



# Innovating with Asia 2014

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# Innovating with Asia 2014

## Background

Focus

Perspective

Concept

The Malaysia Automotive Institute (MAI) is an agency of the Ministry of International Trade and Industry (MITI)

- We are a **think tank**, tasked with **strengthening** the Malaysian Automotive Industry
- An Intermediary between stakeholders in Malaysia's automotive community
- We **Formulate policies** & perform **research** on the industry
- We also **develop human capital** & coordinate between public and private sectors





## MAFTA

- The Malaysia-Australia Free Trade Agreement (MAFTA), which will come into force on 1st January 2013, was ceremoniously signed on the 22<sup>nd</sup> of May 2012, by the Minister of International Trade and Industry of Malaysia, Dato' Seri Mustapa Mohamed, and Minister for Trade and Competitiveness of Australia, The Honourable Dr. Craig Emerson at Mandarin Oriental Hotel, Kuala Lumpur.
- The agreement covers various trade activities which are goods and services, investment, economic and technical cooperation and intellectual property rights. The agreement among others underlines the commitment of Malaysia to eliminate its import duties progressively on 99% or 10,000 tariffs by 2020 while Australia commits to a 100% elimination of tariffs upon the agreement is enforced.

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**MAI – AUTOCRC**



- MAI signed as a member of AutoCRC and represents the automotive industry players in Malaysia. The position of MAI in AutoCRC became strong with the appointment of MAI CEO as a member of AutoCRC Board Director.
- AutoCRC, an independent company was established in 2005 to assist the Australian automotive industry to improve its global competitiveness through the development of new technologies sought by Australian and overseas vehicle producers. AutoCRC was successful in obtaining funding from the Commonwealth government for a further 5 years of research until 2017. The members of AutoCRC comprises of Australia universities, Australia Research Institution, Australia automotive companies and international participants. As of now, 32 organizations are the members of AutoCRC including MAI.

# TECHNOLOGY COLLABORATION

Background

**Focus**

Perspective

Concept

- Flexible Roll Forming
- Lightweight Glazing
- Composites Manufacturing towards 2030
- Battery Material Development towards 2030

PROCESS

- Mould Making optimisation
- Tool Wear Prediction
- Plastic Injection Optimisation

MATERIAL

PRODUCT

- Lithium Ion Battery Manufacturing
- Electric Vehicles (EV)

Automotive  
I-Cloud Initiatives

MANUFACTURING

- 3DEXPERIENCE – SwYm; CATIA; DELMIA; APRISO
- Manufacturing Operation Management (MOM)
- Manufacturing Execution System (MES)
- 3Rs Recyclability, Recoverability, Reusability

SYSTEM

AFTERMARKET

- Workshop Management System
- Total Automotive Parts Solution (TAPS)
- 4R1S

# TECHNOLOGY COLLABORATION

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Code	Research Program	Theme	Project Title	Project Description	Period (months)	Parties Involved	
						MAS	AUS
1-111	1 – Vehicle Electrification	1.1 – Breakthrough Battery	Development of Electrodes and Electrolytes for Lithium Ion Battery	A composite anode materials with compatible binder and ionic liquid-based electrolyte	36	MAI	AutoCRC UoW UTS
1-112	1 – Vehicle Electrification	1.1 – Breakthrough Battery	Battery Charge, Mechanical and Thermal Management System Development	A battery charge, mechanical and thermal management system	36	MAI	AutoCRC UoW SUT
1-113	1 – Vehicle Electrification	1.1 – Breakthrough Battery	Lithium Ion Battery Module Packaging and Testing	A battery packaging that reliable for testing	36	MAI	AutoCRC UoW UTS



**PROJECTS ++**



**15 Projects ++**

# ASEAN ECONOMIC GROWTH

Background

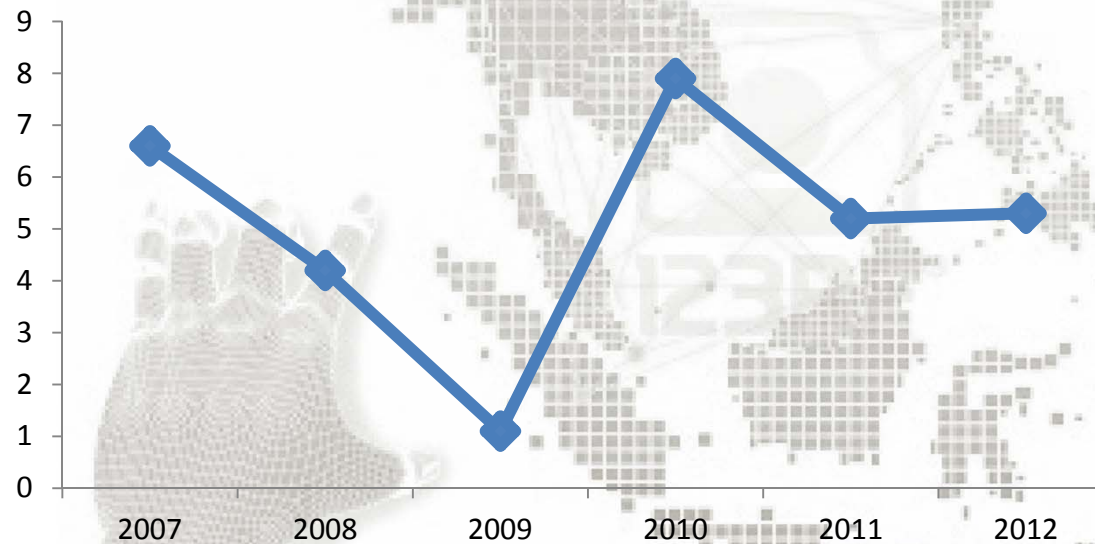
Focus

**Perspective**

Concept

ASEAN, with GDP growth of 5.3% in 2012, is forecasted to double its economic growth by 2020. The nominal GDP of the regional bloc will increase from current USD2 trillion to USD4.7 trillion. Frontier markets such as Vietnam and Myanmar are opening up, while Indonesia is expected to continue to grow.

% growth



# ASEAN POPULATION and LABOR FORCE BREAKDOWN

Background

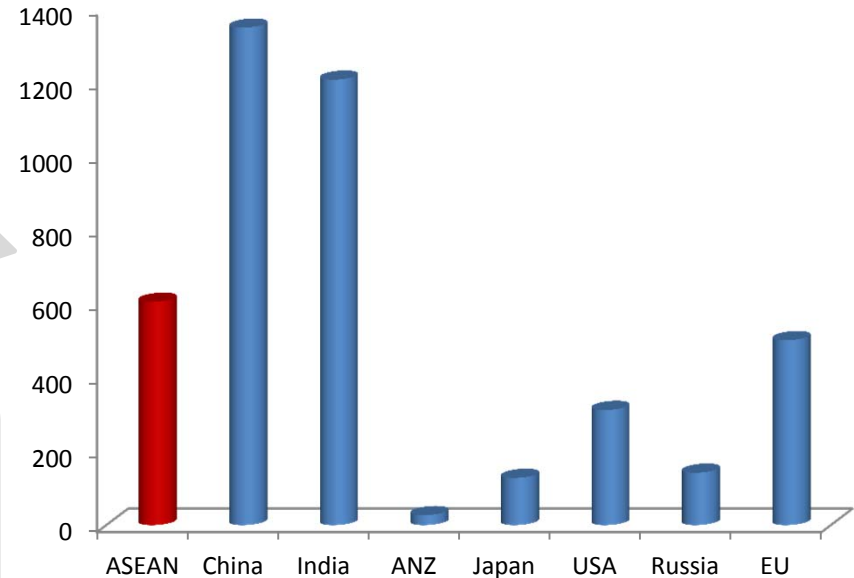
Focus

**Perspective**

Concept

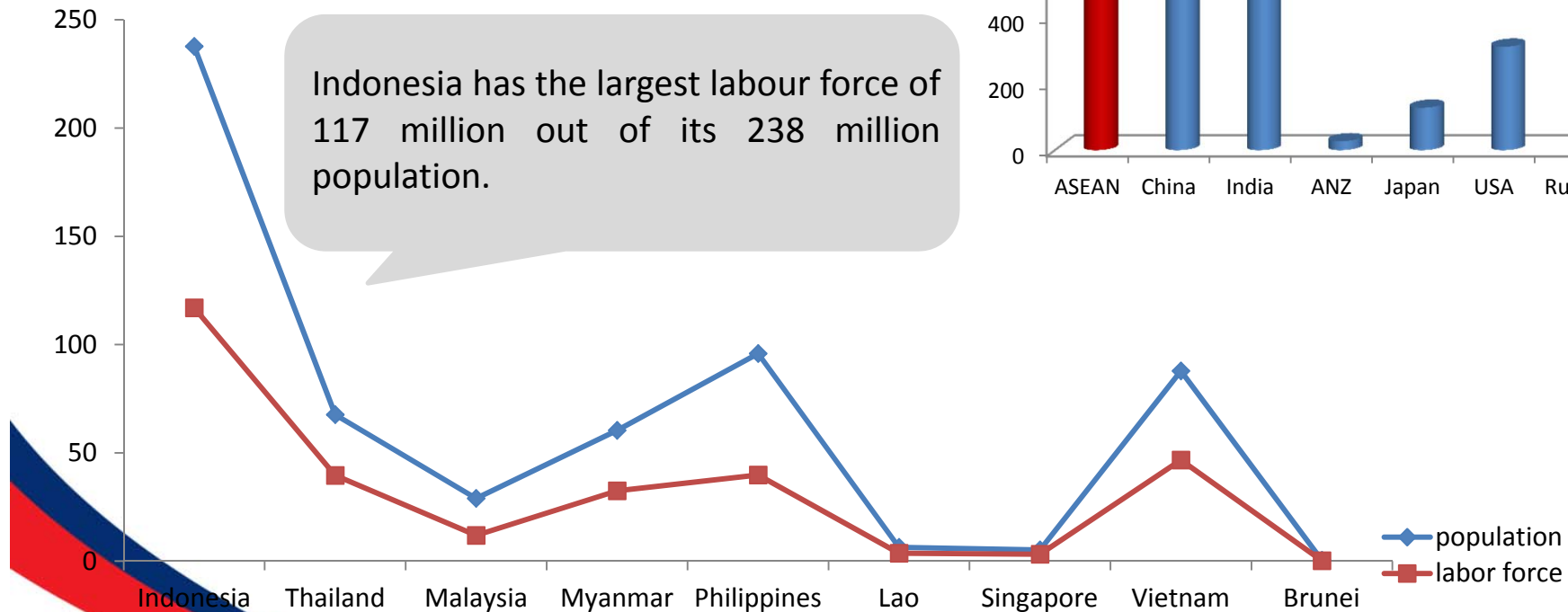
ASEAN is by far the biggest in terms of population against most of its trading partners (Japan and ANZ) and other major economies such as USA, EU and Russia

Million Person



Million Person

Indonesia has the largest labour force of 117 million out of its 238 million population.



Source: IHS, ASEAN Fact Sheet



# ASEAN ECONOMIC PARTNERSHIPS

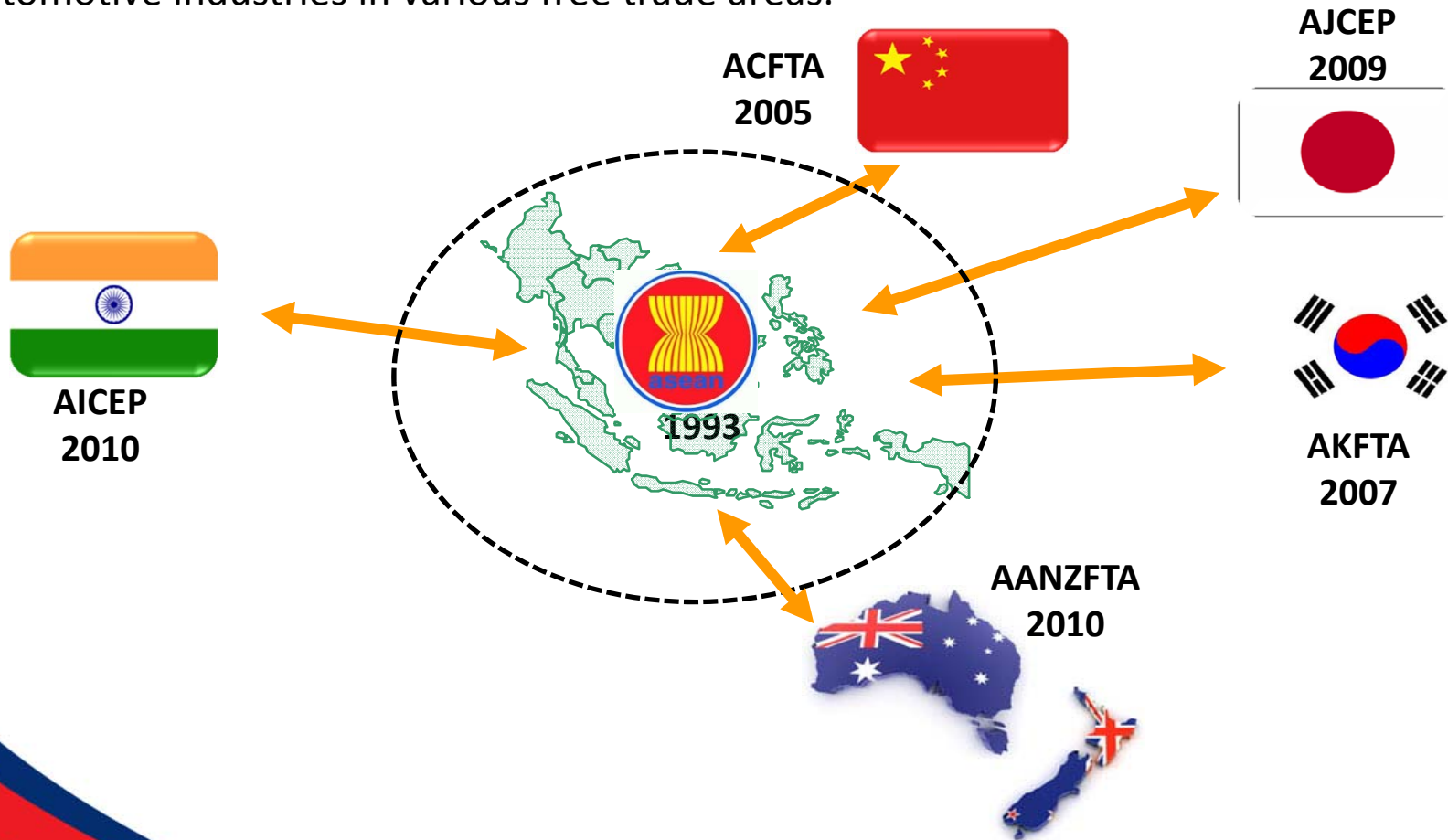
Background

Focus

**Perspective**

Concept

ASEAN is a strategic economic bloc for the automotive-related investment with growing economic partnerships bilaterally and multilaterally, creating business opportunities for automotive industries in various free trade areas.



Source: MITI

# ASEAN AUTOMOTIVE MARKET

Background

Focus

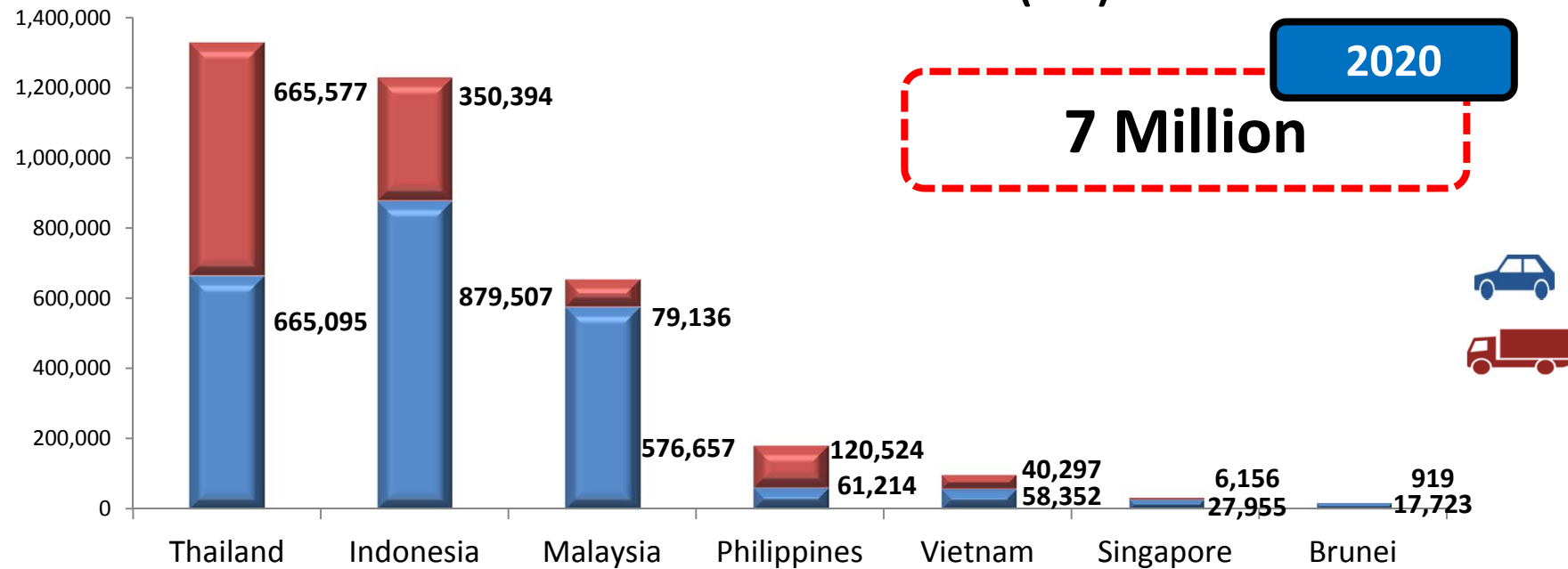
**Perspective**

Concept

ASEAN automotive market has grown by 2.2% in 2013, with combined vehicle sales of 3.54 million units.

Unit

## ASEAN TOTAL INDUSTRY VOLUME (TIV) 2013



Source: ASEAN Automotive Federation, MAA

# ASEAN AUTOMOTIVE MARKET

Background

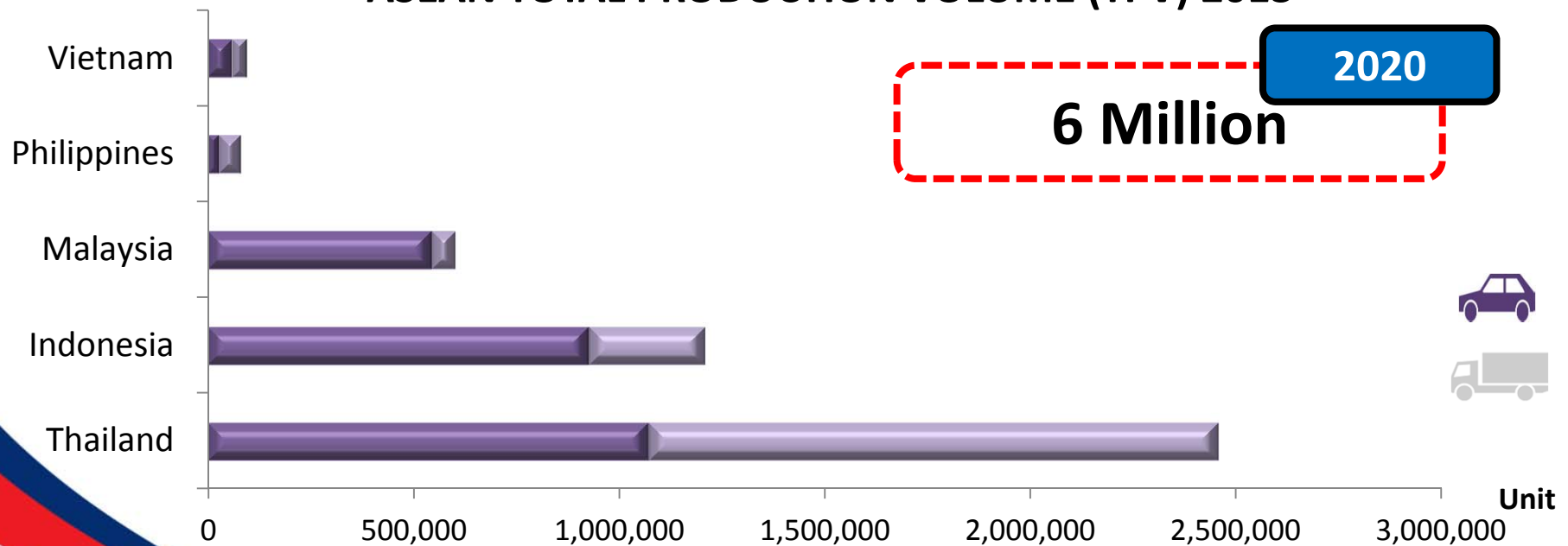
Focus

**Perspective**

Concept

The vehicles production in ASEAN has further increased to 4.43 million units in 2013, a 5% growth in comparison to 2012. Thailand's vehicle production accounted for about 55.3% of total ASEAN production, and the key segment being the commercial vehicles with 1.3 million units produced.

## ASEAN TOTAL PRODUCTION VOLUME (TPV) 2013



Source: ASEAN Automotive Federation, MAA

# NAP THRUST & ROADMAP 2014

Background

Focus

**Perspective**

Concept

Development of Automotive Authorized Treatment Facilities Framework (ATFR)



Malaysia Automotive Remanufacturing Roadmap

AFTERMARKET

ASEAN HUB FOR AUTOMOTIVE MANUFACTURING

Malaysia Automotive Technology Roadmap (MATR)

Human Capital Dev. Roadmap (HCDR)

01 Market Expansion & Outreach

03 Technology & Engineering

05 Human Capital Development

EEV

MANUFACTURING

02 Investment

04 Supply Chain Development

Malaysia Automotive Supply Chain Dev Roadmap



Safety, Security & Environment

Innovating with Asia 2014

# NAP 2014

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**Perspective**

Concept

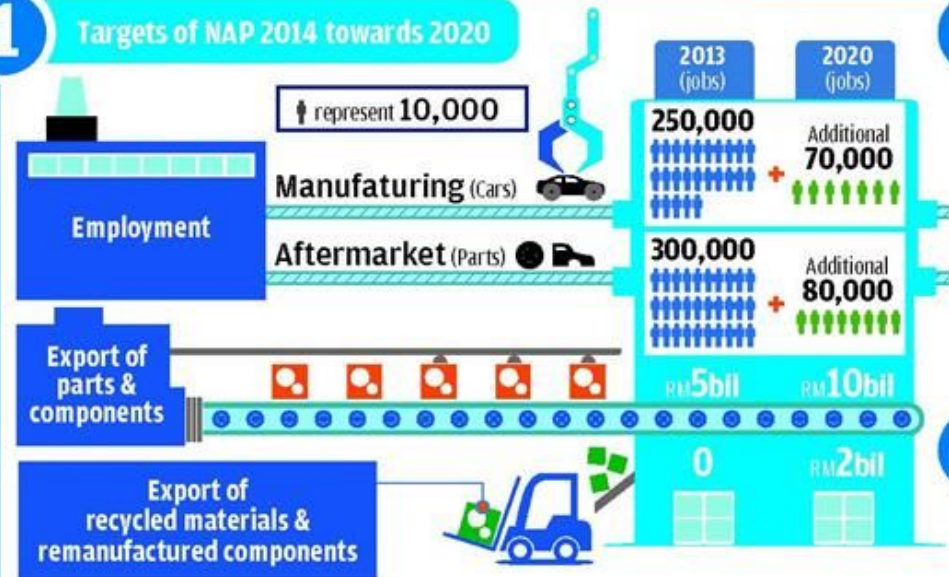


## NAP at a glance

The 2014 version of the National Automotive Policy aims at liberalising and growing the Malaysian auto industry.



### 1 Targets of NAP 2014 towards 2020



### 2 Targets of NAP 2014 towards 2020

Category	2020 (units)	2013 (units)
<b>Passenger car</b>		
Total production	1.25 million	~570,000
Total vehicle sold	1.0 million	~650,000
Exports	250,000	~20,000
<b>Commercial vehicles</b>		
Total production	100,000	~55,000
<b>Motorcycle</b>		
Total production	800,000	~430,000

### 3 Domestic & Foreign investments

Type	2010 (RM bil)	2011 (RM bil)	2012 (RM bil)	2013* (RM bil)
Domestic	1.8	2.5	4.1	2.3
Foreign	0.5	0.8	0.9	0.7
<b>Total investment</b>	<b>2.3</b>	<b>3.3</b>	<b>5.0</b>	<b>3.0</b>

\*As at Oct 2013

### 4 Total industry volume in ASEAN

Country	2012	2013
	1,080,286	<b>1,229,901</b>
	1,415,187	<b>1,216,751*</b>
	627,753	<b>652,120</b>
	156,649	<b>164,098*</b>
	80,487	<b>87,017*</b>

\*As at Nov 2013

# ENERGY EFFICIENT VEHICLE (EEV)

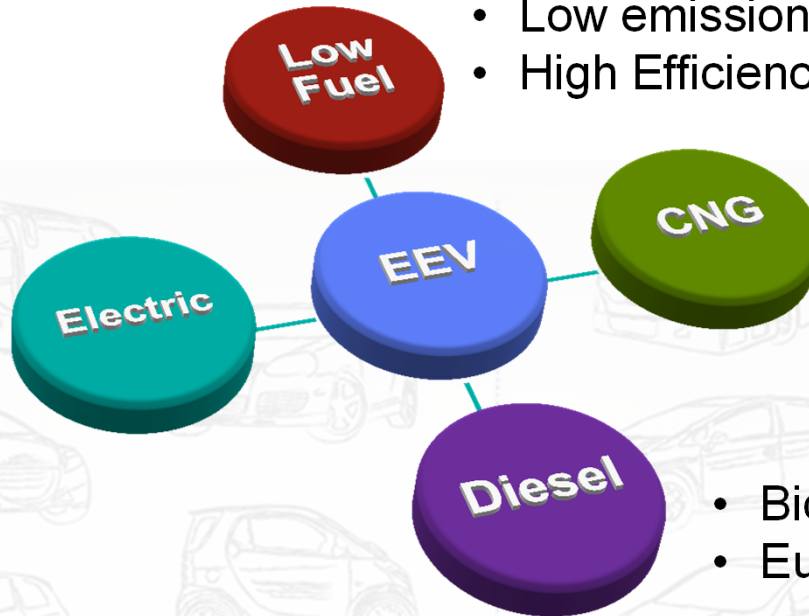
Background

Focus

**Perspective**

Concept

- EV
- PHEV
- Hybrids
- Fuel Cell



- Low Fuel Consumption
- Low emissions
- High Efficiency

- Mono-Fuel
- Bi-Fuel
- Dual-Fuel
- CNG-DI

- Bio-Diesel B5
- Euro 4

Malaysia Automotive Institute  
www.mai.org.my

ALTERNATIVE FUEL  
VEHICLES

HYBRID  
VEHICLES

BATTERY ELECTRIC  
VEHICLES

HYDROGEN & FUEL CELL  
VEHICLES

FUEL EFFICIENT & ALTERNATIVE FUEL VEHICLES

ELECTRIC POWERED VEHICLES

LOWER FUEL CONSUMPTION & LOWER CO2 EMISSION

ZERO  
EMISSION

# ELECTRIC VEHICLE (EV)

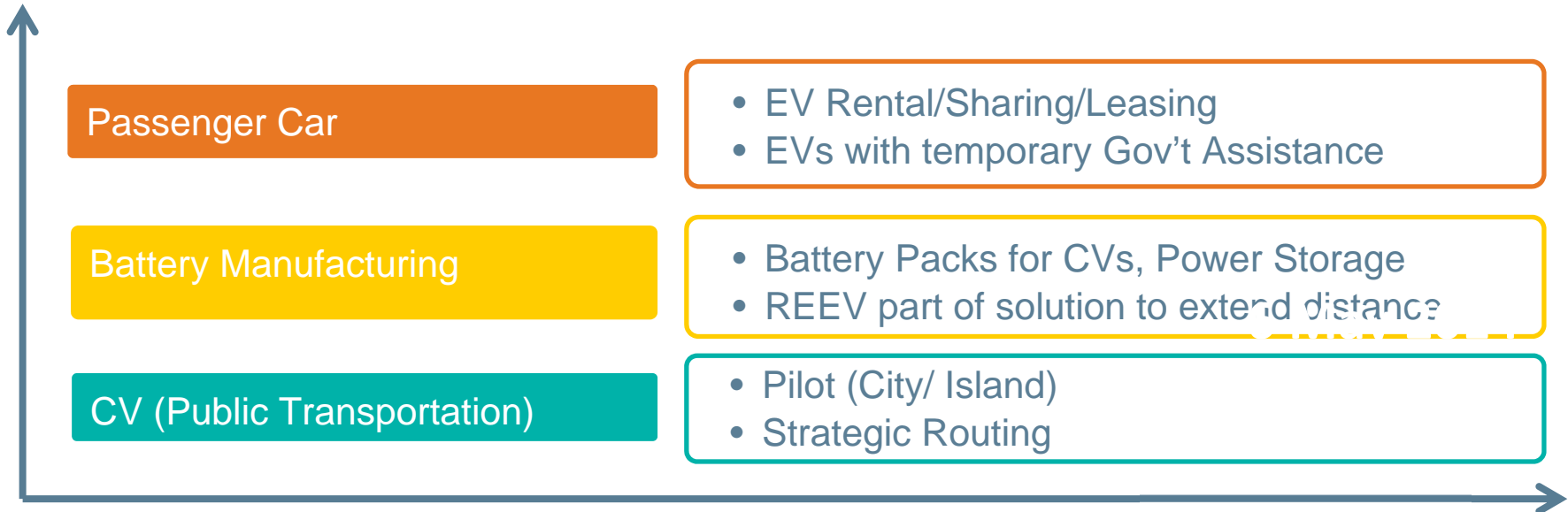
Background

Focus

**Perspective**

Concept

## EV Penetration Plan



# INNOVATING WITH ASIA 2014

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## MALAYSIA - AUSTRALIA



Why Malaysia?



Why technology development or COEs are relevant in Australia?



Company (M)



Company (A)

PRODUCTION

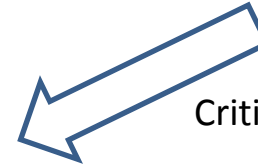
TECHNOLOGY

Competitiveness  
EEV Vision



Market  
Access

Critical Component  
Technology





# AUTOMOTIVE SUPPLIER EXCELLENCE PROGRAMME

Background

Focus

Perspective

**Concept**

Why is ASEP important to companies for both countries?



MALAYSIA - AUSTRALIA



**ASEP**



2014

75 Vendor



Company (M)



COACHING

PRODUCTION

EXPERT

NAP 2014

ASEP

LPS

ASEP Phases	No. Of Comp.	2014												2015					
		Jan	Feb	Mar	Apr	May	Jun e	July	Aug	Sep t	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun e
Pilot Project (Phase 0)	5	█	█	█	█	█	█												
ASEP-VQT Total	75																		
ASEP-VQT	Phase 1																		
	Phase 2																		
	Phase 3																		



# EXPLORATIVE COLLABORATION IN MARKET ACCESS

Background

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Perspective

**Concept**

For Malaysian and Australian automotive supplier



Explorative collaboration in market access for Malaysian and Australian automotive suppliers to bring together automotive business entities from both sides in a platform.

**Company (M)**



**Exhibitor**



**Company (A)**



**Visitors**



- Showcasing the technology, product, and process capability of automotive supplier from Malaysia and Australia
- Exploring potential business partnership between the participants (All Automotive OEM from Malaysia/Asean Region).

# EXPLORATIVE COLLABORATION IN MARKET ACCESS

Background

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**Concept**



Exhibitor



Visitors



Exhibitions



Conferences & Seminars



Networking Reception



**BUSINESS MATCHING SYSTEM**

Register a profile via the web to participate in the business matching

Search for matching members and request meetings directly

Meetings are established whenever an acceptance message is received over the system

Achieve high-level business negotiations via the matching system

2 months before the event

1 month before the event

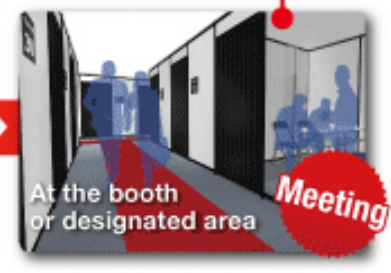
Matching Member



Appointment established



Meeting place, date and time set-up by the system



# Goal and Objective

- Showcasing the technology, product, and process capability of automotive supplier from Malaysia and Australia
- Exploring potential business partnership between the participants.
- Etc.



# Schedule and Venue

- The first collaborative activity is scheduled for September 2014 kick-off
- Shah Alam Convention Center (SACC) has been selected for the venue.

# Project Management

- MAI and AutoCRC will be coorganiser to this collaboration
- Detail of responsibility is as following:
  1. Marketing activity
  2. Hosting the event
  3. Related agency liaison



# Collaborative activity - Product & Process Capability Showcase

- Automotive suppliers from both nations will demonstrate their product and manufacturing capability to the public / attendees.
- Each participant will get an exhibition area to promote their business activity at the event site.
- Each participant will be encouraged to explore other booths to grab the networking opportunity and discover potential business partner.

# Collaborative activity - Business Matching

- Business matching is a gateway to vast business networks.
- How it works?
  - A matchmaking event is a quick and easy way to meet potential cooperation partners. People meet and greet at high speed. 20 minutes are usually enough to build connections, then the bell rings and the next talk starts.
    - Registration
      - Suppliers register and submit their own cooperation profile.
    - Promotion of published profiles
      - All published profiles will be promoted by the organisers of this event. Furthermore, all participants of the event will view the cooperation profile.
    - At the event
      - Supplier personal meeting schedule lists in chronological order for each meeting with the names of the conversation partners and number of table for each meeting



# Collaborative activity - One-on-One Meetings

- During the One-on-One Consultations with Senior Trade Officers the supplier will have the opportunity to get specific answers pertaining to their business.
- The supplier will be able to:
  - Learn about the company's sales potential between both market areas.
  - Assess challenges in the marketplace.
  - Understand how to capitalize on the MAFTA.
  - Hone in on the best market opportunities.
  - Find out how the related agency can help them identify new business partners.