



National Technical University of Athens Road Safety Observatory



Action Plan for promoting electromobility and alternative fuels

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Together with: Panagiotis Papantoniou, Eleni Vlahogianni and George Yannis



The eMOPOLI project

- Title of the project: Electro MObility as driver to support POLicy Instruments for sustainable mobility
- Project partners
 - ➢ 9 regions from 8 European countries
- Duration of the project: 54 months (June 2018 – November 2022)
- Framework Program: Program Interreg Europe
- Project Objectives:
 Diffusion of electromobility for a greener, safer and more efficient traffic in European Regions









Background

The transportation sector

- > Has the biggest share in energy consumption
- \succ Highly contributes to CO₂ emissions
- The road transportation sector
 Leader in CO₂ emissions
- Smart and sustainable cities are gaining more and more attention
- Electromobility and alternative fuels
 - Key solutions towards sustainability and urban life quality improvement

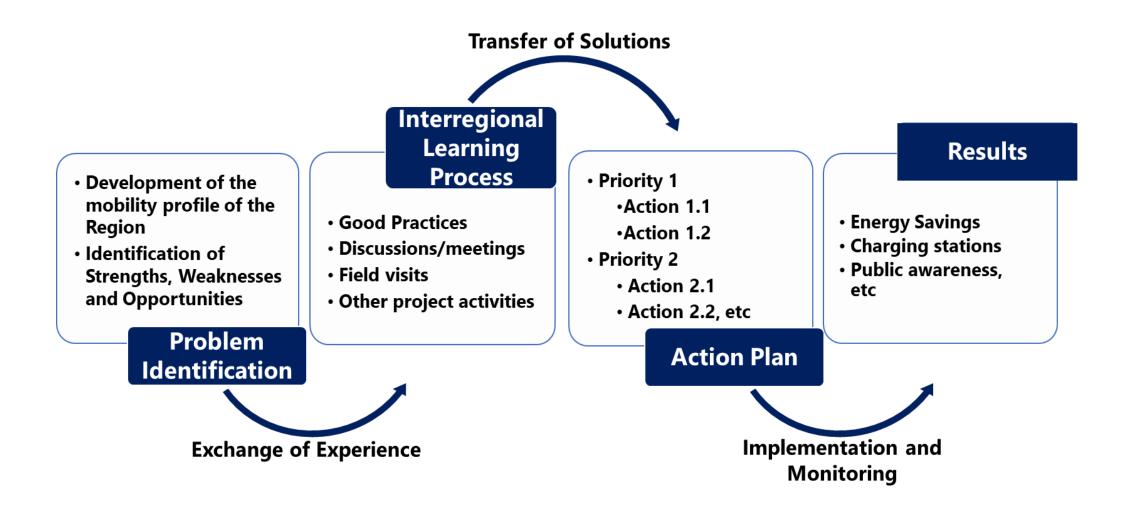
Actions need to be taken for diffusing these technologies





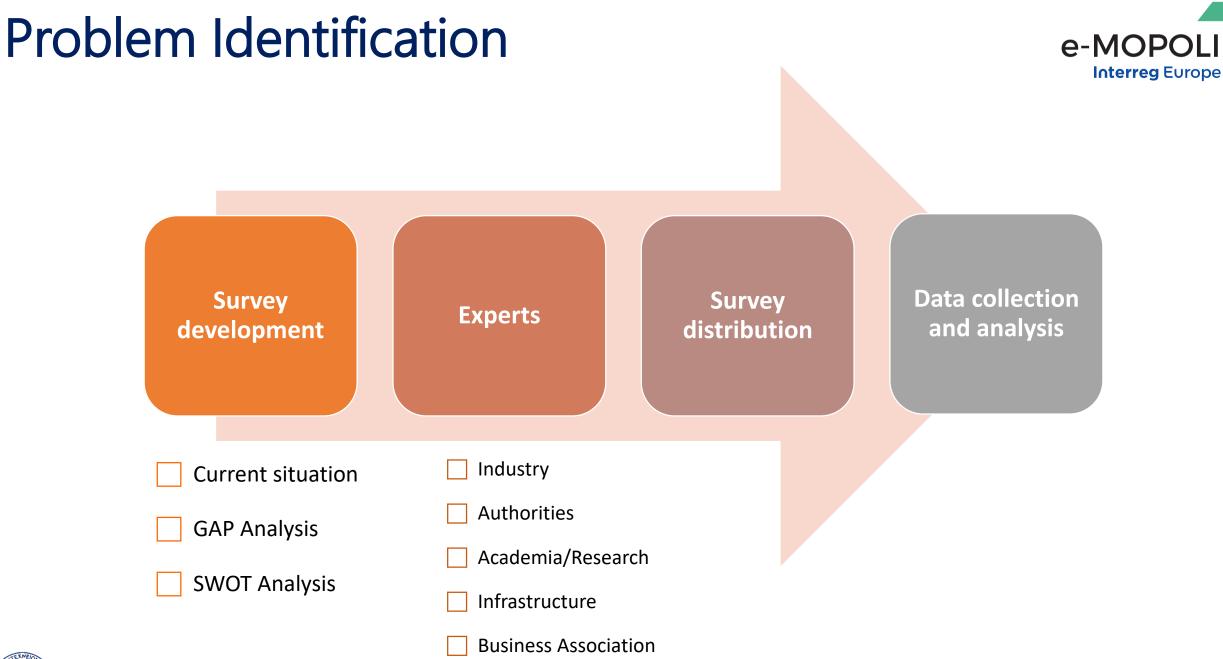
Methodology









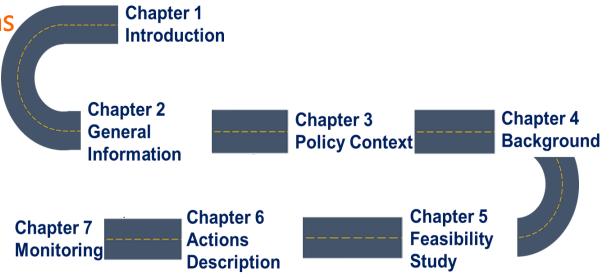




The Action Plan



- Provides details on how to implement lessons learnt
- Describes the policy instrument addressed
- Includes concrete, targeted and reasonable actions
- Specifies the defined actions
 - Inspiration/Background
 - > Objectives
 - > Impacts
 - Timeframe
 - Stakeholders involved
 - > Costs
 - Funding sources
- Indicates how the actions contribute to policy instrument improvement
- > Specifies the monitoring process of the actions





The Action Plan of Attica Region



Streets for

Policy Instrument addressed: Attica ROP 2014-2020, Priority Axis 6: Improving Quality of Life in Urban Environment

Priority Axis 1: Equipment/Vehicles

- Renewal of the vehicle fleet of Region of Attica with electric vehicles
- Feasibility and Financial Studies for the scenario selected

Priority Axis 2: Infrastructure

- ✓ Installation of charging stations in 4 key locations
- ✓ Feasibility and Financial Studies for the scenario selected

Priority Axis 3: Promotion

 Organization of seminars / exhibitions / conferences for raising public awareness





Safety Impacts

- Collision can increase the risk of electric shock
- Increase of battery temperature may lead to explosion
- EVs are heavier than conventional vehicles due to the batteries
 - ➤ Safer for its occupants
 - > Dangerous for the passengers of the other vehicle
- No sound warning that a vehicle is approaching at low speeds
 - Silent electric vehicles cannot be detected by vulnerable users
- Blind or visually impaired people are exposed to high risk
- Faster acceleration than conventional vehicles





Future Challenges

- Multiple tests of electric vehicles concerning the various safety issues
- New technologies for overcoming the safety issues should be developed
- Raise public awareness about electric vehicles
- Increase user acceptance and favor the shift form conventional vehicles to electric
- Cooperation between stakeholders for promotion of electromobility
- Creation of an appropriate charging network









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