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Report for the Provision of a Scheduled Passenger Fast Ferry Service from Marsascala to Valletta

Transport Malta

September 2025

Project Background

Scope of works

The Ministry for Transport, Infrastructure and Public Works (MTIP) has delegated Transport Malta (TM) to expand domestic maritime transport services and introduce additional passenger (only) ferry services to enhance intra-island and inter-island connectivity and promote modal shift.

The study will assess:

- Feasibility of the project
- Operational requirement
- Financial viability of proposed routes
- Market demand for the project
- Assess traffic reduction and other potential economic benefits

The findings and recommendations of this Project are intended to assist the Authority in formulating the technical and operational parameters, service levels and economic model for the provision of the most cost effective, reliable, competitive, and efficient schedule passenger ferry service when issuing the Tender.

Objectives of the Project:

1. Expand domestic maritime transport services by providing robust infrastructure
2. Enhance intra-island and inter-island connectivity
3. Promote the modal shift to alternative means of public transportation
4. Reduce road congestion
5. Lower emissions

The Modal Shift

A modal shift is defined, for the purposes of this study, as the transition from private vehicle usage to ferry transport, contributing to reduced road congestion and lower emissions.

Project background

Malta's transport infrastructure, relevant to this Project includes both road infrastructure and port infrastructure.

Road infrastructure

Private cars are the primary use of transport for daily travelling, complemented by buses.

Malta has one of the highest rates of car ownership in the EU with the total number of licensed motor vehicles in Malta reaching 445,711 cars, for a population of 542,0511 persons.

This results in a vehicle-to-population ratio of approximately 822 vehicles per 1,000 people. Passenger cars continue to dominate the vehicle stock, making up 74.1% of the total, amounting to 330,005 vehicles.

The European Commission's Joint Research Centre is currently working on measuring congestion across the Union and preliminary results for Malta estimated the average number of seconds of delay per km at 16.93 seconds (23.94 seconds for the two regions with the heaviest concentration of traffic) whereas the European average was 5.74 seconds in 2012.

Malta

16.93 seconds,

23.94 seconds

(Northern and Southern Harbour)

Europe Average

5.74 seconds

Source: INSTITUTE FOR CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

It should be stressed that Malta is largely an urban area with its Northern Harbour and Southern Harbour regions characterized by heavy traffic. To this end, marine-based transport for passengers is a largely underutilised mode of transport.

Project background

Port infrastructure

Gozo Channel Ferry: This ferry operates from Ċirkewwa in Malta to Mġarr in Gozo. The journey takes about 20-25 minutes and runs frequently throughout the day, up to 74 times daily. Commuters have the option to drive to Cirkewwa with their vehicle, park at Cirkewwa and board as a foot passenger or catch the bus to Cirkewwa and board as a foot passenger.

The Gozo Channel fleet includes three vessels:

- M.V. Ta' Pinu (delivered in March 2000)
- M.V. Gaudos (delivered in February 2001)
- M.V. Malita (delivered in March 2002)
- M.V. Nikolaos (delivered in June 2019)

Gozo Fast Ferry: Gozo Highspeed Limited operates a fast ferry service between Valletta (Malta) and Mġarr (Gozo). This service is designed to provide a quick and efficient connection for foot passengers, making it a popular choice for both locals and tourists. The trip takes around 45 minutes.

Project background

Port infrastructure

Regular ferry services operate between Sliema (The Strand) and Marsamxett harbour in Valletta. The port of Valletta, hosts other ferry services that operate between the Grand Harbour and the Three Cities.

Both ferry services are provided by a private operator, through a concession contract with Transport Malta. These services are provided with two new purpose-built ferry vessels, each with a capacity of 120 passengers. The average frequency is 30 minutes, and each trip takes approximately 15 minutes. The schedule operates from early morning to late evening, with extended hours during the summer.

Holders of a valid personalised Tallinja Card can use the Valletta Ferry Services for free. When traveling from Cospicua to Valletta, a ticket for the Upper Barrakka Lift is included, offering a convenient way to reach the centre of Valletta. Both ferry services provide a quick and scenic way to travel, avoiding traffic and offering beautiful views of the harbours.

Proposed route

The proposed route will depart from Marsascala and arrive at Valletta Grand Harbour. Since the ferry will dock at the Valletta Grand Harbour (i.e. where the Gozo High Speed operates), it also facilitates passengers travelling from Marsascala to continue their journey to Gozo.

It is expected that the proposed route will allow residents and tourists living in Marsascala as well as in the neighbouring areas including Hal Ghaxaq, Marsaxlokk and Zabbar to travel more efficiently.

This route includes a hybrid of the two existing services:

1. A ferry service from (1) **Marsascala to** (2) **Valletta** which mirrors the ferry transport service provided from Valletta to Cospicua, Valletta to Sliema and Sliema to Bugibba. The Government is committed to mirror the pricing structure by providing the connecting route for free for Tallinja card users.
2. Provided that the journey is seamless and the ferry schedule ensures uninterrupted connectivity, possible continuation from (2) **Valletta to** (3) **Mgarr** via the existing fast ferry could be explored.

Project identification

Project specifications

The High-Speed craft required shall produce zero operational emission. Some of the crucial minimum specifications of each environmentally friendly vessel to be deployed as part of this Project are outlined below:

The Fast Ferry shall be designed to carry up to two hundred (200) passengers and shall be suitable for the scheduled Fast Ferry services on the defined routes.

90

Fast Ferry will be operated in open seas and must therefore have a long-range notation of up to 90 miles in order for the said ferry to be suitable to provide the Fast Ferry Services during the winter months and the summer months in accordance with the terms of this Agreement.

Small water-plane area vessels (SWATH) may be the most suitable type of vessel for the Fast Ferry Services.

The Fast Ferry shall be suitable for the jetties in Bugibba, Sliema and Mgarr, as described in the Port Facilities Agreement.

The Fast Ferry shall be fitted with propulsion systems that provide for a high degree of manoeuvrability appropriate for safe manoeuvring, operating, berthing and un-berthing the Fast Ferry and achieving the minimum contracted service levels. This will necessitate that the Fast Ferry can be operated during various adverse weather and sea conditions along sea routes.

The machinery and the propulsion plant shall be designed with due regard to fuel economy, reliability and dependable operation for the specified routes.

30

The Fast Ferry route distance is seventeen (17) nautical miles. Accordingly, the Vessel used should have a minimum service speed of 20 knots to be able to do the trip in not more than 30 minutes taking in consideration the time taken to leave and enter ports.

The **Marsascala to Valletta** route will mirror the same pricing mechanism of the Valletta to Sliema/3 Cities ferry, as well as the calculation of the Sliema to Bugibba route (see our previous preliminary report) thereby allowing for the use of the Tallinja card. For passengers who do not own a Tallinja card, the current standard rates of **€3.80 for Adults and €1.50 for Children will apply.**

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Proposed schedule with two operating vessels

	+15mins	+20mins	+15mins	+20mins
	Departure Marsascala	Arrival Valletta	Departure Valletta	Arrival Marsascala
	06:40	07:00	07:15	07:35
	07:40	08:00	08:15	08:35
	08:40	09:00	09:15	09:35
	09:40	10:00	10:15	10:35
	10:40	11:00	11:15	11:35
	11:40	12:00	12:15	12:35
	12:40	13:00	13:15	13:35
	13:40	14:00	14:15	14:35
	14:40	15:00	15:15	15:35
	15:40	16:00	16:15	16:35
	16:40	17:00	17:15	17:35
	17:40	18:00	18:15	18:35
	18:40	19:00	19:15	19:35
	19:40	20:00	20:15	20:35
	20:40	21:00	21:15	21:35
	22:10	22:30	22:45	23:05
	23:10	23:30	23:45	00:05
	00:25	00:45	01:00	01:20

The schedule reflects the proposed service configuration under the scenario where the Marsascala–Valletta route is operated using two vessels. This arrangement is expected to enhance service frequency and improve overall connectivity across the network. In particular, it facilitates smoother integration with the existing Fast Ferry Service between Gozo and Valletta, offering passengers more flexible and efficient travel options.

Demand analysis

Demand analysis Marsascala – Valletta – (Gozo)

2024 figures

Total individual passengers travelling to Gozo:

Gozo Channel (incl. vehicle passengers)	Gozo Highspeed Craft
5.9 million individual passengers	978k individual passengers

Total **passenger trips** in 2024 = **13.75 million**

9.95 million

Passenger trips by **vehicle passengers**

(out of scope of the proposed services based on the premise that Gozo Channel holds a monopoly over vehicle passengers)

3.79 million

Passenger trips by **foot passengers**

Gozo Channel	Gozo Highspeed Craft
1.83 million foot passenger trips	1.96 million foot passenger trips

Demand analysis Marsascala – Valletta – (Gozo)

2024 figures

Total **foot passenger trips to Gozo** in 2024 = **3.79 million**

Gozitans

28% of total foot passenger trips

Source: Gozo Channel and Fast Ferry ticket sales

Maltese

43% of total foot passenger trips

Source: GT Analysis

Tourists

30% of total foot passenger trips

Source: % of tourists using Tallinja - TVM

Demand for Gozo to be split across the Marsascala, Valletta and Cirkewwa ports on the basis of **total travel time to Gozo using public transport** (incl. bus and ferry travel from individuals' residence to Mgarr, waiting times & onboarding) and the assumption that the individual users act **rationally, and buses and ferry transportation are perfect substitutes.**

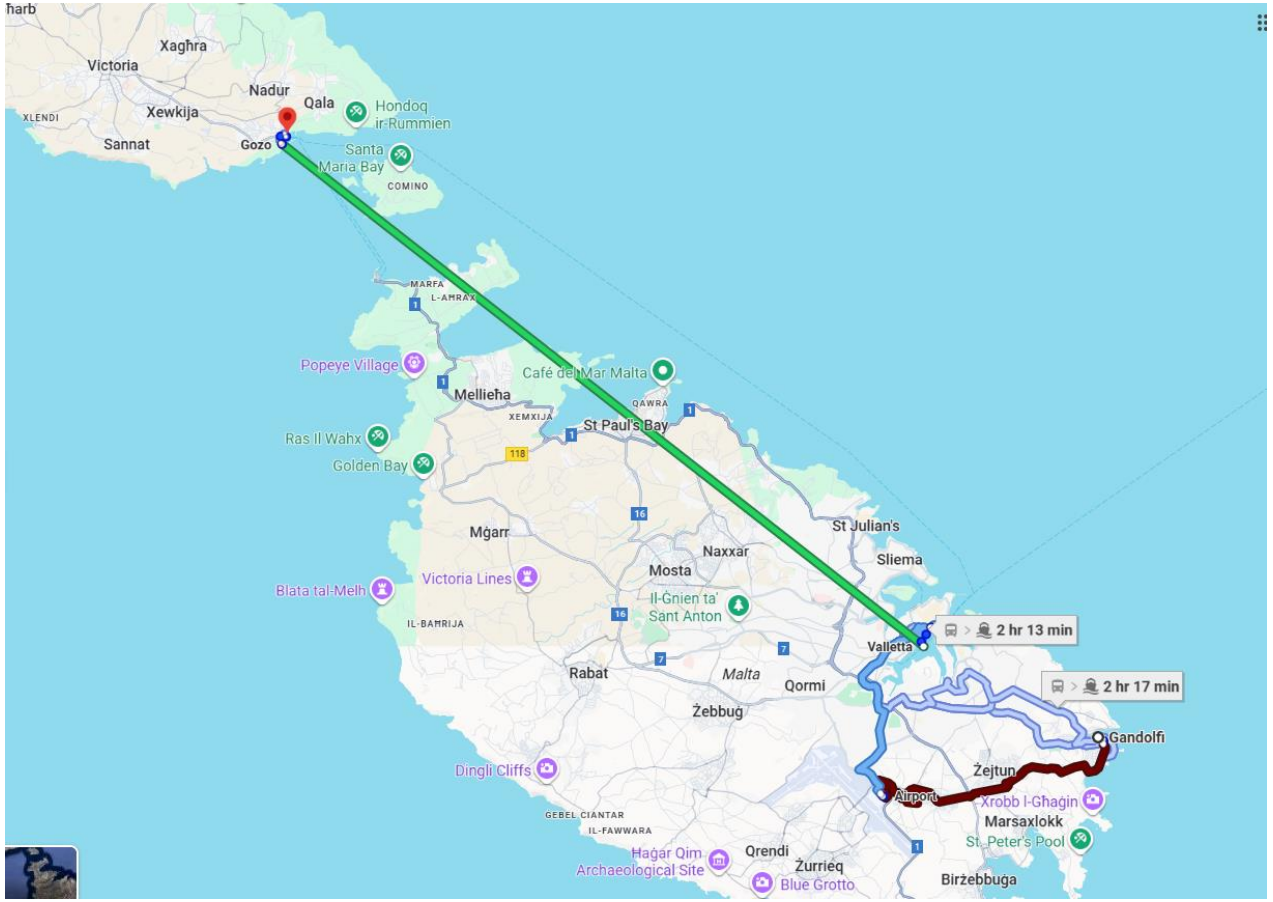
Demand analysis Marsascala – Valletta – (Gozo)

Given that travel between the islands of Malta and Gozo necessitates the use of a ferry, all individuals—whether tourists, Maltese residents, or Gozitans—must utilise ferry services regardless of their reason for travel.

Accordingly, the demand from residents in Malta and tourists is estimated based on the total number of foot passengers who purchased standard tickets, with allocation to each port determined by which option **minimises overall travel time**.

In contrast, the demand from Gozitans is estimated based on the number of tickets sold to Gozitan travellers by Gozo Channel and Gozo Highspeed.

This figure, which amounts to 28% of total foot passenger trips, is then distributed across the respective ports based on the location of workplaces in Malta, with each Gozitan commuter assigned to the port that offers the most time-efficient route to their place of employment.



Demand analysis Marsascala – Valletta – (Gozo)

Optimal travel based on least time travelled

We conducted an assessment to identify the most suitable port for passengers intending to travel to Gozo. This involved calculating both the distance and travel time from the centre of each locality to the existing ports—namely, the Ċirkewwa Terminal and the Valletta Fast Ferry terminal—as well as to Marsascala. Based on this analysis, Marsascala emerges as a viable alternative for the following localities.

Demand for Gozo

Regions	Closest port
South Eastern	
IŻ-ŻEJTUN	Other
BIRŻEBBUĠA	Marsascala
IL-GUDJA	Other
ĦAL GĦAXAQ	Marsascala
ĦAL KIRKOP	Other
MARSASKALA	Marsascala
MARSAXLOKK	Marsascala
L-IMQABBA	Other
IL-QRENDI	Other
ĦAL SAFI	Other
IŻ-ŻURRIEQ	Other

Demand for Gozo

Regions	Closest port
Southern Harbour	
VALLETTA	Other
IL-BIRGU	Other
L-ISLA	Other
BORMLA	Other
ĦAŻ-ŻABBAR	Marsascala
IL-FGURA	Other
IL-FURJANA	Other
IL-KALKARA	Other
ĦAL LUQA	Other
IL-MARSA	Other
RAĦAL ĠDID	Other
SANTA LUĊIJA	Other
ĦAL TARXIEN	Other
IX-XGĦAJRA	Other

Demand analysis Marsascala – Valletta – (Gozo)

Optimal travel based on least time travelled

To estimate the demand for travel to Gozo among Maltese residents, we analysed ticketing data from the Gozo Channel and Fast Ferry systems to calculate the average number of pedestrian trips (i.e on foot passengers) per resident.

Following this, we identified which would be the preferred site based on proximity to the port and least time travelled. Subsequently, we calculated the total demand for those localities where Marsascala emerged as the most favourable option.

532,997 Total Maltese population (excl. Gozitans)

1,611,364 Maltese trips to Gozo: 43% of total trips to Gozo on foot (see slide 9-10)

3.02 Average trips on foot per local

A comparable analysis was undertaken to estimate the demand for travel to Gozo among tourists. Using the Hotel Directory 2025 published by the Malta Tourism Authority, we identified the number and distribution of tourist accommodations across localities in Malta. As illustrated in the graphic below, the percentage of tourists visiting Gozo was calculated by dividing the total number of inbound tourists by those recorded as visiting Gozo and Comino, based on data published by the National Statistics Office (NSO). Subsequently, we assessed the preferred port location for each locality by evaluating proximity and travel time, and calculated the total potential demand for the Marsascala–Valletta ferry service from the tourist population

3,563,618 Total inbound tourists in Malta

2,033,833 Tourists visiting Gozo and Comino

1.14 % of tourists visiting Gozo accounting for round trip

Demand analysis Marsascala – Valletta – (Gozo)

	2024		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Gozo population													
Forecasted population growth	2.09%												
Marsascala	117,264		36,648	50,299	69,035	94,751	130,046	132,764	135,540	138,374	141,267	144,220	147,235
Total demand from Gozo population		-	**36,648**	**50,299**	**69,035**	**94,751**	**130,046**	**132,764**	**135,540**	**138,374**	**141,267**	**144,220**	**147,235**
Maltese population													
Forecasted population growth	1.11%												
Marsascala	179,540		55,571	76,272	104,684	143,680	197,202	199,392	201,606	203,845	206,108	208,397	210,711
Total demand from Maltese population		-	**55,571**	**76,272**	**104,684**	**143,680**	**197,202**	**199,392**	**201,606**	**203,845**	**206,108**	**208,397**	**210,711**
Tourist population													
Forecasted tourist population growth	2.14%												
Marsascala	20,882		6,529	8,966	12,312	16,907	23,217	23,715	24,223	24,742	25,272	25,814	26,367
Total demand from Tourist population		-	**6,529**	**8,966**	**12,312**	**16,907**	**23,217**	**23,715**	**24,223**	**24,742**	**25,272**	**25,814**	**26,367**
Total demand for Marsascala			**98,748**	**135,537**	**186,032**	**255,339**	**350,466**	**355,871**	**361,369**	**366,961**	**372,647**	**378,431**	**384,313**

The table above summarises the demand analysis for the Marsascala to Valletta to Gozo route.

We assume that the appetite for such ferry services is gradual over time till the fifth year of operation. Based on similar trends of the uptake of the Valletta to Sliema/Three Cities, we apply a **31%** of the total projected demand in the first year of operation (2025), then apply a CAGR of circa **37% on the years 2026 till the fifth year of operation 2029.** For the remaining years, we take the full projected demand based on population and tourist growth rate.

Demand analysis Marsascala - Valletta Ferry

Local Residents

The demand by local residents is identified by focusing exclusively on the localities where the introduction of the proposed ferry results in measurable time savings compared to travelling solely by bus. These are areas where using the ferry offers a more efficient commuting option. The estimated number of local resident users is derived from the population residing within these specific localities. Furthermore, based on JobsPlus data, we identify these individuals as being employed at the ferry's final destination, confirming the relevance of the route for their daily commute.

Thus, based on the total number of employees who would benefit from the implementation of the ferry service, and taking into account the number of working days—adjusted for return trips (i.e., multiplied by two), the resulting total demand for the ferry service is as follows:

Demand analysis from Marsascala to Valletta with return

Locality of Residence	Suitable Alternative as opposed to Bus (based on least timing)	Total employees in locality working in VLT (FTE)	Total employees in locality working in VLT (Part Time)	Total employees	Total working days	Total demand	Total trips
ĦAL GĦAXAQ	Ferry	231	21	252	250	63,000	126,000
MARSASKALA	Ferry	658	58	716	250	179,000	358,000
ĦAŻ-ŻABBAR	Ferry	708	65	773	250	193,250	386,500
BIRŻEBBUĠA	Ferry	467	36	503	250	125,750	251,500
MARSAXLOKK	Ferry	176	18	194	250	48,500	97,000
Total						609,500	1,219,000

Demand analysis Marsascala - Valletta Ferry

Local Residents

Demand analysis from Valletta to Marsascala with return

Locality of Residence	Suitable Alternative as opposed to Bus (based on least timing)	Total employees in locality working in Marsascala (FTE)	Total employees in locality working in Marsascala (Part Time)	Total employees	Total working days	Total demand	Total trips
VALLETTA	Ferry	5	1	6	250	1,500	3,000
IL-FURJANA	Ferry	2	1	3	250	750	1,500
TAS-SLIEMA	Ferry	23	1	24	250	6,000	12,000
SAN ĠILJAN	Ferry	14	2	16	250	4,000	8,000
PEMBROKE	Ferry	3	0	3	250	750	1,500
SAN ĠWANN	Ferry	16	6	22	250	5,500	11,000
II-GŻIRA	Ferry	30	5	35	250	8,750	17,500
TAL-PIETA	Ferry	18	0	18	250	4,500	9,000
IL-ĦAMRUN	Ferry	29	5	34	250	8,500	17,000
BIRKIRKARA	Ferry	31	4	35	250	8,750	17,500
SANTA VENERA	Ferry	13	0	13	250	3,250	6,500
ĦAL GĦARGĦUR	Ferry	1	0	1	250	250	500
IL-MOSTA	Ferry	23	6	29	250	7,250	14,500
IN-NAXXAR	Ferry	12	2	14	250	3,500	7,000
L-IMĠARR	Ferry	0	0	0	250	-	-
IL-MELLIEĦA	Ferry	6	0	6	250	1,500	3,000
ĦAL LIJA	Ferry	6	0	6	250	1,500	3,000
L-IKLIN	Ferry	4	0	4	250	1,000	2,000
ĦAŻ-ŻEBBUĠ	Ferry	15	1	16	250	4,000	8,000
ĦAD-DINGLI	Ferry	1	0	1	250	250	500
L-IMDINA	Ferry	0	0	0	250	-	-
L-IMTARFA	Ferry	2	0	2	250	500	1,000
						72,000	144,000

Demand analysis Marsascala – Valletta Ferry

Tourists

Replicating the methodology for tourists, the estimation is based on the number of tourists whose accommodation is located within the localities where time savings are recorded. This figure is then adjusted by the proportion of tourists who visit the ferry's destination, as indicated by data from the Malta Tourism Authority (MTA). Further assumptions include that the estimated demand accounts for both the outbound and return trips, and that each tourist is assumed to visit the destination only once during their stay in Malta. Based on these assumptions, the total demand for such services by tourists will be:

Demand analysis from Marsascala to Valletta with return

Locality of Residence	Suitable Alternative as opposed to Bus (based on least timing)	Tourist population	Share of tourists visiting VLT	Total Demand	Total trips
ĦAL GĦAXAQ	Ferry	4,013	93%	3,732.01	7,464.01
MARSASKALA	Ferry	28,399	93%	26,411.12	52,822.24
ĦAŻ-ŻABBAR	Ferry	2,933	93%	2,727.24	5,454.47
BIRŻEBBUĠA	Ferry	13,891	93%	12,918.48	25,836.97
MARSAXLOKK	Ferry	16,978	93%	15,789.26	31,578.51
				61,578.10	123,156.21

Demand analysis Marsascala – Valletta Ferry

Tourists

Demand analysis from Valletta to Marsascala with return

Locality	Suitable Alternative as opposed to Bus (based on least timing)	Tourist population	Share of tourists visiting MSCALA	Total Demand	Total trips
VALLETTA	Ferry	130,883	10%	13,221.42	26,442.85
IL-FURJANA	Ferry	92,297	10%	9,323.60	18,647.20
TAS-SLIEMA	Ferry	457,472	10%	46,212.62	92,425.24
SAN ĠILJAN	Ferry	1,034,559	10%	104,508.50	209,017.00
PEMBROKE	Ferry	11,576	10%	1,169.35	2,338.70
SAN ĠWANN	Ferry	30,869	10%	3,118.26	6,236.52
II-GŻIRA	Ferry	249,726	10%	25,226.73	50,453.45
TAL-PIETA	Ferry	-	10%	-	-
IL-ĦAMRUN	Ferry	1,389	10%	140.32	280.64
BIRKIRKARA	Ferry	7,408	10%	748.38	1,496.77
SANTA VENERA	Ferry	-	10%	-	-
ĦAL GĦARGĦUR	Ferry	772	10%	77.96	155.91
IL-MOSTA	Ferry	7,563	10%	763.97	1,527.95
IN-NAXXAR	Ferry	47,692	10%	4,817.71	9,635.42
L-IMĠARR	Ferry	-	10%	-	-
IL-MELLIEĦA	Ferry	454,848	10%	45,947.57	91,895.14
ĦAL LIJA	Ferry	-	10%	-	-
L-IKLIN	Ferry	772	10%	77.96	155.91
ĦAŻ-ŻEBBUĠ	Ferry	30,714	10%	3,102.67	6,205.34
ĦAD-DINGLI	Ferry	-	10%	-	-
L-IMDINA	Ferry	3,550	10%	358.60	717.20
L-IMTARFA	Ferry	-	10%	-	-
				258,815.62	517,631.23

Demand Marsascala - Valletta

Optimal travel based on least time travelled

The demand for the **Marsascala–Valletta** ferry service is assessed based on the total travel time to either destination using public transport. This includes walking, bus, and ferry segments from the individual's residence to the final destination, as well as waiting and onboarding times. The analysis assumes that, in the absence of private vehicle use, bus and ferry services function as substitute modes of transport. Accordingly, it is expected that individuals will act rationally and opt for the route that minimizes overall travel time. As part of our assessment, we also examined the existing ferry service operating between Cospicua and Valletta to evaluate its potential impact on the proposed Marsascala–Valletta route. As illustrated in the tables below, when considering least time commuting, the Marsascala ferry service would primarily serve localities that are not currently catered for by the Cospicua route.

Demand Marsascala to Valletta

Regions	Preferred method of transport
South Eastern	
IŻ-ŻEJTUN	Bus
BIRŻEBBUĠA	Ferry - Marsascala
IL-GUDJA	Bus
ĦAL GĦAXAQ	Ferry - Marsascala
ĦAL KIRKOP	Bus
MARSASKALA	Ferry - Marsascala
MARSAXLOKK	Ferry - Marsascala
L-IMQABBA	Bus
IL-QRENDI	Bus
ĦAL SAFI	Bus
IŻ-ŻURRIEQ	Bus

Regions	Preferred method of transport
Southern Harbour	
VALLETTA	Bus
IL-BIRGU	Ferry - Cospicua
L-ISLA	Ferry - Cospicua
BORMLA	Ferry - Cospicua
ĦAŻ-ŻABBAR	Ferry - Marsascala
IL-FGURA	Ferry - Cospicua
IL-FURJANA	Bus
IL-KALKARA	Ferry - Cospicua
ĦAL LUQA	Bus
IL-MARSA	Bus
RAĦAL ĠDID	Bus
SANTA LUĊIJA	Bus
ĦAL TARXIEN	Bus
IX-XGĦAJRA	Bus

Demand Valletta to Marsascala

Optimal travel based on least time travelled

Demand Valletta to Marsascala

Regions	Preferred method of transport
Northern Harbour	
TAS-SLIEMA	Ferry
SAN ĠILJAN	Ferry
PEMBROKE	Ferry
IS-SWIEQI	Bus
SAN ĠWANN	Ferry
II-GŻIRA	Ferry
L-IMSIDA	Bus
TAL-PIETA	Ferry
TA' XBIEX	Bus
IL-ĦAMRUN	Ferry
BIRKIRKARA	Ferry
ĦAL QORMI	Bus
SANTA VENERA	Ferry
Northern	
ĦAL GĦARGĦUR	Ferry
IL-MOSTA	Ferry
IN-NAXXAR	Ferry
L-IMĠARR	Ferry
IL-MELLIEĦA	Ferry
SAN PAWL IL-BAĦAR	Bus

Demand Valletta to Marsascala

Regions	Preferred method of transport
Western	
Ħ' ATTARD	Bus
ĦAL BALZAN	Bus
ĦAL LIJA	Ferry
L-IKLIN	Ferry
IS-SIĠĠIEWI	Bus
ĦAŻ-ŻEBBUĠ	Ferry
ĦAD-DINGLI	Ferry
L-IMDINA	Ferry
L-IMTARFA	Ferry
IR-RABAT	Bus

Demand Valletta to Marsascala

Regions	Preferred method of transport
South Eastern	
IŻ-ŻEJTUN	Bus
BIRŻEBBUĠA	Bus
IL-GUDJA	Bus
ĦAL GĦAXAQ	Bus
ĦAL KIRKOP	Bus
MARSASKALA	Bus
MARSAXLOKK	Bus
L-IMQABBA	Bus
IL-QRENDI	Bus
ĦAL SAFI	Bus
IŻ-ŻURRIEQ	Bus

Regions	Preferred method of transport
Southern Harbour	
VALLETTA	Ferry
IL-BIRGU	Bus
L-ISLA	Bus
BORMLA	Bus
ĦAŻ-ŻABBAR	Bus
IL-FGURA	Bus
IL-FURJANA	Ferry
IL-KALKARA	Bus
ĦAL LUQA	Bus
IL-MARSA	Bus
RAĦAL ĠDID	Bus
SANTA LUĊIJA	Bus
ĦAL TARXIEN	Bus
IX-XGĦAJRA	Bus

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Demand analysis Marsascala – Valletta Ferry

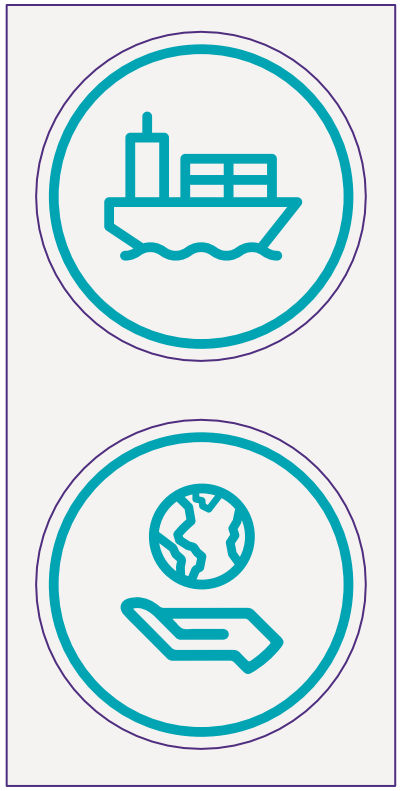
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Maltese residents												
Population growth rate:	*1%*											
Demand analysis for Marsascala to VLT Ferry	1,219,000	377,306	515,239	703,596	960,811	1,312,056	1,326,625	1,341,355	1,356,249	1,371,309	1,386,535	1,401,931
Demand analysis for VLT to Marsascala Ferry	115,200	35,657	48,692	66,492	90,800	123,994	125,371	126,763	128,171	129,594	131,033	132,488
		412,963	563,931	770,088	1,051,611	1,436,050	1,451,996	1,468,118	1,484,420	1,500,902	1,517,568	1,534,419
Tourists arriving in Malta												
Tourist growth rate:	*2%*											
Demand analysis for Marsascala to VLT Ferry	123,156	38,509	52,873	72,594	99,672	136,850	139,783	142,780	145,840	148,967	152,160	155,422
Demand analysis for VLT to Marsascala Ferry	517,631	161,855	222,227	305,118	418,926	575,186	587,516	600,110	612,974	626,113	639,535	653,244
		200,364	275,100	377,712	518,599	712,036	727,299	742,889	758,814	775,080	791,695	808,665

The table above summarises the demand analysis for the Marsascala to Valletta route.

We assume that the appetite for such ferry services is gradual over time till the fifth year of operation. Based on similar trends of the uptake of the Valletta to Sliema/Three Cities, we apply a 31% of the total projected demand in the first year of operation (2025), then apply a Compound Annual Growth Rate of circa 37% on the years 2026 till the fifth year of operation 2029. For the remaining years, we take the full projected demand based on population and tourist growth rate.

Economic benefits

Benefits resulting from the Project



Introduction to section

The introduction of a ferry service between Marsascala and Valletta presents a range of external benefits that contribute to improved urban mobility and environmental sustainability. By offering an alternative to road-based travel, the service is expected to reduce the number of private vehicle trips, thereby alleviating road congestion and shortening travel times across key corridors. Fewer vehicle trips also translate into lower fuel consumption, which not only reduces household transport costs but also contributes to a significant decrease in carbon dioxide emissions. Collectively, these outcomes support Malta's broader goals of enhancing transport efficiency, improving air quality, and mitigating climate change impacts.

These three external benefits—reduced road congestion, lower fuel consumption, and decreased carbon dioxide emissions—will be further explored and quantified in the following two pages of the report. While the estimates presented are high-level, they are grounded in reputable data sources and published research studies. It is also important to note that we undertook conservation assumptions to determine the total trips avoided. This approach ensures that the projected impacts of the proposed Marsascala–Valletta ferry service are both evidence-based and aligned with Malta's strategic objectives for sustainable mobility and climate action.

To further enhance the viability and attractiveness of the proposed ferry service, the project will be supported by improved interlinkages and connectivity with other key public transport services. In particular, establishing direct and efficient connections to other public services such as the University of Malta and Mater Dei Hospital will be a critical step in broadening the service's reach and utility. These strategic linkages are expected to significantly increase the appeal of the ferry service, especially among students, healthcare professionals, and visitors, thereby encouraging a greater shift away from private car use. By integrating the ferry into the wider public transport network, the project can deliver more seamless and convenient travel options, ultimately reinforcing its role in promoting sustainable urban mobility.

Benefits resulting from the Project (cont.)

Reduced traffic congestion means faster travel times

Time Savings by car		Source
Trips avoided	21,924.36	Jobsplus employee data; National Household Travel Survey 2021; Eurostat Passenger Mobility Statistics
Average delay per trip (Time saved) by car in hours	0.50	Google maps to capture time saved; Ferry time captured from discussions with Captain Bugeja
Total time saved (hours)	10,962	
Time value for money - adjusted for inflation (€)	16.24	CBA Gudie
Economic benefit per year (€)	178,025.83	Working

To estimate the number of trips that could be avoided through the implementation of the Marsascala–Valletta ferry service, we first assessed potential ferry usage and capacity by calculating the total demand for travel from Marsascala to Valletta (and potentially onward to Gozo) by both Maltese residents and inbound tourists (as portrayed in the Demand analysis section of this report).

To adopt a more conservative approach in estimating the true potential of ferry users, we have limited our external benefit analysis to only those individuals who previously commuted using private vehicles. This decision assumes that former bus users are unlikely to reduce the overall trip frequency, as bus services will continue to operate as scheduled, with or without them. Therefore, according to the National Household Travel Survey (2021), 89% of Maltese residents rely on private vehicles; this percentage was applied to the total number of resident trips. For tourists, data from the published study Sustainable Tourism Mobility in Malta indicates that approximately 20% use private vehicles—a figure slightly adjusted to reflect increased uptake of the Tallinja card. Accordingly, only 20% of tourist trips were included in the calculation.

Following the estimation of ferry usage, we applied a conversion factor of 1.5% to determine the proportion of ferry users who previously relied on private vehicles. Additionally, we assumed an average car occupancy rate of 1.2 persons per vehicle, based on Eurostat's passenger mobility statistics. Based on these assumptions, the total number of avoided trips is estimated at 19,875.

Based on time saving assessment, the trip to Marsascala to Valletta can be done in half the time when opting for the ferry option rather than private car or bus option, therefore total time saved amounts to almost 11,000 hours.

Benefits resulting from the Project (cont.)

Lower Co2 emission have environmental and health benefits

Emission reduction		Source
VKT reduction (km)	306,941	Google maps to capture distance travelled; Jobsplus employee data; National Household Travel Survey 2021; Eurostat Passenger Mobility Statistics
CO2 emission factor (g of CO2 per km)	91.3	European Environment Agency - Average CO2 emissions per km from new passenger cars
CO2 saved (g of CO2 per km)	**28,023,722**	
Converted to tonnes of CO2 per km	28.02	
Carbon pricing (€/t of CO2)	90.00	Malta National Energy and Climate Plan - EWA
Economic benefit (€)	2,522	

To estimate the potential reduction in emissions, we first calculated the total vehicle kilometres travelled reduction. This was derived by multiplying the number of car trips avoided (explained in the previous slide) by the average distance between Marsascala and Valletta via the Triq il-Barrani route, which is approximately 14 kilometres.

Subsequently, we applied a CO_2 emission factor based on the European Environment Agency's average emissions per kilometre for new passenger cars, in order to determine the total potential CO_2 saving.

Benefits resulting from the Project (cont.)

Fewer car trips leads to less fuel consumption

Fuel Savings		Source
Vehicle kilometres travelled (VKT by car) reduction	306,941	Google maps to capture distance travelled; Jobsplus employee data; National Household Travel Survey 2021; Eurostat Passenger Mobility Statistics
Average fuel consumption (l) per km	0.25	GT working
Fuel saved per year	76,735	
Fuel cost per litre (€)	1.34	Unleaded - Enemed
Economic benefit (€)	102,825.27	

Fuel Savings per person		
Average fuel consumption per km	0.25	GT working
Vehicle kilometres travelled reduction from Marsascala to VLT	14	Google maps to capture distance travelled
Fuel saved per person per day	3.50	
Number of working days	250.00	GT working
Fuel saved per person per year (€)	875	

The shift from private car use to the proposed ferry service is expected to result in significant fuel savings. This estimate is based on the previously calculated reduction in vehicle kilometres travelled, which reflects the number of car trips avoided due to the modal shift. By applying an average fuel consumption rate per kilometre for passenger vehicles, we derived the total potential fuel savings on an annual basis. These savings not only represent a direct economic benefit for commuters in a reduction of approx. €900 in yearly fuel expenses resulting from the daily commute to work but also contribute to broader national goals related to energy efficiency.