

Smart and Sustainable Mobility

**Alternative Fuels:
Electric Vehicles & Infrastructure by Transport Malta**

July 2021



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Sustainable mobility



Pedestrian options

- Walking



Bike, board, skate options

- Personal (electric) bicycles
- (Electric) bicycle sharing
- (Electric) skateboards, foot skates
- (Electric) kick scooters
- Segways, monowheels and other devices



Vehicular options

- Light electric vehicles
- Car sharing
- Ride sharing or carpooling
- Ride hailing and traditional taxi
- Autonomous vehicles in sharing system
- Park and ride



Public transport options

- Conventional public transport
- Advanced group rapid transit

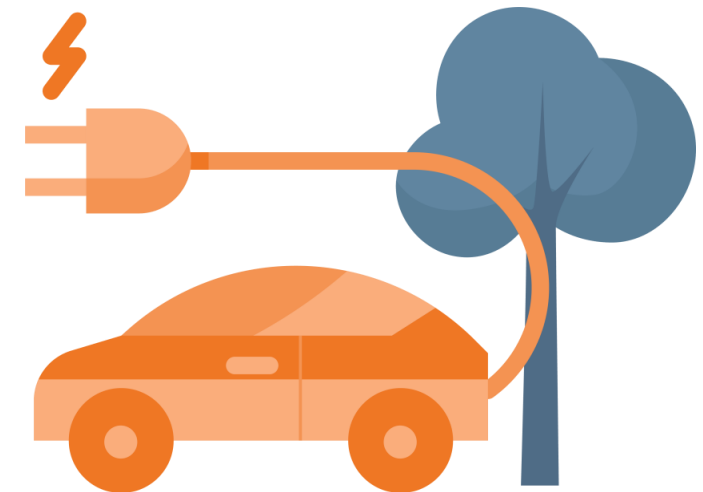
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ICE Cut-Off Date

- EU Commission considering 2035 as possible ICE cut-off date;
- Various MSs announced their own intention for ICE cut-off;
- Malta has not yet announced an official cut-off date;
- Current trend of various OEMs announcing their own cut-off dates, most of which are earlier than 2035;
- It is possible that ICE cut-off will occur earlier as OEMs kill their ICE production;

Transition Period

- Exchange of existing fleet with EVs/alternative fuels will take time;
- Need support measures to enable reduction of emissions of existing fleet;
- Need support measures to facilitate fleet rejuvenation and introduction of new propulsion types;
- Commercial and heavy vehicles need special attention;
- Development of infrastructure needed before markets can safely transit to Electric or alternative propulsion types.



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Grant Schemes

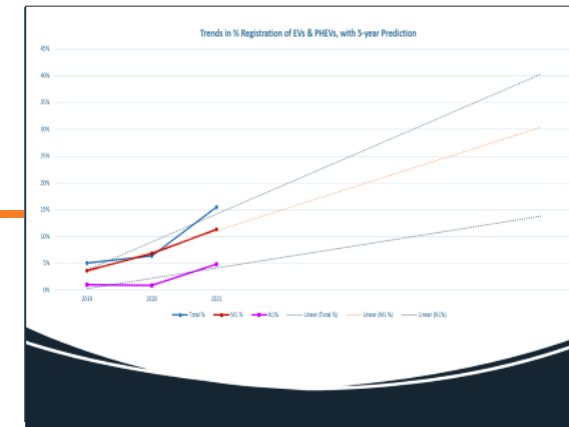
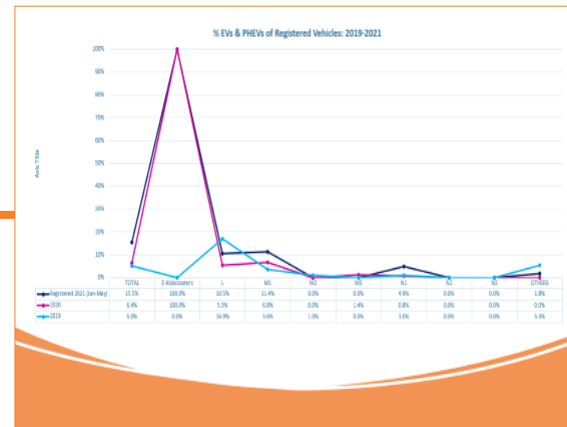
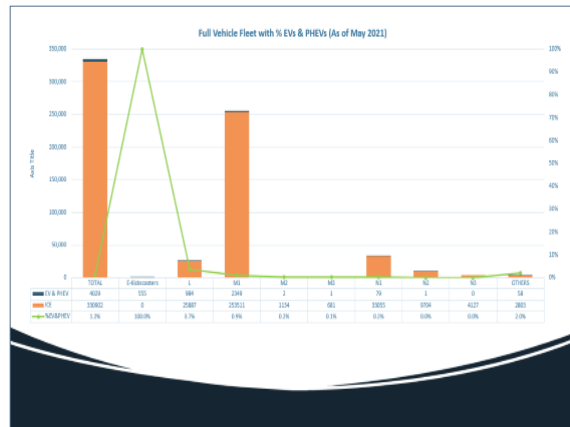
- Over the past years TM offered various grant schemes promoting the purchase of EVs and the conversion of vehicles to work with LPG;
- The 2021 budget include schemes for:
 - The purchase of new EV cars for private and commercial use;
 - The purchase of new EV motorbikes and pedelecs;
 - The retrofitting of cars and trucks to operate with LPG, thus reducing their emissions.

Grant Schemes for 2022

- Continued schemes promoting the registration of new EV cars and conversion of existing vehicles to run on LPG;
- New schemes promoting the registration of new EV minibuses, coaches and trucks;
- New schemes promoting the retrofitting of existing vehicles with exhaust after-treatment technology;
- New schemes promoting the replacement of drivetrains of existing HDVs with new electric drivetrains (repowering);
- New schemes promoting the retrofitting of existing HDVs with solar panels to reduce emissions.

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Vehicle Fleet and diffusion of EVs and PHEVs

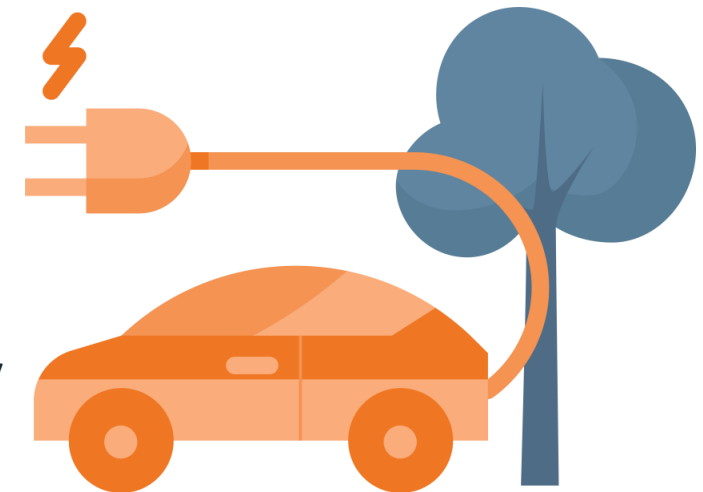
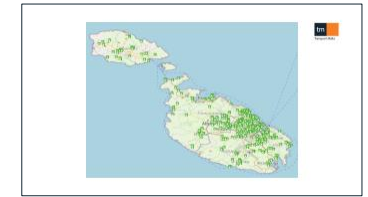


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EV Key Challenges

- EV Charging:
 - Significant part of population does not have access to charging at home, especially those who do not own a garage or parking space;
 - Alternative charging solutions need to be identified and promoted, such as parking areas close to offices, and shopping and entertainment outlets, and other public car parks;
 - Alternatives to the single/two car charging pillars are required to allow efficient use of charging infrastructure;
 - Common payment schemes for charging networks.
- EV Buses and coaches:
 - Locations where buses and coaches are normally parked (Valletta terminus, MIA, Cruise port) need a higher density of charging solutions;
 - These locations also need a solution to allow stopped buses and coaches to keep their ACs on without relying on their own battery, which would greatly reduce their possible driving range.



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Free Public Transport Services

- Scheme offered since 2017, when it was launched for 18-year olds only;
- It was extended on a yearly basis, and today it applies between 14 and 20 years, for students older than 20 years, and from 70 years onwards;
- TM working to extend scheme further for all children and from 60-70 years cohort as well as for children aged 4-14 years.

Electrification of Buses and other Public Transport Vehicles.

- MPT operates close to 430 buses, mostly EURO VI;
- Existing plans to introduce electric buses;
- Interest from taxi and cab services to also introduce electric vehicles in respective fleets.



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Car sharing and Car Pooling

- Intended to dissuade the purchase of own vehicles; and
- Promote the sharing of common means of transport.
- Car sharing service instrumental to introduce EVs on local roads and allow people try these new vehicles out.

E-Kickscooters

- Offering a an alternative to walking and cycling, especially on sloping roads and in urban areas;
- Regulated through a specific set of rules, helping to maximise related benefits and reduce risks;
- Malta was one of the first countries to regulate this new sector.



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Road Infrastructure

- Current efforts to upgrade Malta's road infrastructure is expected to bring benefits in terms of efficiency of Public Transport service and an overall reduction in trip times and congestion;
- This opportunity needs to be coupled with new investment in the current vehicle fleet promoting smaller and better cars, and a higher use of public transport services.

Reduction of emissions in dense urban areas

- The pedestrianisation of Valletta and other minor similar projects can be considered as a proof of concept for the limitation of emissions in other dense urban areas, mostly town centres;
- The introduction of more low emission vehicles, coupled with new technologies being tested by TM can help introduce new schemes aimed at reducing such emissions with limited social impacts on all affected parties.



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Grazzi!

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