



Automotive CO2 Emission Regulation Landscape and Future Outlook

Client	A leading automotive supplier
Industry	Automotive
Products	Driving Assistance Systems, Powertrain Systems, Thermal and Visibility Systems.

Background

- The Client wanted to understand the current CO2 emission regulations and their impact on client's current as well as future product portfolio

Key Business Questions

- What are the current regulations for CO2 emissions and labeling requirements?
- What are the driving / restraining factors for these regulations?
- What are the take-aways for Tier 1 Suppliers and OEMs?

Engagement Scope

1	Regulations Listing	2	Analysis of Current Regulations	3	Key Drivers and Impact Analysis	4	Key Findings and Conclusions
▪	What are the current regulations in force with respect to CO2 emissions and labeling requirements?	▪	How do these regulations affect OEMs and Tier 1 suppliers?	▪	What is the aim of the regulations in the respective geographies? Who do these regulations protect / affect?	▪	What are the possible expected new regulations that could affect the automotive value chain in the future?
▪	Do these regulations differ across geographies?	▪	What are the labels which select Tier 1 suppliers have provided for their products?	▪	Identification of past and current regulations	▪	What should OEMs and Tier 1 suppliers be ready for in the future?
▪	What is the status of these regulations – whether in force or still under review etc.?	▪	Have there been any changes / amendments to these regulations?	▪	What are the benefits of CO2 labeling?		

Research Methodology

Secondary Research

- Conducted desk research to gather entire list of regulations
- Referred to government sources, regulation specific portals/journals and industry specific focus groups.

Primary Research

- 30+ Telephonic interviews with OEMs, Tier 1 suppliers and industry experts etc.

Sample Analysis

Benefits to Client

- Client gained complete understanding of the current CO2 emission regulations across different geographies
- The insights on the impact of the identified regulations on the client's product portfolio and select markets formed the basis for modifying the product development, portfolio as well as target markets entry strategy

1 Regulations Listing

Regulation (EU) 2017/1154

Agreement concerning the establishment of global technical regulations for selected vehicles, equipment and parts which can be used for road-based motor vehicles

Decision: The Commission of Global technical regulations ("Candidate") was made according to the provisions of Article 3 of the Agreement concerning the Establishment of Global Technical Regulations for Motor Vehicles, Equipment and Parts which can be fitted and/or be used on wheeled vehicles.

2 Analysis of Current Regulations

Regulatory Scenario Overview - Car Labelling

Production - Car Labelling (Fuel Economy Labelling) - US

Vehicle Technology & Fuel Economy: The label shows City, Highway and Combined MPG ratings per gallon/miles.

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3 Key Drivers and Impact Analysis

Harmonizing Standards

Standard	Title	Year	Price	Short Description
ISO 15183:2017	Passenger cars - Fuel economy (defining system - Test method)	2017	645 EUR	This international standard specifies the test method for passenger cars classified as CO2 class 1, new motor-vehicle classes, when these are tested. It does not specify reference conditions for test performance, since these are the responsibility of the manufacturer. It also specifies the test procedure for the test method.
ISO 15183:2014	Passenger cars - Fuel economy (defining and describing system - Test method)	2014	578 EUR	This international standard specifies the test method for passenger cars classified as CO2 class 1, 2 and 3, new motor-vehicle classes, when these are tested. It does not specify reference conditions for test performance, since these are the responsibility of the manufacturer. It also specifies the test procedure for the test method.

Production - Car Labelling (Fuel Economy Labelling)

In 2012, EPA and the National Highway Traffic Safety Administration (NHTSA) updated the light-duty vehicle fuel economy label with the following information:

- Vehicle Technology & Fuel Economy: The label shows City, Highway and Combined MPG ratings per gallon/miles.
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4 Key Findings and Conclusions

United Kingdom

Key Findings and Conclusions

The Fuel Economy label provides key information to consumers about the energy efficiency of a vehicle. It includes the following information:

- Fuel Economy:** City, Highway and Combined MPG ratings per gallon/miles.
- CO2 Emissions:** City, Highway and Combined CO2 emissions in grams per kilometer.
- Vehicle Technology & Fuel Economy:** Information about the vehicle's engine, transmission, and other key features.

Thank you

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