MALAYSIA INITIATIVE ON FUEL ECONOMY DEVELOPMENT
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 MALASIA 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
PENYELESAARAN POLISI

POLICY FORMULATION & INDUSTRY RESEARCH
HUMAN CAPITAL DEVELOPMENT
THINK TANK
INDUSTRY STAKEHOLDER INTERMEDIARY

PENGOLAHAN POLISI & PENYELIDIKAN INDUSTRI
PENMBANGUNAN MODAL INSAN
PEMILIK STRATEGIK
PENJANGKAUAN INDUSTRI

GOVERNMENT BODIES
HUMAN CAPITAL
ACADEMIA

COMPONENT VENDORS
CAR MANUFACTURERS
RESEARCH & DEVELOPMENT
AFTER SALES

CONSUMERS

STRENGTHENING DOMESTIC AUTOMOTIVE INDUSTRY THROUGH POLICY FORMULATION, RESEARCH, INTERNATIONAL OUTREACH, PROGRAMME DEVELOPMENT, TALENT ENHANCEMENT & PROMOTING COMPETITIVENESS

UNDERTAKE STRATEGIC RESEARCH AND POLICY ADVICE TO THE GOVERNMENT THROUGH COMBINED EFFORTS OF THE PUBLIC AND PRIVATE STAKEHOLDERS

MOBILISE & HARNESSE COLLECTIVE EFFORTS AMONGST AUTOMOTIVE STAKEHOLDERS TO DEVELOP COMMON STRATEGIES AT THE NATIONAL AND INTERNATIONAL LEVEL & PROMOTE STRATEGIC ALLIANCES AND LINKAGES FOR TECHNOLOGY & MARKET OUTREACH

PROVIDE INDUSTRY STRATEGIC SERVICES TO THE GOVERNMENT THROUGH KINSHIP RELATIONS AND DELIVERING STRATEGIC INNOVATIONS TO THE AUTOMOTIVE INDUSTRY

PERMENKAJIAN KEPUNJANGAN TEKNOLOGI, MODAL INSAN, RANAH BEKALAN, JANGKAUAN PASARAN & IPTEK JUJUR BAGI ANSHAR & ANSHARI AUTOMOTIF

PENGUKUHAN INDUSTRI AUTOMOTIF DOMESTIK MELALUI PENYELIDIKAN, PROGRAM KINSHIP RELATIONS, PEMBANGUNAN PROGRAM, PEMBANGUNAN BAZAR & PENINGKATAN DYA SUBANG

MENGORATKAN KESAMPAHANTARAAN ANTARA UMMA ALAM & SWASTA

MENGENDALIKAN KESAMPAHANTARAAN ANTARA UMMA ALAM & SWASTA
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.
BACKGROUND OF 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.
EEV PENETRATION FROM 2014

- 2014: 14.1% of 93,975 vehicles
- 2015: 32.6% of 217,336 vehicles
- 2016: 42.8% of 248,293 vehicles
- 2017: 52.0% of 299,850 vehicles
- 2018: 60.0% of Total Industry Volume (TIV)

EEV = Energy Efficient Vehicle
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)

<table>
<thead>
<tr>
<th>Department of Environment (DOE)</th>
<th>Low Carbon Mobility Blueprint</th>
<th>Demand Side Management (DSM) Study</th>
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<tbody>
<tr>
<td>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 &amp; technology roadmap formulation.</td>
<td>Provides input specific on energy efficient vehicles for the development of Low Carbon Mobility Blueprint.</td>
<td>Provides input in analysing trends of energy consumption in urban transportation</td>
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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.

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