

# Autonomous vehicles' readiness assessment

## A case study of Greece

### Introduction

AVs appear to be the cornerstone for a decisive reshaping of the road transport sector. This is evident from the rising level of interest both within academia and the industry. An interesting topic that falls under the second of the aforementioned categories is the assessment of the readiness of each country to introduce such vehicles into their transport networks. This type of analysis is considered of particular importance regardless of the outcomes since several areas could be identified, in which policy makers should focus in order to enable the smooth transition to AV technologies.

### Methodology

- To review literature related to AV readiness
- To shape a set of representative criteria
- To weight criteria criticality – Analytic Hierarchy Approach
- Assess the readiness of Greece

### Criteria Selection

- Avoid overlaps between different criteria
- Avoid adopting vague criteria, which are not clearly associated with the topic at hand and may be addressed from more than one and, potentially, conflicting perspectives
- Avoid excessively increasing the total number of criteria by merging those that are similar in nature and adopting proposed categorizations
- Avoid using criteria that are purely intended to make recommendations rather than assessing the readiness for AVs

### Scores

Assessment	Score
Very low	0.00
Low	0.25
Moderate	0.50
High	0.75
Very high	1.00

w = 0,236

#### Policy and Legislation

Criterion	Weight	Greece
AV regulations	0,119	0,25
Government-funded AV pilots	0,064	0,25
AV-focused agencies	0,106	0,25
Government readiness for change	0,225	0,75
Effectiveness of legislative process & efficiency of the legal system in challenging regulations	0,229	0,25
Data sharing environment	0,271	0,50

w = 0,408

#### Technology and Innovation

Criterion	Weight	Greece
Industry partnerships	0,137	0
Number of non-governmental AV actors	0,184	0,25
AV-related patents	0,087	0,25
Industry investments in AV technologies	0,299	0
Availability of the latest technology & capacity for innovation	0,202	0,25
Market share of electric cars	0,091	0

w = 0,155

#### Infrastructure

Criterion	Weight	Greece
Suitability of roadside structures	0,161	0,25
Quality of mobile internet	0,245	0,50
Quality of roads	0,135	0,75
Logistics infrastructure	0,090	0,75
Technology infrastructure change readiness	0,368	0,50

w = 0,201

#### Consumer Acceptance

Criterion	Weight	Greece
Consumer opinions regarding AVs	0,118	0,50
Population living in test areas	0,081	0,25
Civil society technology use	0,247	0,75
Consumer adoption of technology	0,243	0,50
Online ride-hailing market penetration	0,132	0,25
Average vehicle value	0,179	0,25

### Readiness of Greece

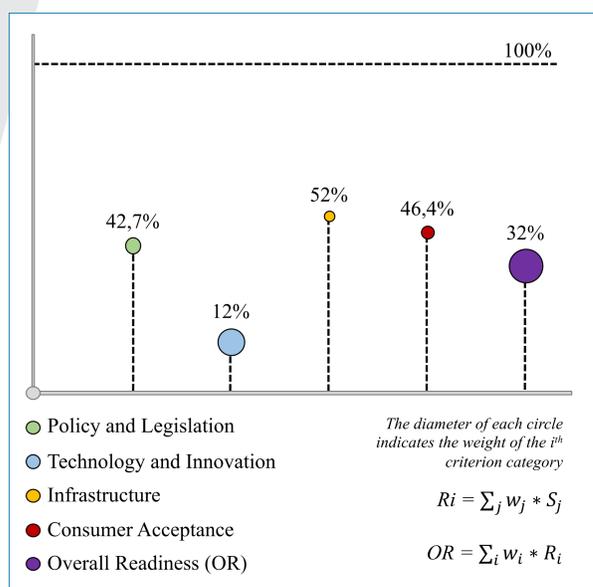


Fig. 1. Readiness of Greece for AVs

### Justification examples

Criterion	Greece	Justification
Market share of EVs	0.00	Extremely low, since relevant literature indicates that the market share is lower than 10%
AV-focused agencies	0.25	Two entities currently exist (Ministry of Transport and Infrastructures) for ITS regulation and promotion
Data sharing	0.50	Greek NAP has been deployed recently and it is expected to promote the concept of data sharing
Logistics infrastructure	0.75	World Bank assessment ranked Greece 42 out of 160 countries in this field

### Conclusions

- The results may not appear optimistic at the first glance. **However** it is of note that Greece performed disappointingly only in one category
- This presents a clear area for policy makers to focus on, namely promoting a culture of technology and innovation (e.g. securing funds and promoting the creation of industry partnerships)
- Future assessments** will be updated to include criteria for which no data were currently found, experts from other relevant fields, and benchmarking of Greece against other countries