Ele.C.Tra - IEE/12/041/SI2.644730
01 Juy 2013 – 31 December 2015

Malta's Mobility Action Strategy: An environmental friendly transport model.

Malta's public transport system had been an outmoded structure for decenniums. Its itineraries were inflexible, failing to accommodate to modifications in the demography. Due to the aforementioned inefficiency, there has been a dramatic increase in the reliance on personal automobiles. The latter expedited a cutback in the utilization of public bus transportation. According to statistics, figures dropped from 59.2 million in 1979 to 30.2 million passengers in 2009. Consequently the engagement of the Malta Intelligent Energy Management Agency (MIEMA) in the ELECTRA project, has the target of recognizing occurrences which endure untenable manoeuvrability; The aforementioned takes places either due to the lack of access ofpublic transport or the thorough use of vehicles depending on intramural combustion engines.

The Ele.C.Tra project plans to confront such concernsthrough the evolution and employment of a Greener Transport Model relying on electric scooters and tenable charging systems. In Malta's case, this inventive method of transportation, will have the consequence function of improving travel times between point of supply and leading office/industrial centres. The fundamental distinctiveness of this model will circle around the usage of a competent web-based scheme which improves the use, chartering and charging of an electric scooter.

Inauguration of Demo EV fleet in Malta

Hybrid Public Transport Bus in Malta

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Co-funded by the Intelligent Energy Europe Programme of the European Union

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Malta's Current Transport Scenario

Notwithstanding the fact that Malta does not cover more than 316km2, an astounding use of independent vehicles thrusted by internal combustion engines exceeding the capacity of1200cc exists. Additionally, most of these automobiles exceed the emission of 130 grams of Carbon Dioxide per kilometre.

Furthermore, the carbon imprint is worsened by traffic jams in the course of day-to-day commuting in the port areas during rush hours to and from work.

Such dependence on private vehicles for going back and forth every day, induced soaring vehicle ownership. Sustaining this fact, in the year 2011 there were 722 cars per 1000 persons aged over 18.

Moreover, a survey completed in 2010, demonstrated that 60,000 journeys took place between 7 am and 8 am. This can be associated with the blockage of Malta's major roads.

MEPA has published a transport topic document attempting to mollify this blockage and carbon footprint.

This paper shows how the quota of certified vehicles surpassed the average of 7,000 cars yearly during the prior 10 years.

Moreover, this numeric value outpaced all projections issued in the Structure Plan of 2002.

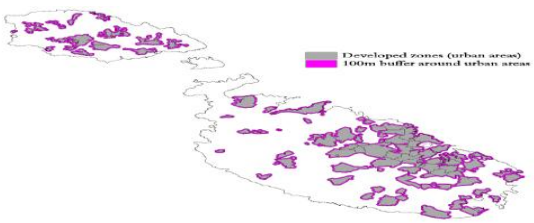
In the fourth quarter of the year 2000, the number of accredited vehicles using over 2000 km of road was more than 247,00 and in 2003 the figure exceeded260,000 vehicles.

While bus travel will not cover more than 12 percent of the total trips in Malta; It is anticipated that in 2020 the number of automobiles per domiciliary is expected to reach satiation

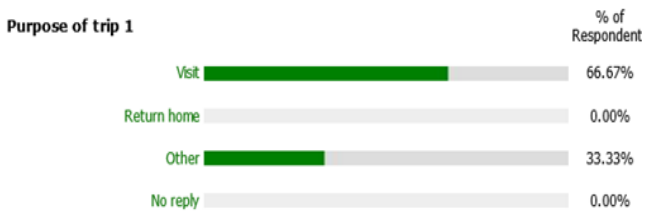
As stated in the study on transport, while cycling and motorbikes comprise a very low fraction of total daily trips, traveling on foot has detained an elementary level of excursion making

In this light the Ele.C.Tra project is devising a transport model which addresses these 4 aspects of transport:

1. **Safety** by decreasing accidents.
2. **Sustainability** by reducing the use of private motorized vehicles.
3. **Equity** by guaranteeing access to mobility for all. ..
4. **Efficiency** by reducing the economic/congestion costs of the transport system.



Developed Areas/Urban in Malta



Daily Commuting in Malta (2014)

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Deciphering Maltese Commutation

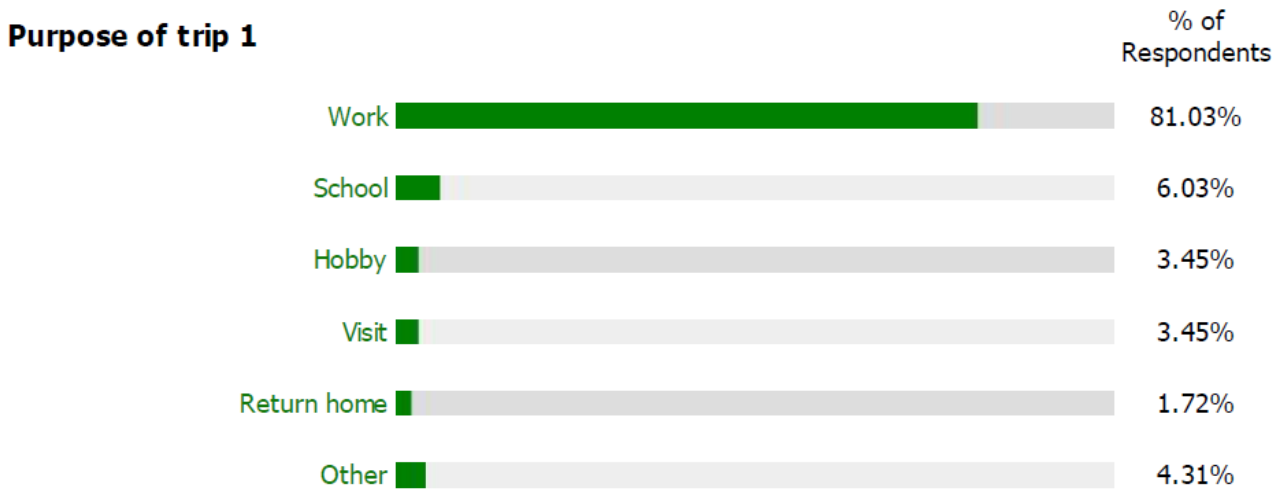
Aiming to understand Maltese Commutation better, a survey was designed and distributed in order to crack the code behind commutation in Malta.

The survey instrument was designed to:

- Enable a better understanding of mobility issues
- Enhance the development of the Ele.C.Tra transport model
- Examine the popularity of the various modes of transport
- Weigh the viability of scooter sharing/leasing/hiring in Malta
- Gather feedback about the reservation of parking slots for users of electric scooters

Further analysis that was carried out, enabled the identification of the various demographical, political and economic factors that shape the harbour area; While an institutional analysis helped to identify the various stakeholders both individual and institutional and the plethora of interactions that need to be taken into account when formulating policies and proposing mobility solutions.

A further study about the towns around the Grand Harbour found an area steeped in history and characterised by an extensive system of fortifications mostly of the early modern era, reflecting a strategic importance that extended up to and included the Second World War. The profound maritime mission of Malta and its people has promoted an economy that transcends the purely agrarian, with the mentioned economy supporting a mere tenth of the current population of the islands. This economy has traditionally centred on the naval and the commercial, and has led to a huge population out of the total proportion of the size of the land.



Purpose of Daily Commuting in Malta (2014)

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Crowdsourcing

Ele.C.Tra is developing a WEB and Mobile application aimed at enhancing the use of Electric Vehicles. This app will rely on crowdsourcing in order to come up with a system which features a distributed problem-solving methodology while enabling a network of people (the crowd) to gather collective intelligence.

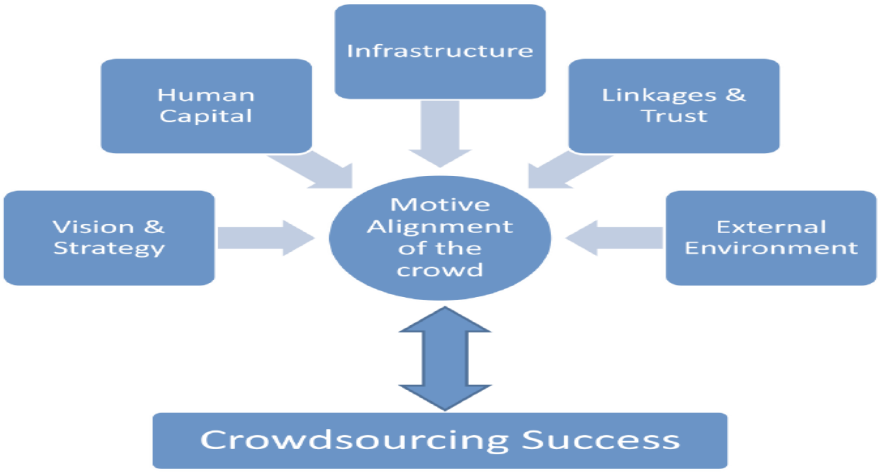
The term crowdsourcing related the evolving ICT and the web as a concept of collective intelligence which has been popularised as the wisdom of crowds (Surowiecki, 2004).

The use of cutting edge technologies in the Ele.C.Tra app will generate a dialogue between service providers and their users while catalysing output and feedback that empowers the people who utilize it.

Subsequently, such a reactive system aims to improve the quality of the service, especially for such communities who are much more dependent on these services and their support infrastructures.

The Malta Intelligent Energy Management Agency aims that through its participation in the Ele.C.Tra project will manage to integrate this transport model within the already existent infrastructure.

The transport model will prove its effectiveness by reducing greenhouse gas emissions, which was calculated using MIEMA's own carbon calculator as circa 1.5 Kg of CO2 per capita daily.



Crowdsourcing Critical success factor model

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