

Investigating gaps in electromobility: The case of Region of Attica

Foteini Orfanou

Panagiotis Papantoniou, Eleni Vlahogianni, George Yannis



National Technical University of Athens
Department of Transportation Planning and Engineering



UNIVERSITY OF
WEST ATTICA
ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ

Introduction

- Smart and sustainable cities and gaining increasing attention worldwide
- Electric and alternative fuels
 - Key solutions towards greener transportation systems
 - Significant benefits
- Satisfactory progress in Greece during the last years
 - Still low penetration rate



Scope of Work

- Promotion of electromobility and alternative fuels in Attica Region
 - Detection of obstacles
 - First Step → analysis of current situation
- GAP Analysis for Attica Region
 - Progress achieved
 - Deficiencies identification
 - Fields to be further improved
- Comparative Gap Analysis
 - Time period: 2018 - 2021



The eMOPOLI project

- Full project title
 - 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 electro-mobility for a greener, safer and more efficient traffic in European Regions



Methodology

**Thematic Areas
Definition**

Experts

**Survey
distribution**

**Data collection
and analysis**

Thematic Areas

Business

- Charging stations
- Electric Vehicle Fleet
- Alternative Fuels Fleet
- Technology
- Campaigns

Governance

- Legislation
- Enforcement
- Education
- Incentives
- Campaigns

RIS3

- Research
- Innovation
- Synergies
- Strategic Plan

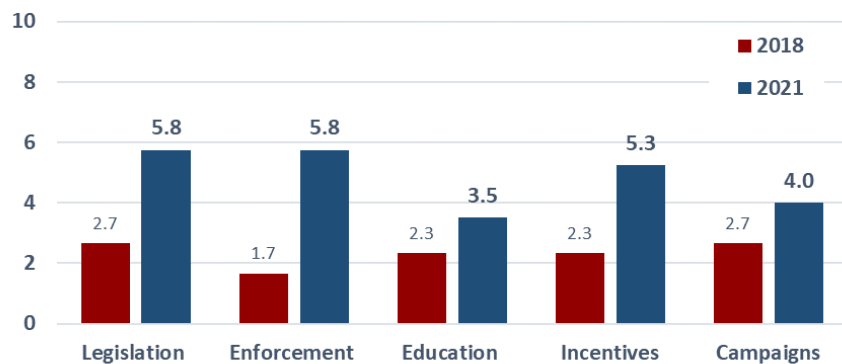
Experts

- Members with deep knowledge and experience in the field of electromobility
- Working in:
 - Industry
 - National/Regional/Local public authorities
 - Academia/Research
 - Business Association
 - Infrastructure – Public Service
 - General body

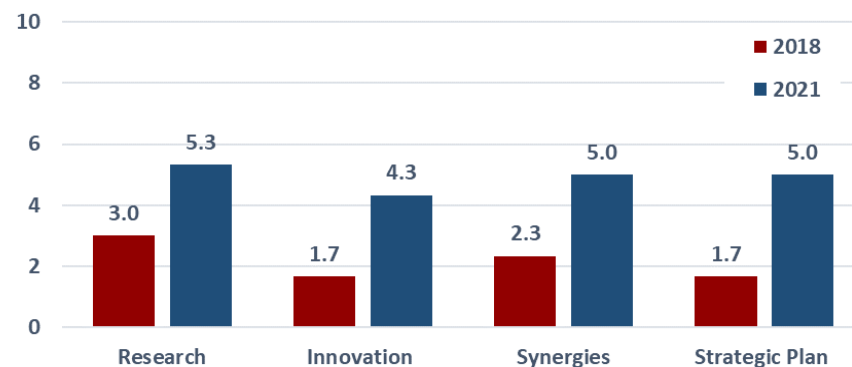


Results

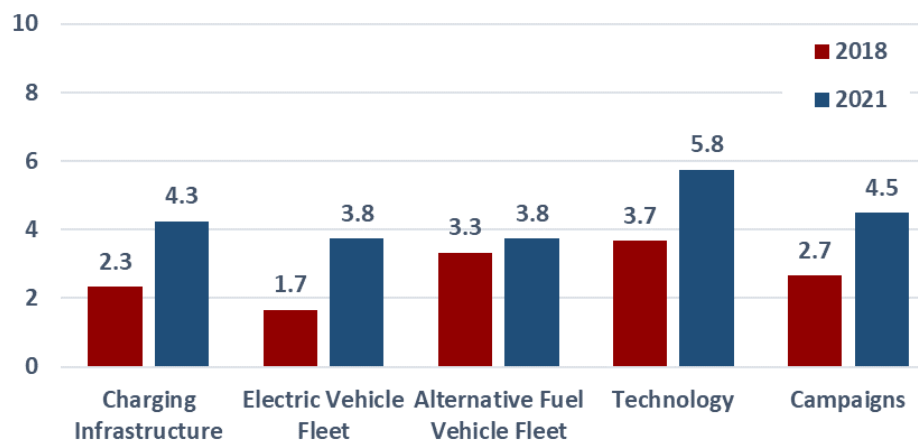
Governance



RIS3



Business



News (1/5)

- First Greek Law for the promotion of electromobility (2020)
 - Environmental tax enforcement for the imported old, second hand vehicles with high emission levels
 - Tax incentives for promoting electromobility (e.g. for businesses producing electric vehicles or products related to electric vehicles)
 - Spatial planning regulations for the development of publicly accessible charging stations (at least 1 station per 1000 residents)
 - Urban planning regulations and other requirements for the installation of charging stations
 - Grants for the purchase or leasing of electric vehicles (passenger cars, vans, motorcycles/tricycles, bicycle)



News (2/5)

➤ Strategic Plan of Region of Attica

- In one of the metropolitan parks:
 - the first fast chargers have been installed
 - A fully electric vehicle is used for the park needs
- Network of publicly accessible charging stations in the main road network of Attica and in key locations will be created
- It is planned that the drivers and employees of Region of Attica will be trained in eco and safe driving
- A new department for electromobility issues will be created



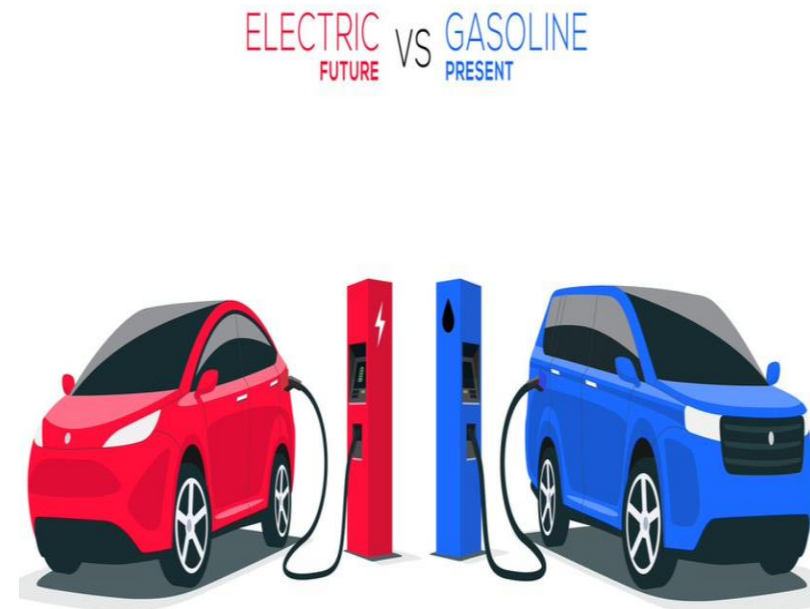
News (3/5)

➤ Green Daktylios in the city of Athens

- Since January 2021, electric and hybrid vehicles (CO₂ emissions lower than 140g/km) and conventional vehicles (emissions lower than 175g/km) are allowed to enter the Inner Ring any day.
- Since October 2021 only electric vehicles have no restrictions

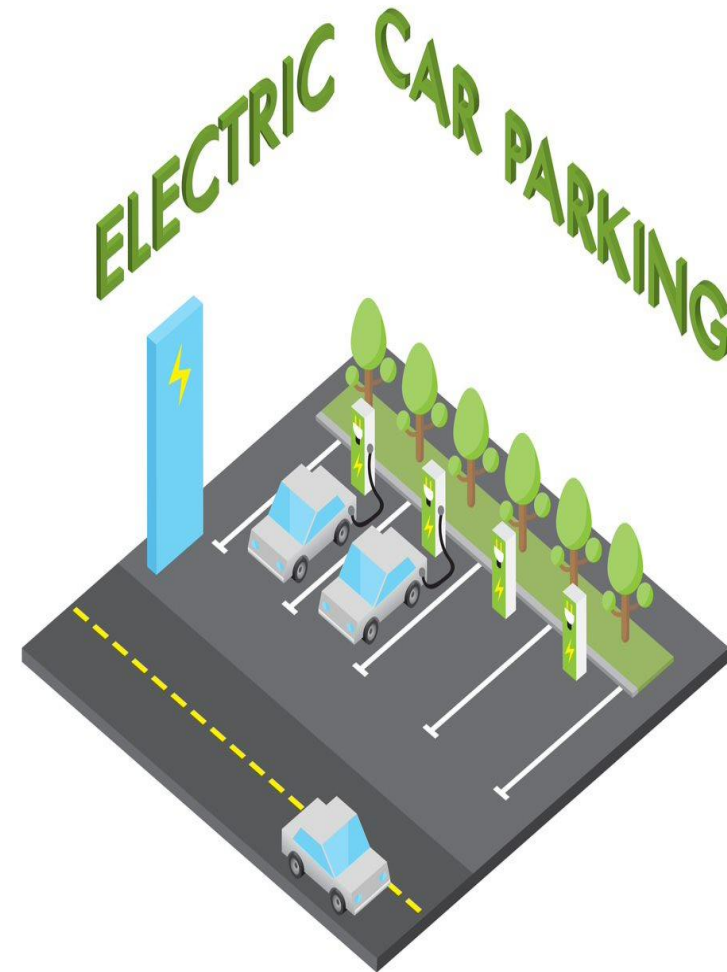
➤ 2nd Eco – Fest

- Organized by the
 - Hellenic Association for Energy Economics
 - the Prefecture of Attica
- Raise public awareness on the concept of green and smart cities
- Test-drive electric vehicles, motorcycles and bikes
- Innovative electric "formulas" developed from Greek universities.



News (4/5)

- Pilot routes of 4 demo electric busses
 - Purchase of electric busses is planned
- Special Traffic regulations in the city of Athens for electric vehicles
 - Free park for electric vehicles
- 4 Ecomobility Conferences (2018-2021)
 - Organized by Hellenic Association for Energy Economics
 - Attendees could be informed about electromobility- alternative fuels- green mobility
 - Stakeholders from various institutions
- “Green deal”
 - Between ministries of Infrastructure and Transport and Environment and Climate Change and 18 institutions
 - Defines the obligations towards the fastest implementation of the national strategic plan for transition to electricity



News (5/5)

- **Mobility 2021 (first time in Greece)**
 - Raise public awareness
 - Test drive of electric vehicles
- **Electric “English taxis” of LEVC**
- **Public Power Corporation (DEI)**
 - Around 400 charging stations in more than 60 areas in 30 prefectures in Greece during the last 5 months
 - 10.000 stations to be installed the next 5 years
 - Fast charging stations to be installed along the road network connecting the city of Athens with Thessaloniki
 - 14 charging points in Athens International airport
 - Application DEIblue
 - search for the closest available stations
 - suggest locations the next charging station



Conclusions

- GAP Analysis revealed areas:
 - Progress achieved
 - Need to be improved
- GAP Analysis indicated
 - Important steps for promoting electromobility in Greece and in Region of Attica within the period 2017-2021
- More campaigns/dissemination events necessary for raising public awareness
- More charging stations need to be installed to reduce range anxiety
- Results of GAP Analysis → basis for setting targeted and concrete actions



Next Steps

➤ Phase 2 of the eMOPOLI project has started

Priority Axis 1: Equipment/Vehicles

- ✓ Renewal of the vehicle fleet of the 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

➤ Implementation of the Regional Action Plan of Region of Attica

Investigating gaps in electromobility: The case of Region of Attica

Foteini Orfanou

Panagiotis Papantoniou, Eleni Vlahogianni, George Yannis



National Technical University of Athens
Department of Transportation Planning and Engineering



UNIVERSITY OF
WEST ATTICA
ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ