



Malaysia Automotive Institute **MAI**

MALAYSIA INITIATIVE ON FUEL ECONOMY DEVELOPMENT





MALAYSIA AUTOMOTIVE INSTITUTE (MAI)





The MAI office is designed with an open space concept.



MISSION

THE LEADING ORGANISATION FOR THE DEVELOPMENT OF THE MALAYSIAN AUTOMOTIVE INDUSTRY TOWARDS SUSTAINABILITY

MISI

MENJADI ORGANISASI TERKEMUKA DALAM PEMBANGUNAN INDUSTRI AUTOMOTIF MALAYSIA KE ARAH KELESTARIAN



VISION

ENHANCE THE COMPETITIVENESS OF THE AUTOMOTIVE INDUSTRY THROUGH THE STRATEGIC DEVELOPMENT OF HUMAN CAPITAL, TECHNOLOGY, SUPPLY CHAIN, AND INTERNATIONAL OUTREACH

VISI

MENINGKATKAN DAYA SAING INDUSTRI AUTOMOTIF MELALUI PEMBANGUNAN STRATEGIK MODAL INSAN, TEKNOLOGI, RANTAIAN BEKALAN DAN JANGKAUAN ANTARABANGSA

STRATEGIC THINKING PEMIKIRAN STRATEGIK

COORDINATE POLICIES PENYELASARAN POLISI

Policy Formulation
& Industry Research



Pengolahan Polisi
& Penyelidikan Industri

Human Capital
Development



Pembangunan
Modal Insan

Think Tank



Pemikir
Strategik

Industry Stakeholder
Intermediary



Perantara Pemain
Industri

COMPONENT
VENDORS

CONSUMERS

CAR
MANUFACTURERS

AFTER
SALES

RESEARCH &
DEVELOPMENT

GOVERNMENT
BODIES

ACADEMIA

HUMAN
CAPITAL

MAI

ROLES & RESPONSIBILITY FUNGSI & PERANAN



Enhance technology, human capital, supply chain, market outreach and after-sales capabilities of all automotive stakeholders and ecosystems.

Pemerkasaan keupayaan teknologi, modal insan, rantaian bekalan, jangkaan pasaran & lepas jualan bagi ekosistem & industri automotif.

Strengthening domestic automotive industry through:- policy formulation, research, international outreach, programme development, talent enhancement & promoting competitiveness.

Penguatan industri automotif domestik melalui:- formulasi polisi, penyelidikan, program jangkaan antarabangsa, pembangunan program, pembangunan bakat & peningkatan daya saing.



Undertake strategic research and policy advice to the government through combined efforts of the public and private stakeholders.

Menjalankan penyelidikan strategik & rundingan polisi melalui kerjasama antara institusi awam & swasta.

Mobilise & harness collective efforts amongst automotive stakeholders to develop common strategies at the national and international level & promote strategic alliances and linkages for technology & market outreach.

Mengerakkan kerjasama antara semua pihak berkepentingan dalam industri automotif bagi membentuk strategi di peringkat tempatan & antarabangsa, dan menggalakkan pakatan strategik bagi pertukaran teknologi dan jangkaan pasaran.



MAI has strengthened its institutional capacity by positioning itself as an **Automotive Manufacturing Innovation Centre** with 3 centres established to date:

- MAI Resource Center – Bukit Beruntung, Selangor
- MAI Design Center – Rawang, Selangor
- National Emission Test Center – Rawang, Selangor



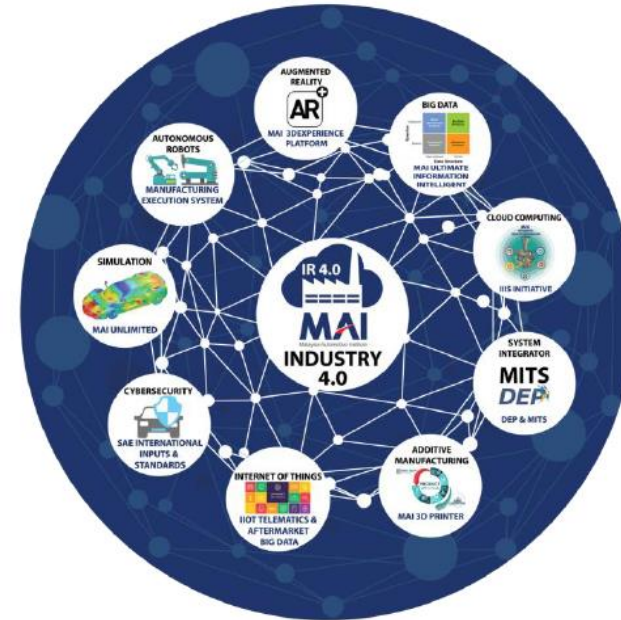


MAI RC is the
bridging
center for
automotive
talent
development





MAI DC is the gateway for the implementation of Industry 4.0 within the automotive industry.





NETC is the most advanced vehicle emission testing facility in ASEAN for Energy Efficient Vehicle (EEV) certification with capacity up to Euro 6D.





NATIONAL AUTOMOTIVE POLICY (NAP)



NAP 2006

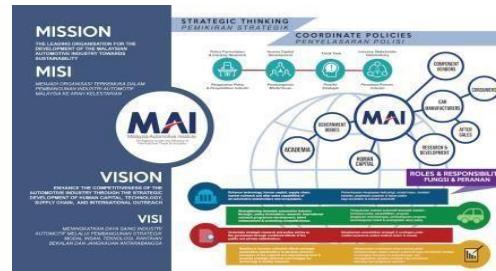
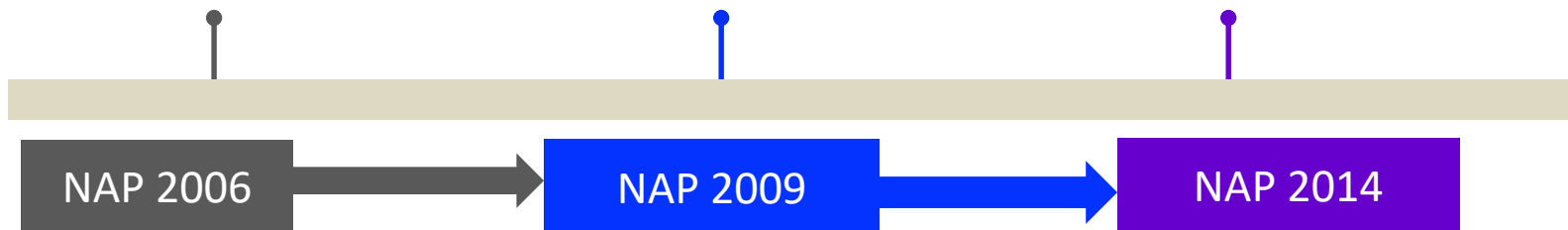
Introduced to transform the domestic automotive industry and integrate it into the increasingly competitive regional and global industry network

NAP 2009

The first NAP reviewed in 2009 aimed at creating a more conducive environment in the domestic automotive industry

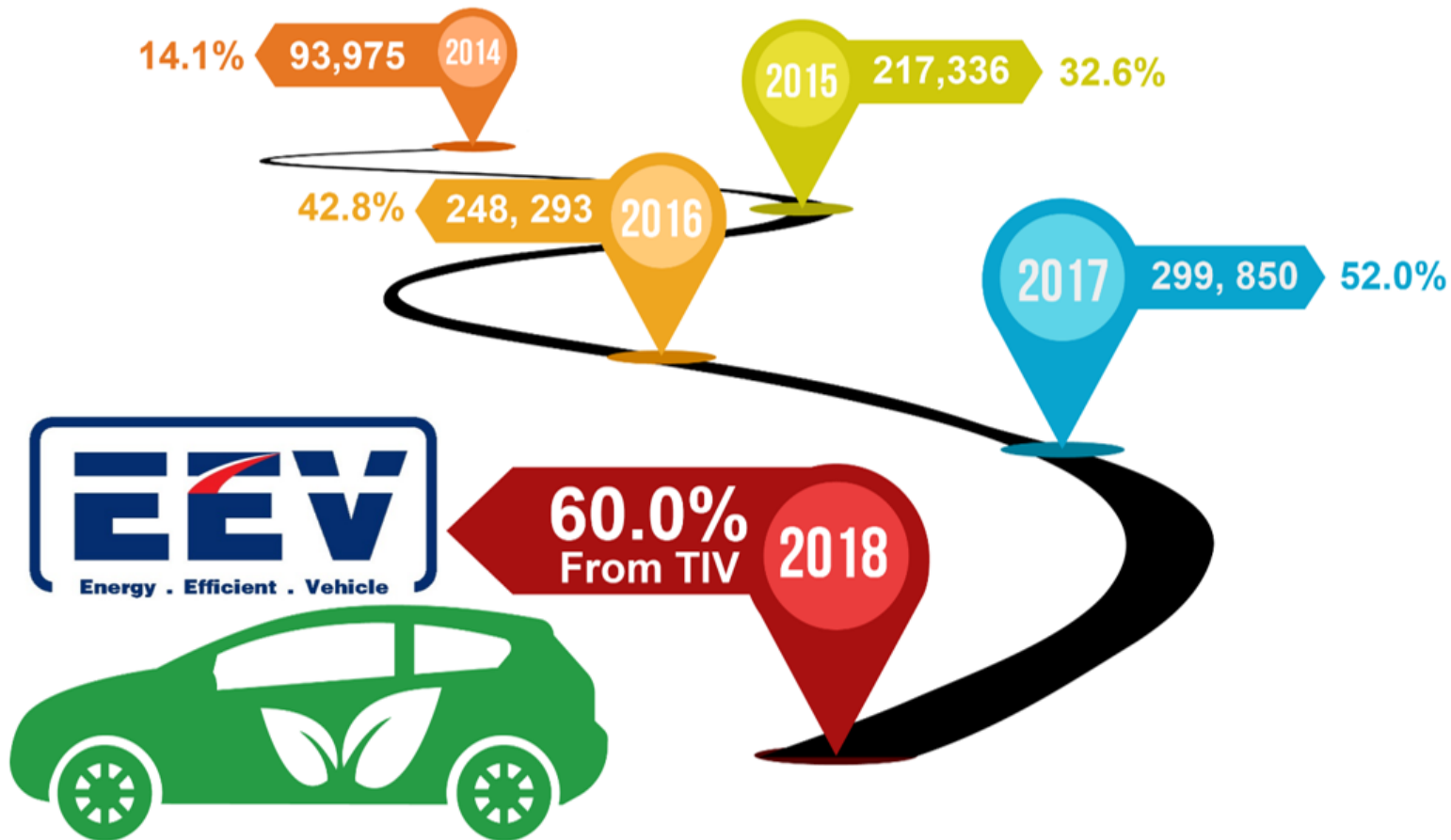
NAP 2014

The second review of NAP was introduced in 2014 which focused on development of green technology, human capital, market expansion and the improvement of the domestic automotive industry ecosystem



- The NAP 2014 promotes Energy Efficient Vehicles (EEV) and has set aims for Malaysia to be the EEV hub by year 2020;
- The EEV is defined as vehicles that meet a set of define specification in terms of carbon emission level and fuel consumption (l/100km). EEV includes hybrid, EV and alternatively fuelled vehicles e.g. CNG, LPG, Biodiesel, Ethanol, Hydrogen and Fuel Cell.





MALAYSIA INITIATIVE ON FUEL ECONOMY DEVELOPMENT

1. Collaboration
 - Clean Air Asia (CAA)
 - Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC)
 - Department of Environment (DOE)
2. Development of Malaysia Driving Cycle (MDC)
3. Establishment of NETC
4. Activities:
 - UN - GRPE
 - ASEAN-APWG
 - Japan – Expert Working Group





Activity 1:

Fuel economy baseline development and trends analysis for Malaysia

Activity 2:

Clean and Efficient vehicle policy assessment

Activity 3:

Clean and efficient policy development through national workshop

OBJECTIVE:

Develop clean and efficient vehicle policies to reduce emission and energy use from road transport sector in Malaysia



MAI collaboration with Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC)

Department of Environment (DOE)	Low Carbon Mobility Blueprint	Demand Side Management (DSM) Study
Committed partnership to encourage cooperation in preserving environment through implementation of self-regulation in the management of environment, develop human capital and pool of experts, establish voluntary eco-labelling, and conduct joint research for policy & technology roadmap formulation.	Provides input specific on energy efficient vehicles for the development of Low Carbon Mobility Blueprint.	Provides input in analysing trends of energy consumption in urban transportation



MAI has undertaken a study on Malaysia Driving Cycle (MDC) to develop a **standardized method that follows the World Wide Harmonised Light duty Test Cycle (WLTC) methodology** and aims to **establish Malaysia's own driving cycle that is globally recognised.**



This project involves participations of 27 experts from the Government, industry and academician.



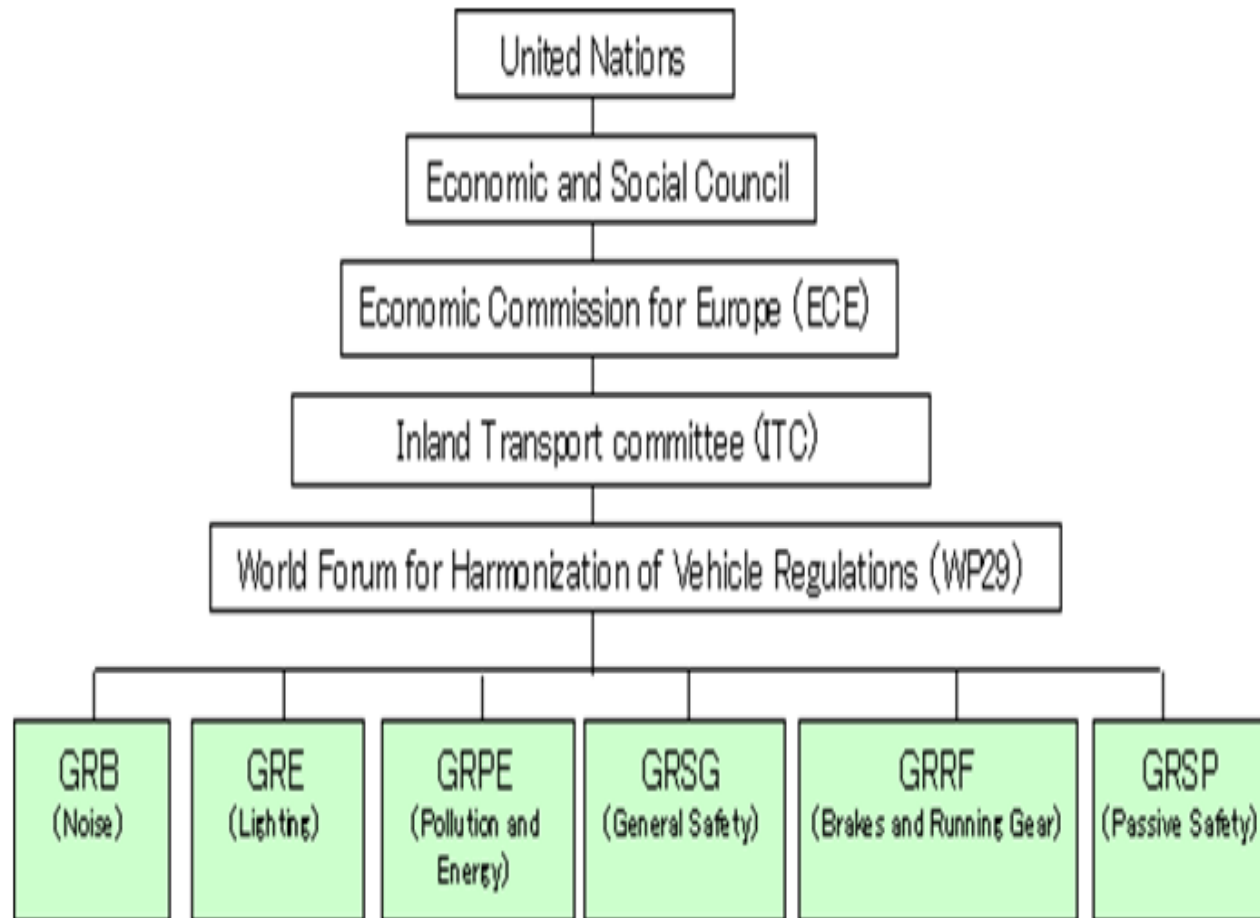


NETC is a **facility** that provides test services in measuring carbon emissions from vehicles.

It is the **most advanced testing facility** in ASEAN for Energy Efficient Vehicle (EEV) certification with emission measurements up to Euro 6D.

ITEM	SPECIFICATION
Regulation to be applied	Light duty gasoline vehicle emission Euro 6D, WLTP
Vehicle to be tested	Light duty vehicle 2WD, 4WD
Vehicle wheel base	1800 ~ 3400mm
Engine to be tested	Spark Ignition (SI) Incl. Gasoline Direct Injection (GDI)
Fuel type	Gasoline, CNG, LPG
Maximum power	155 kW (207 hp)
Maximum axial load	2,500 kg
Room temperature	-7 °C ~ +60 °C
Room humidity	25% ~ 75% (20°C ~ 30°C)
Solar simulation System	1200 W/m ²



ECONOMIC COMMISSION FOR EUROPE

The **working party on Pollution and Energy (GRPE)** is the subsidiary body under World Forum for Harmonisation of Vehicle Regulations (WP.29). This group of experts conducts research and analysis to develop emission and energy requirements for vehicles.

MAI actively participates in the working group and intends to present our research, initiatives and outcomes through the global platform.





MAI collaborates with Japan Automobile Standards Internationalization Center (JASIC) to enhance and develop Malaysia local experts by leveraging on JASIC expertise in constructing the WG that will follow WP29 framework.

MAI also strategically collaborate with JASIC on ASEAN Mutual Recognition Agreement (MRA) technical guideline through Automotive Product Working Group (APWG) in minimizing technical barrier to trade.





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