Embracing Electromobility in Greece: Review of Good Practices in the Region of Attica

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Background and Objectives

- **Background:**
  - Energy consumption and emissions production is being **increased worldwide**
  - Major Contributors: transportation sector and especially **road transportation** field (EU data)
  - New features to monitor and analyze driver behavior through
    - Electromobility
    - Alternative fuels
  - Adopting measures named as **Good Practices**

- **Objectives:**
  - **Identification** and analysis of Good Practices in the Region of Attica
  - **Classification** of GPs
  - **Evaluation** of GPs
  - **Ranking** of GPs
# Review and Classification of GPs

## Category 1: Development of charging infrastructure
- **GP3:** Installation of 7 charging stations and demo pilot project in Athens
- **GP5:** Action Plan for the development of electric vehicles charging stations
- **GP6:** Development of the first network of EV charging stations
- **GP8:** Plan for infrastructure design for EV charging station installation
- **GP9:** Installation of 4 Vehicle-2-Grid EV charging stations

## Category 2: Promotion and Awareness
- **GP1:** Exhibition of electric scooters and creation of a GIS web platform
- **GP7:** Hi-Tech Eco Mobility Rally

## Category 3: Charging and tolling policies favoring e-vehicles
- **GP2:** Composition of a Committee responsible for the investigation of the ways that the introduction and penetration of electric vehicles in the Greek market.

## Category 4: Research, education and training
- **GP4:** Development, construction and operation of the first standalone Solar Electric-Vehicle (EV) Charging Station in the country, “CARPORT”
- **GP10:** The Ecocar
Evaluation of Good Practices

- Evaluation Criteria
  - Relative advantage
  - Ease of Use
  - Vehicle Performance
  - Awareness
  - Environmental benefit
  - Energy system storage operation and management enhancement

<table>
<thead>
<tr>
<th>Good Practices</th>
<th>Relative Advantage</th>
<th>Ease of Use</th>
<th>Vehicle Performance</th>
<th>Awareness</th>
<th>Environmental Benefit</th>
<th>Energy System Storage and Management Enhancement</th>
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- Group of 15 experts
- Evaluation scale 0 – 5
Ranking of Good Practices

Analytic Hierarchical Process (AHP)

Hierarchization of the problem criteria → Pairwise comparison of the criteria → Weight calculation for each criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Environment</th>
<th>Energy System</th>
<th>Awareness</th>
<th>Relative Advantage</th>
<th>Ease of use</th>
<th>Vehicle Performance</th>
<th>Weight (%)</th>
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Results and Conclusions

- GPs with **high evaluation score**:
  - GP9: Installation of 4 Vehicle-2-Grid EV charging stations
  - GP4: “CARPORT” charging station
  - GP10: The Ecocar

- Most Important Evaluation Criteria:
  - Energy system
  - Environmental Impact
  - Share and exchange of experience
  - Knowledge transferability
  - Policy making process improvement and policy effectiveness increase
  - Useful **guide** for policy makers and stakeholders
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