samples of the general Maltese population over three waves. A repeated cross-sectional telephone

survey was conducted in three waves (wave 1: July 2018, n=362; wave 2: January 2019, n=369; wave 3: April 2019, n=372) to understand people's and acceptance (willingness to use) of bike- and car sharing, as well as their perception of cycling safety. The samples are representative of the general population in terms of age, gender and living district (95% confidence level, 5% error margin). The different waves surveyed different people, in an attempt to capture changes in the acceptance of the new shared mobility services and the effects of an information campaign run in late 2018/19.

The acceptance level was defined as the willingness to use sharing services in a yes/no question, after having been explained exactly what bicycle and car-sharing services are: "Would you consider making use of bike sharing facilities?" and "Would you consider making use of car sharing services?"

The Business-as-Usual scenario

Considering the type of indicators, and based on survey results on the awareness and acceptance of shared mobility services being new to the islands, carrying out a quantitative BAU analysis was not possible. However, while one sharing service (bicycle sharing by Nextbike) had been introduced before the start of this measure, two other services were made possible through the concession tenders which Government initiated during the course of the project (both car and e-bike sharing). Indeed, shared mobility in general has been at the centre of recent campaigns to promote sustainable mobility. These efforts have certainly contributed to the success in the uptake of shared mobility services.

C2 Measure result

| Impact category | Impact indicator | Unit of measure | Baseline (wave 1) | Ex-Ante targets | Ex-post (wave 2) | Ex-post (wave 3) |
|-----------------|--|-----------------|---|-----------------|---|---|
| Society | 1- Awareness level about bicycle and car-sharing | % | Bike sharing: 19% Car sharing: 32% | 10% | Bike sharing: 36% Car sharing: 49% | Bike sharing: 17% Car sharing: 20% |
| Society | 2-Acceptance level towards using a bicycle and car-sharing service | % | Bike sharing: 19% Car sharing: 45% | 10% | Bike sharing: 8% Car sharing: 22% | Bike sharing: 12% Car sharing: 16% |

Table 4: Measure results

C2.1 Society

1 and 2 - Awareness and acceptance level with bicycle and car-sharing service

The repeated cross-sectional surveys show mixed results for the awareness about bicycle sharing, as shown in Figure 6(a). The increase in awareness (as depicted by the blue bars representing the correct answer, 'bicycle rental for a short period of time') between wave 1 and wave 2 can be potentially explained by the exposure to the awareness and information campaign, as 15% of all respondents indicated to have seen the campaign. However, wave 3 does not continue this trend. On the contrary, wave 3 represents the highest percentage of respondents indicating they do not know what bicycle sharing is (depicted by the orange bars, 'don't know'). There is also no clear trend with regard to the willingness to consider using bicycle sharing, with 19.3% replying positively in wave 1, 8.4% of respondents expressing interest in wave 2, and 11.6% of respondents considering using bicycle sharing in wave 3.

The survey results also show a mixed picture about respondents' awareness about car sharing: whereas during wave 1, 32% of respondents were able to correctly define car sharing (as 'car rental for a short period of time', depicted in blue bars), this figure increased to 48% during wave 2, but then decreased to only 20% in wave 3, as shown in Figure 6(b). The car sharing service is still a very recent introduction: during wave 1 the service had just been announced in the media but was not yet operational. During wave 2 of the survey the service had been in operation for just a couple of months, and was still being rolled out, which may explain why none of the respondents had as of yet used the service. A few months later however, the results from wave 3 however show that 18% of respondents had used a car sharing service, either locally or abroad. Despite this, overall the willingness to consider using car sharing decreased between the three survey waves, from 45% of respondents in wave 1, to 22% in wave 2, to 16% in wave 3.

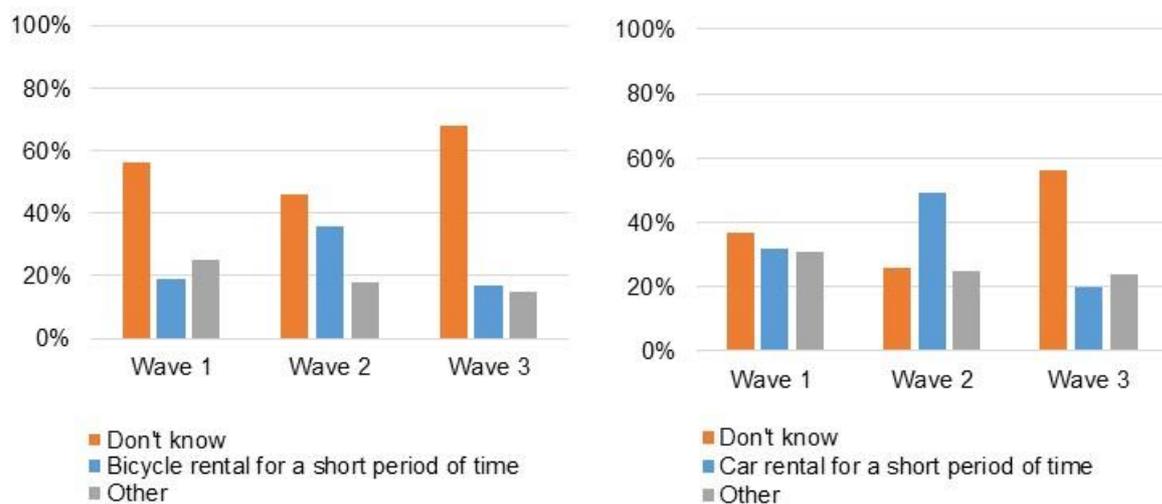


Figure 6. (a) Definition of bicycle sharing; **(b)** Definition of car sharing; answers from survey wave 1 (n=362), wave 2 (n=369) and wave 3 (n=372)

Figure 7 shows the results of the impact of the awareness and information campaign for Transport Sharing. Whereas the majority of respondents indicated not to have seen the ongoing information campaign about bicycle sharing, and car sharing, a large majority of those who had seen the campaigns feel the information was sufficient to confidently use the service. These results indicate that while the reach and penetration of the campaign may not have (yet) reached its full potential, those who had seen the campaign were generally well informed with the information provided.

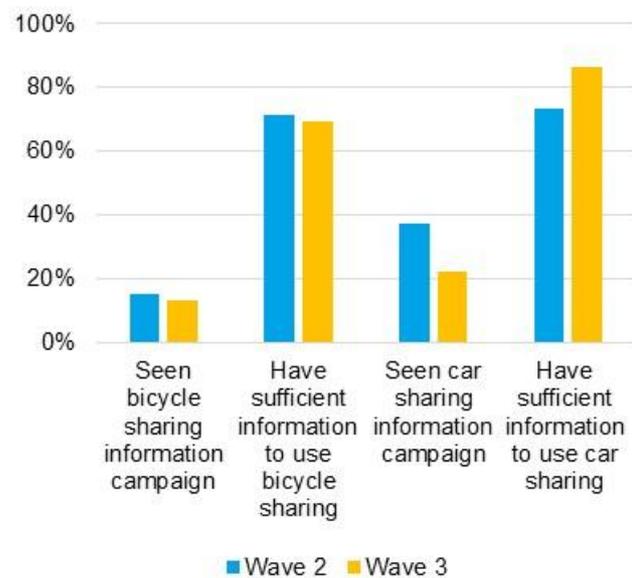


Figure 7. Awareness of shared mobility campaigns

The repeated cross-sectional surveys do not show a clear trend for the awareness about bicycle and car sharing: the figures first increase but then decrease. Respondents' willingness to consider using bicycle and car sharing decreases over the successive surveys. However, when looking at the results of the three survey waves together (Figure 8), there was still a substantial part of the respondents that were aware of the sharing services (34% can give the correct definition for car-sharing and 24% for bicycle sharing) and also showed willingness to use these services themselves (28% consider using car-sharing and 13% using bicycle sharing).

Increased safety for cyclists' is the main factor that would encourage respondents to consider using bicycle sharing. The importance of road safety and the provision of safe infrastructure is also shown by the responses to the two statements, presented in Figures 9 and 10.

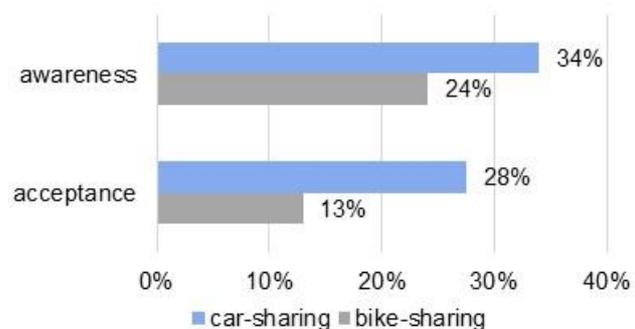


Figure 8. Awareness and acceptance of shared mobility

When looking at the aggregated datasets (from the three waves, n=1103) it appears there is a strong positive relationship between younger age groups (18-24; 25-34; 35-44) and awareness about bicycle and car sharing and willingness to use these. A higher education level and being a student or full-time employed are also positively correlated.

The main reasons for considering using bicycle sharing were 'less traffic', 'for exercise' and 'less pollution', whereas for car sharing they were 'convenience' and 'time savings'. Respondents were less convinced about the prospects of 'money savings' from car sharing. The main reasons given for not considering using bicycle sharing is 'not knowing how to ride a bicycle' and 'family commitments'. The main reasons for not using car sharing were 'prefer to use private car' and 'do not drive'. The main factor that would encourage respondents to use bicycle sharing was

‘increased safety for cyclists’. Factors that would encourage car sharing were ‘priority lanes and reserved parking’, ‘free use of service’, and ‘financial savings’.

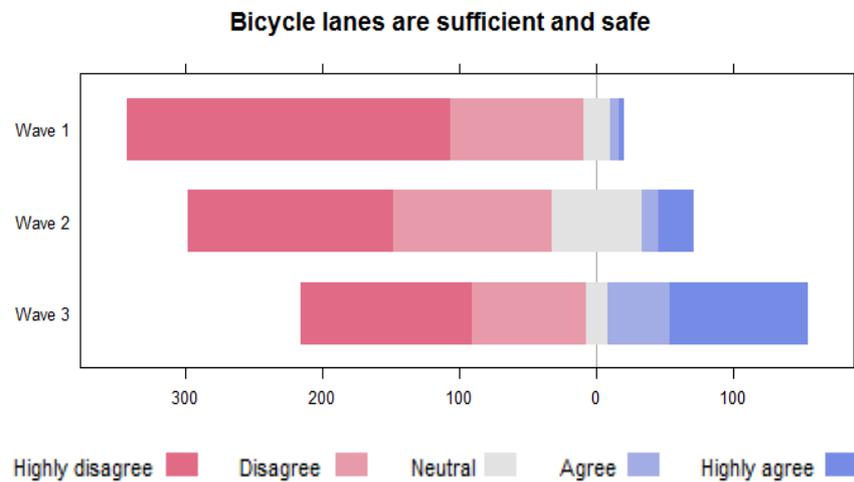


Figure 9: Responses to “Bicycle lanes are sufficient and safe”.

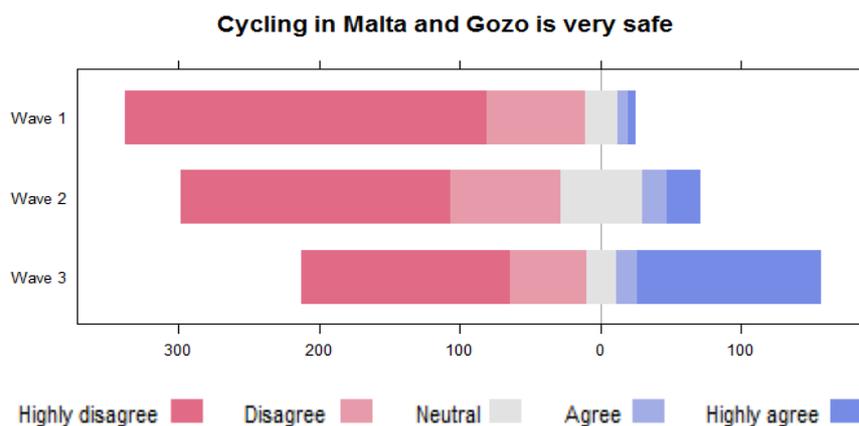


Figure 10: Responses to “Cycling in Malta and Gozo is very safe”

All three samples (wave 1, n=362; wave 2, n=369; wave 3, n=372) are representative of the wider population, the Maltese general public, in terms of gender and age groups, with a 95% level of confidence. To understand what could explain the observed differences between the survey waves, the representativeness and consistency of the other socio-demographic characteristics was assessed. A significant difference (at a 95% confidence level) is observed between the three waves for both variables, ‘employment status’ and ‘highest education level’, which is indicative of the samples not being random and may explain part of the variation in responses between the survey waves.

Furthermore, a stratified random sampling strategy was employed to ensure the sample included people from all districts of the Maltese islands, both Malta and Gozo. However, since the shared mobility services (particularly the bicycle sharing system) are concentrated and focused on a few centrally located towns, a large share of the respondents does not necessarily live or work within the catchment area of the shared mobility services, and using bicycle or car-sharing would thus not make much sense to them.

While every promotional opportunity, including radio and TV interviews, was maximized and the information was integrated in national EMW activities in order to increase dissemination reach, the impact on awareness and acceptance is not measurable yet. The introduction of shared mobility services in Malta is still very recent, and not all segments of society are ready to embrace such forms of transport. Repeated exposure to new information is necessary for people to internalize this. However, when looking at the aggregated dataset, merging the responses from the three waves, it becomes clear how younger respondents have a more positive attitude towards both bicycle and car sharing, as well as the higher the education level of the respondent, the more positive the attitude to shared mobility services. The findings are in line with results from the literature on car and bicycle sharing users in other cities² and can be utilized in a more targeted marketing campaign focused on ‘early adopters’.

C3 Quantifiable targets

| No | Target | Rating |
|--|---|--------|
| 1 | Less CO ₂ emissions 587.86 kg CO ₂ e/a | NA |
| 2 | Improved air quality levels, with an annual average reduction of PM emissions by 0.0025 tonnes and NO _x emissions by 0.58 tonnes | NA |
| 3 | Improved satisfaction of the users (520 travellers) | NA |
| 4 | *10% awareness level about bicycle and car-sharing | *** |
| 5 | *10% acceptance level about bicycle and car-sharing | ** |
| NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%) ** = Achieved in full *** = Exceeded | | |

* New Targets, not in GA

Table 5: Assessment of quantifiable targets

The original GA targets, Targets 1,2 and 3, were not assessed as it was not feasible to evaluate. It was not deemed realistic to measure actual change in CO₂ emissions, PM levels and NO_x emissions based on a communication and information campaign. The survey results do provide evidence of willingness to use shared services and, depending on the previous mode used for these trips, there is potential reduction of CO₂ emissions, PM levels and NO_x emissions, if private ICE vehicle trips are replaced by an (e-)bicycle ride or electric vehicle. However, as these are still very new services, the number of respondents that have used shared mobility services, captured through the stratified random sampling strategy, was too small to draw robust conclusions. The survey focused more on the awareness and acceptance of these new shared mobility services and people’s exposure to the information campaign, as well as factors that

² Martin, E.W., & Shaheen, S.A. (2011). Greenhouse gas emission impacts of carsharing in North America. IEEE transactions on Intelligent Transportation Systems, 12(4), 1074-1086; Fishman, E., Washington, S., Haworth, N., Watson, A. (2015). Factors influencing bike share membership: an analysis of Melbourne and Brisbane. Transportation Research Part A: Policy and Practice, 71, 17-30.

encourage or discourage them from using such services; information that was relevant and useful at this stage of the introduction and promotion of shared mobility services. The indicator 'satisfaction' was replaced with the indicators 'awareness' and 'acceptance' as these were more relevant indicators at this stage of the introduction and promotion of shared mobility services.

When looking at the results of the three survey waves together, a substantial part of the respondents that is aware of the sharing services (34% of car-sharing and 24% of bicycle sharing) and also accepting of such services (28% consider using car-sharing and 13% using bicycle sharing). These figures show the target of 10% Awareness and Acceptance level have exceeded the ex-ante target in the case of Awareness, and are achieved in full in the case of Acceptance.

C4 Up-scaling of results

Not applicable.

D Process Evaluation Findings

D1 Drivers

At the **institutional and technological level**, since the introduction of the first bicycle sharing service in 2016, shared mobility services in Malta have taken flight, with the introduction of a nationwide car sharing service, an e-bike sharing service in Valletta, as well as several (moto) scooter sharing services and different ride-sharing, ride-pooling and car-pooling providers. There has been very good cooperation with the various transport sharing operators; and data provided by the car sharing operator shows an increase in uptake of the service.

At the **political level**, Transport Malta has put forward a draft National Cycling Strategy and regulations for the use of micro-mobility to regulate the use of such personal mobility devices. Although both documents state to aim to promote these modes of transport, there has also been criticism from organizations and individuals that these are not ambitious enough.

At the **organizational level**, there has been good collaboration between TM and UoM, through regular meetings and emails, to follow-up on progress on the implementation of the measures and the evaluation of the impact.

D2 Barriers

While it appears that the information and awareness campaign has had some success in communicating the idea behind bicycle sharing, and a larger percentage of respondents has used shared bicycles, this does not automatically translate into an increased willingness to use the service. Results from the three waves of surveys show that the predominant barrier for taking up the use of bicycle sharing is respondents' concerns about road safety, which negatively affects their willingness to consider the use of bicycles. The general lack of cycling lanes and a connected and safe cycling infrastructure network in Malta is a **planning** barrier preventing the further uptake and spread of cycling as a mode of transport.

While the car-sharing system has been implemented nationwide, both bicycle sharing systems are only available in part of the country, forming a **spatial** barrier. A large share of residents of the Maltese Islands do not necessarily live or work within the catchment area of the bicycle sharing system. However, the areas where the bicycle sharing system is implemented do coincide with the primary areas for tourist accommodation, as well as localities popular with foreign residents.

The high level of private car ownership is a **cultural** barrier that makes it difficult to discuss and propose measures that would truly promote modal shift. It is not only important that there are viable transport alternatives available, as being provided by the new shared mobility services, but also that there are restrictions on private car use, both in physical terms (e.g. access or parking restrictions) and financial terms (e.g. increased parking fees, congestion charges).

A relatively high percentage of respondents to the survey indicated not to know how to cycle (between 34-49% of respondents in the different waves of the survey). This **cultural** barrier can be addressed via cycling promotion and education from a young age, through bicycle training and cycling lessons and the creation of safe routes to school, as well as through cycling lessons for all ages, such as being offered by Nextbike Malta through their free Bikeability course³.

D3 Lessons Learned

Shared mobility is still a very new concept in the Maltese Islands and the majority of residents are not aware of such services and/or would not consider using them. Results from the three waves of surveys show that the predominant barrier for taking up the use of bicycle sharing is respondents' concerns about road safety, which negatively affects their willingness to consider the use of bicycles. To promote car sharing, further marketing may be necessary to explain and communicate the true costs of owning and driving a private car versus using a shared car, especially at key moments when people decide to purchase a car, e.g. when coming of age or following lifestyle changes.

The reach and penetration of the information and awareness campaign may not have (yet) reached its full potential, with only 13-15% of the sample having noticed the awareness campaign about bicycle sharing, and between 22-37% about car sharing, but those who have seen the campaign are generally well informed by the information provided, as indicated by a large majority (ranging from 70-85% of respondents who had seen the campaign).

E Evaluation conclusions

A positive impact of the information campaign could not yet be measured through the successive surveys. Analysis across the three survey waves shows that younger, highly educated and full-time employed and students are main groups to target.

Improved road safety and safe infrastructure, investment in cycling skills and road safety education have the potential to encourage respondents to consider using bicycle sharing.

More information about financial savings, and time and cost savings because of the use of reserved parking spaces and priority lanes can convince people to use car sharing.

³ <https://www.nextbike.com.mt/en/malta/bikeability/>

In order to truly promote modal shift, it is not only important to make viable alternatives available, such as shared mobility services, but also that restrictions are introduced on private car use, both in physical terms (e.g. access or parking restrictions) and financial terms (e.g. increased parking fees, congestion charges).

F Additional information

F1 Appraisal of evaluation approach

While telephone surveys are a quick and cost-effective way to conduct surveys across a country's population, there are also some limitations associated with using fixed telephone number only. Although the survey samples are representative of the population in terms of age groups, there is still a risk that the more technology-savvy younger generations (those who rely on mobile phones rather than fixed telephony), and especially the increasing number of foreign (temporary) workers in the IT sector, both key target groups of shared mobility services, are underrepresented in the samples. Using a mobile phone registry could have ensured a more varied population to sample from. In addition, because of the geographic limitations of the bicycle sharing system, focused on a few centrally located localities, a large share of the respondents does not necessarily live or work within the catchment area of the bicycle sharing system, as the survey sample is from all over Malta and Gozo. Future research and marketing campaigns could focus more specifically on target groups expected to take up shared mobility services, based on characteristics such as age and locality of residence.

F2 Future activities relating to the measure

A lot of promotional and campaigning material has been developed in this measure, which can be easily adapted or put to use again to reinforce the messages to promote shared mobility and safer conditions for cycling, for example during the annual European Mobility Week and mobility related events.