



**KEBIJAKAN PENGEMBANGAN PROGRAM LOW CARBON EMISSION VEHICLE (LCEV)  
DISAMPAIKAN DALAM: FGD KESIAPAN IMPLEMENTASI MOBIL LISTRIK SEBAGAI SARANA ANGKUTAN UMUM DI  
INDONESIA**

**JAKARTA, 21 AGUSTUS 2019**

**DIREKTUR JENDERAL INDUSTRI LOGAM, MESIN, ALAT TRANSPORTASI DAN ELEKTRONIKA**



## OUTLINE

01

Kinerja Industri Otomotif

02

Peta Jalan Industri Otomotif

03

Program Low Carbon Emission Vehicle (LCEV)

04

Electrified Vehicle Sebagai Sarana Transportasi Umum

05

Dukungan Kebijakan



# 1. Indonesia Auto Market & Industry Reports



# GAMBARAN UMUM PASAR KENDARAAN BERMOTOR INDONESIA DAN ASEAN

## ASEAN AUTOMOTIVE MARKET



## ASEAN Automotive Market 2018

(3,56 Million Unit)

Indonesia : 1,151 (32%)

Thailand : 1,041 (29%)

Malaysia : 598 (17%)

## INDONESIA AUTOMOTIVE INDUSTRY OUTLOOK

POPULATION (2017)  
**264 Million People**

CAR RATIO (2017)  
**87 Car /1000 People**

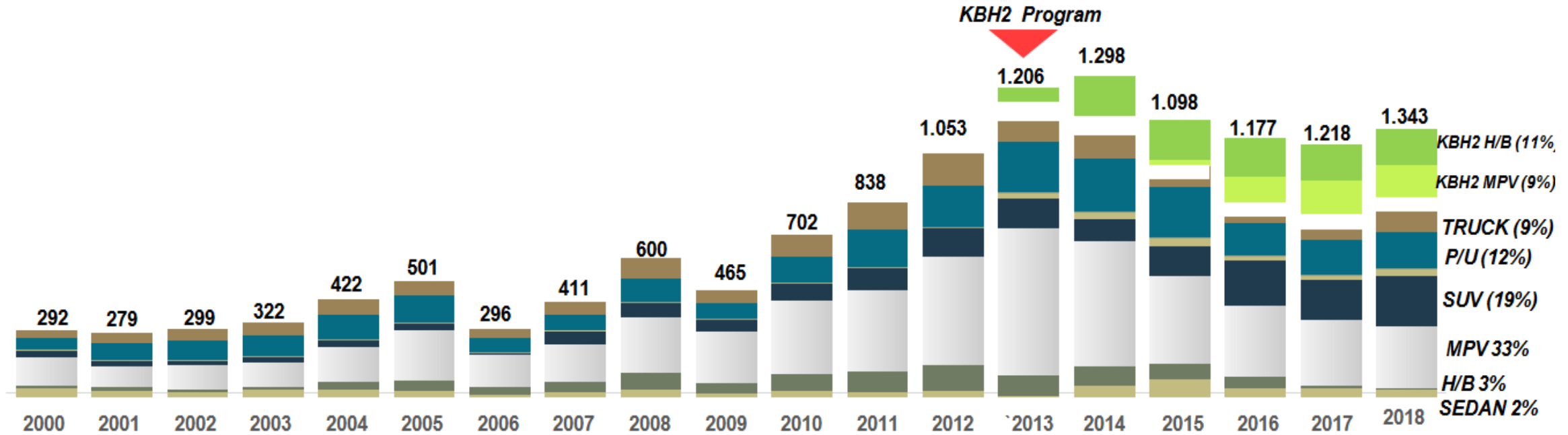
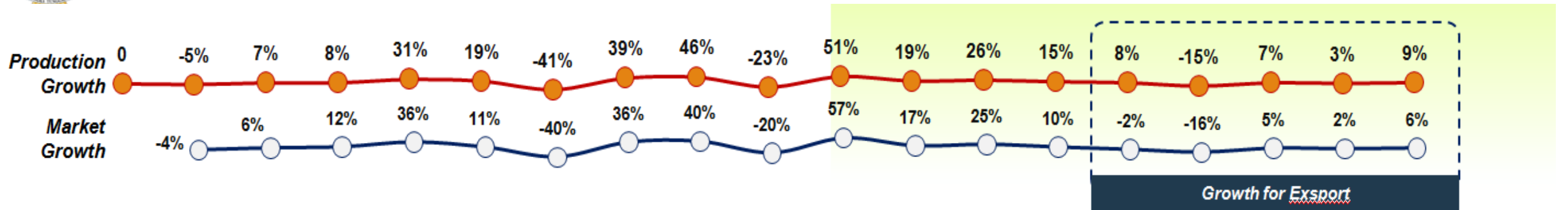
PRODUCTION (2018)  
**1.34 Million Unit**  
**13.76 Billion USD**

NUMBER OF EMPLOYEE  
**1.5 Million People**

**INVESTMENT**  
Until 2018  
**5,4 Billion USD**  
Installed Capacity  
more than 2,25 mio unit/year



# KINERJA INDUSTRI KENDARAAN BERMOTOR RODA EMPAT ATAU LEBIH

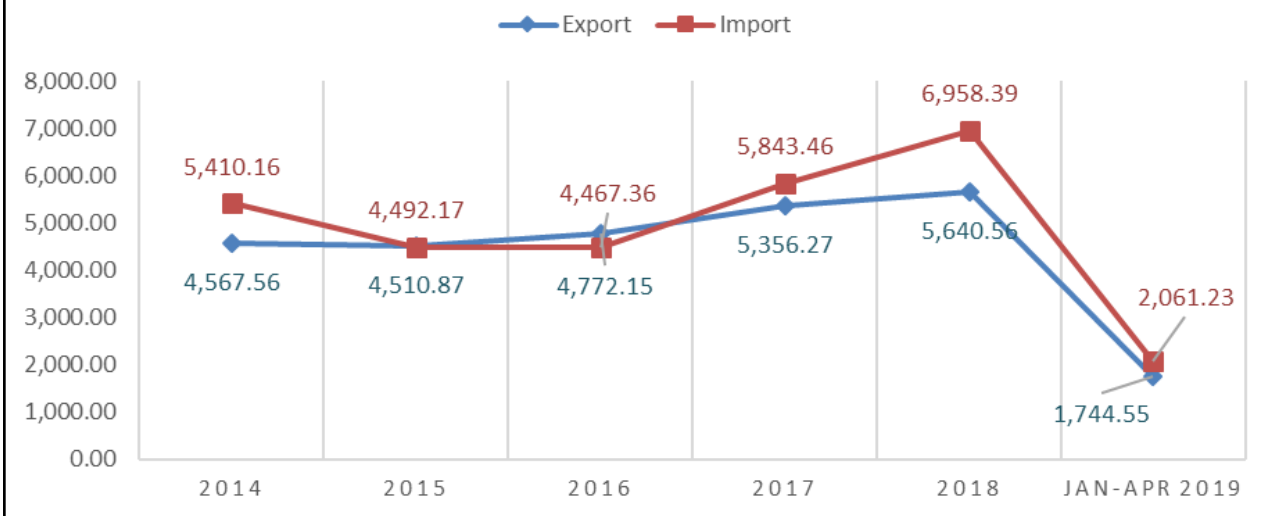


**Total Production Capacity : 2.252.131 Units**



# KINERJA EKSPOR – IMPOR KENDARAAN BERMOTOR RODA EMPAT ATAU LEBIH

## TOTAL (CBU, CKD & COMPONENT) (Million USD)

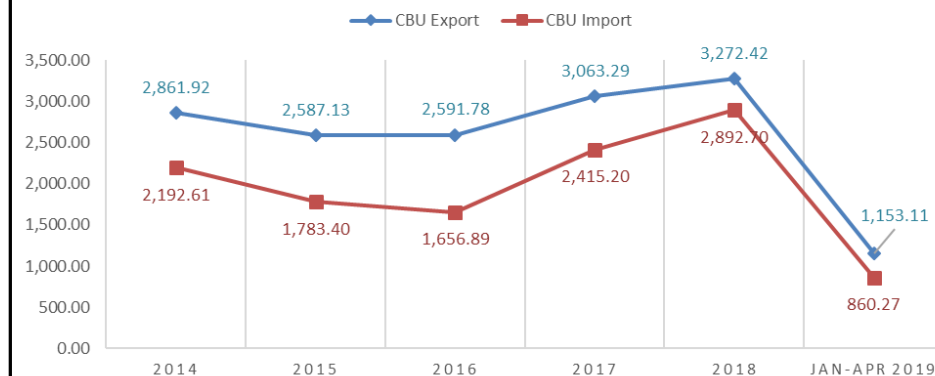


Year	2014	2015	2016	2017	2018	Jan-Apr 2019
Export	4,567.56	4,510.87	4,772.15	5,356.27	5,640.56	1,744.55
Import	5,410.16	4,492.17	4,467.36	5,843.46	6,958.39	2,061.23
Balance	-842.59	18.70	304.78	-487.19	-1,317.83	-316.68

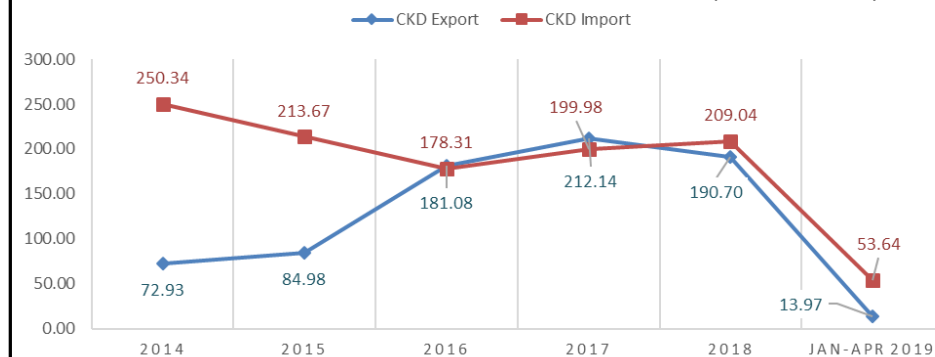
Source: BPS

Note: Indonesia telah menjadi negara net exporter kendaraan CBU, dimana pangsa pasar otomotif Indonesia di sekitar 80 negara di dunia termasuk 5 negara tujuan utama yaitu **Filipina, Saudi Arabia, Jepang, Mexico dan Vietnam**

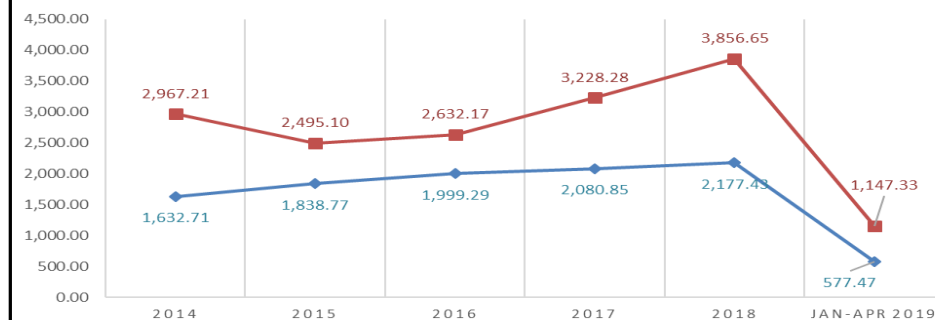
## CBU (Million USD)



## CKD (Million USD)

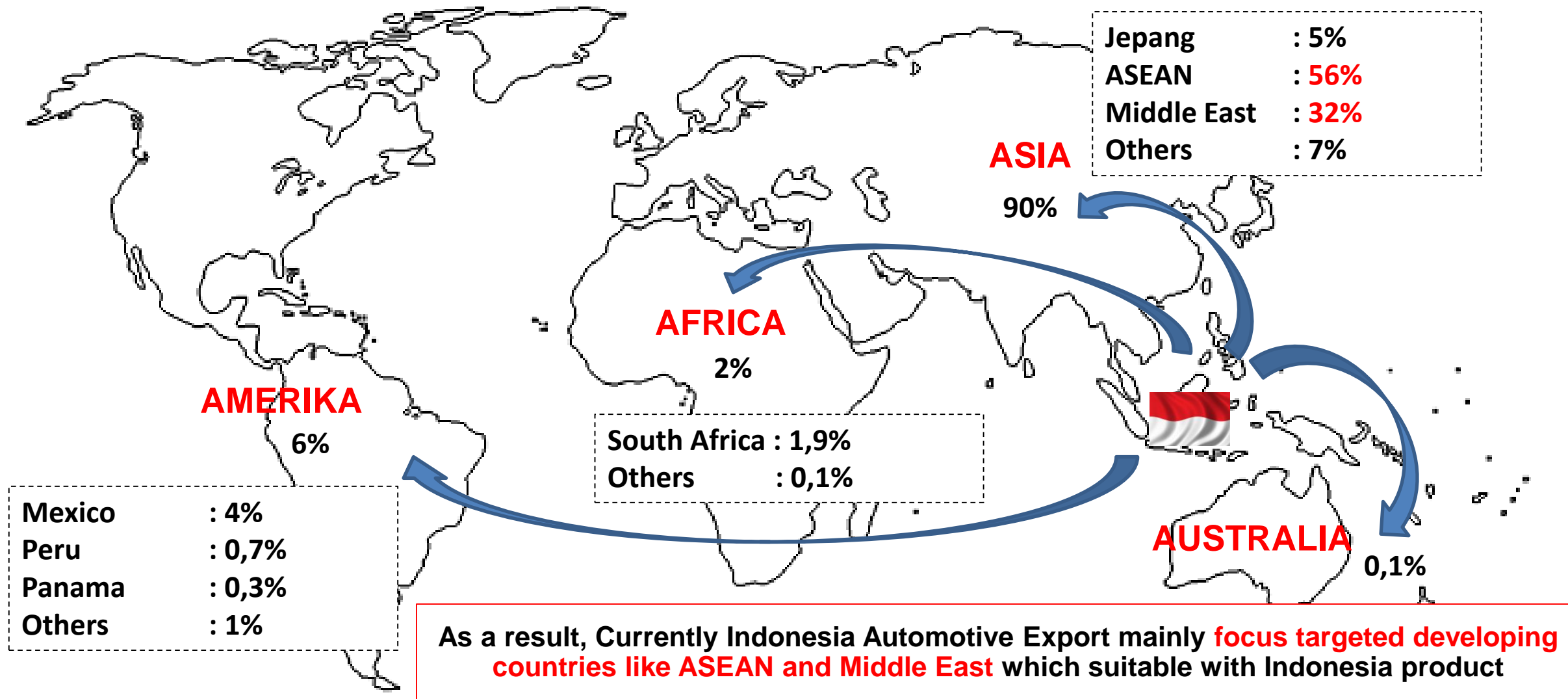


## COMPONENT (Million USD)





# EXPORT DESTINATION OVERVIEW





## 2. Indonesia Auto Industry Roadmap





# KEBIJAKAN INDUSTRI OTOMOTIF

## POLICY DIRECTION

Gov. Regulation No 14 year 2015 (National Industry Development 2015-2035)

Vision : To be major player in global automotive industry

Mission : Developing reliable, competitive and sustainable automotive industry

### 3S Strategy

#### S1 IMPROVING COMPETITIVENES

- Developing upstream industries (Steel, plastics, synthetic, rubber, metals, etc), Affordable energy cost (electricity+gas)
- Incentive : Tax Holiday, Mini Tax Holiday, dan Tax Allowance (PMK 150/2018)
- Income tax deductions up 300 percent for industry carrying R&D&D activities (PP45/2019)

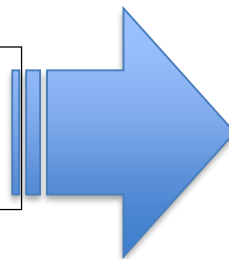
#### S2 ENCOURAGING EXPORT-ORIENTED PRODUCT DEVELOPMENT

- Import duty incentives (CKD dan IKD) (Permenperin 34/2017 Jo 5/2018)
- Harmonization of luxury tax
- Implementation Euro 4 emission standard (Permen LHK P.20/2017)
- Acceleration standard harmonization in regional (eq. ASEAN MRA 2020)

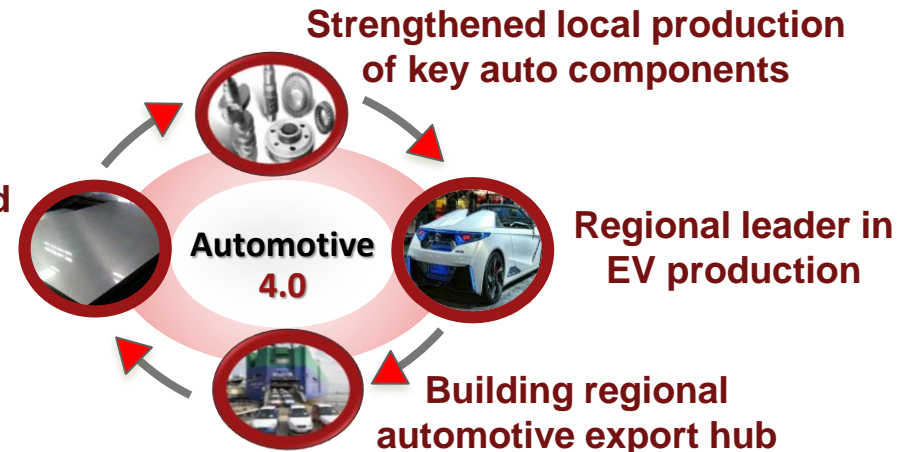
#### S3 DEVELOPING MARKET ACCESS

- Extensification of the new export market through the eceleration of the FTA agreements with countries that have large market potential :
1. Priority I : Gulf Cooperation Council, South and North Africa, and Australia
  2. Priority II : South America(Meksiko, Peru)
  3. Priority III : China (for component and part industries)

## Automotive Sector Toward 2030



Locally produced high quality raw materials for automotive

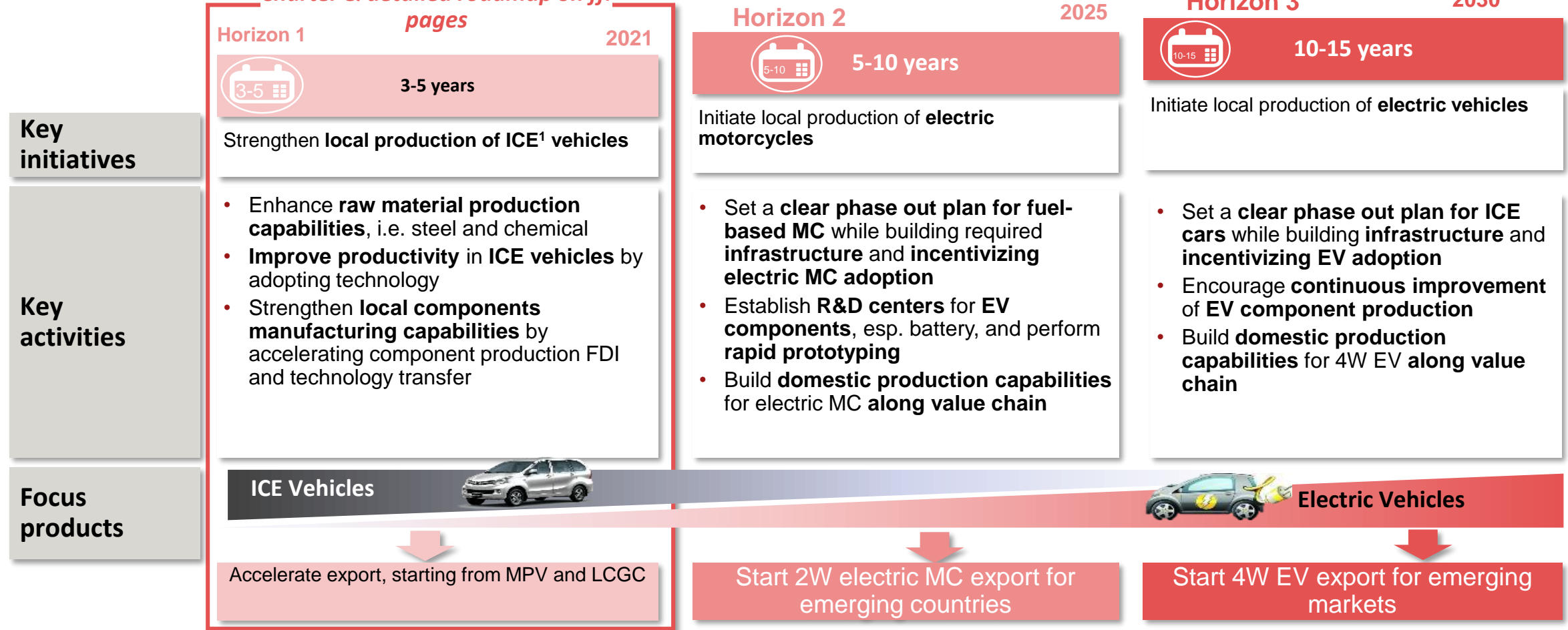




# TARGET INDUSTRI OTOMOTIF NASIONAL SEBAGAI PELAKU UTAMA EKSPOR

## Indonesia Automotive 4.0

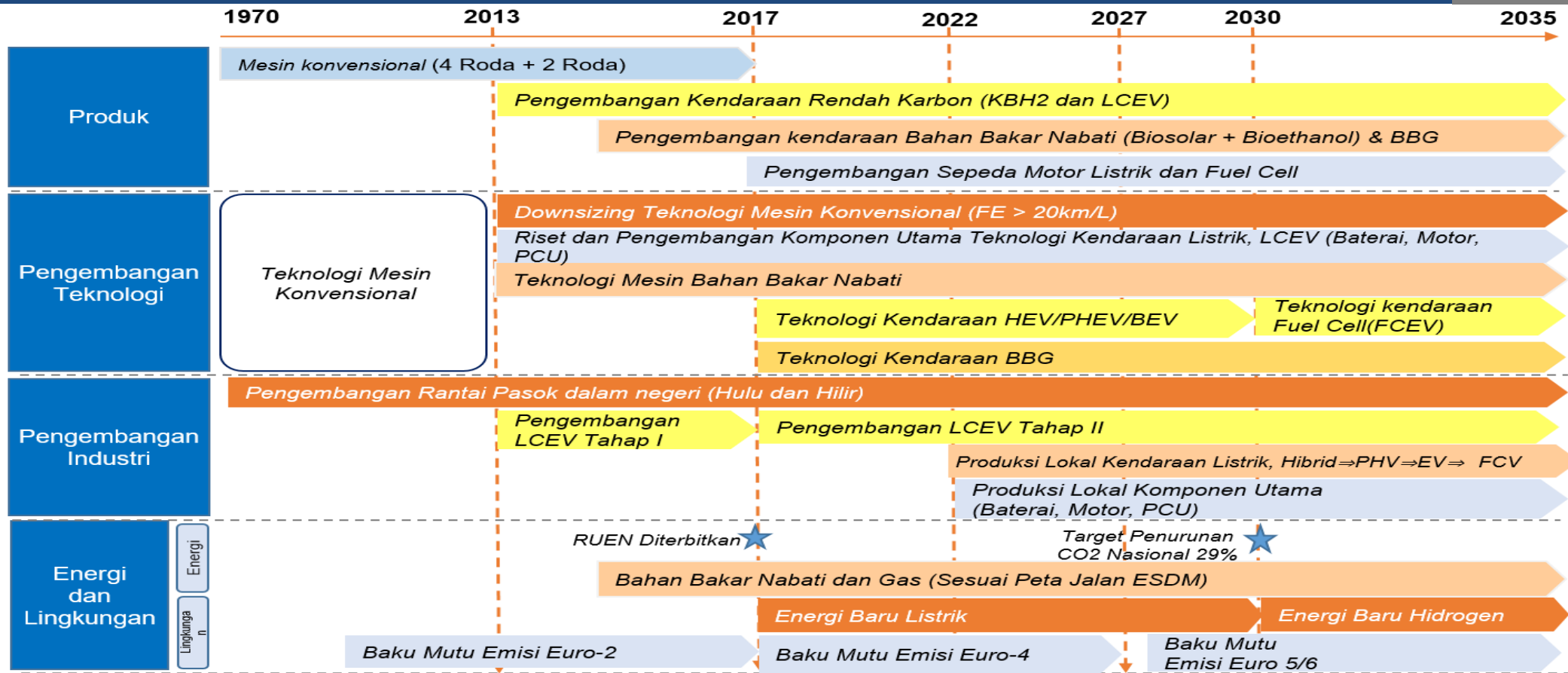
*Charter & detailed roadmap on ff. pages*



1. Internal Combustion Engine  
Source: A.T. Kearney



# PETA JALAN INDUSTRI OTOMOTIF NASIONAL



**Keterangan :** **BBG** : Bahan Bakar Gas **HEV** : Hybrid Electric Vehicle, **PHEV** : Plug-In Hybrid Electric Vehicle, **BEV** : Battery Electric Vehicle, **FCEV** : Fuel Cell Electric Vehicle **LCEV** : Low Carbon Emission Vehicle **PCU** : Power Control Unit

## Note :

1. Disusun sesuai amanat dari PP Nomor 14 Tahun 2015 Tentang RIPIN
2. Roadmap disusun salah satunya didasari dengan tindak lanjut komitmen COP21, Pemerintah berkomitmen untuk mengurangi 29% emisi gas rumah kaca pada tahun 2030

**【Summary for Indonesia Commitment】**

- Indonesia submitted the commitment at COP21 to reduce **29% CO2 emission w/o international support, and reduce 41% CO2 emission with international support until 2030**



## TARGET KUANTITATIVE

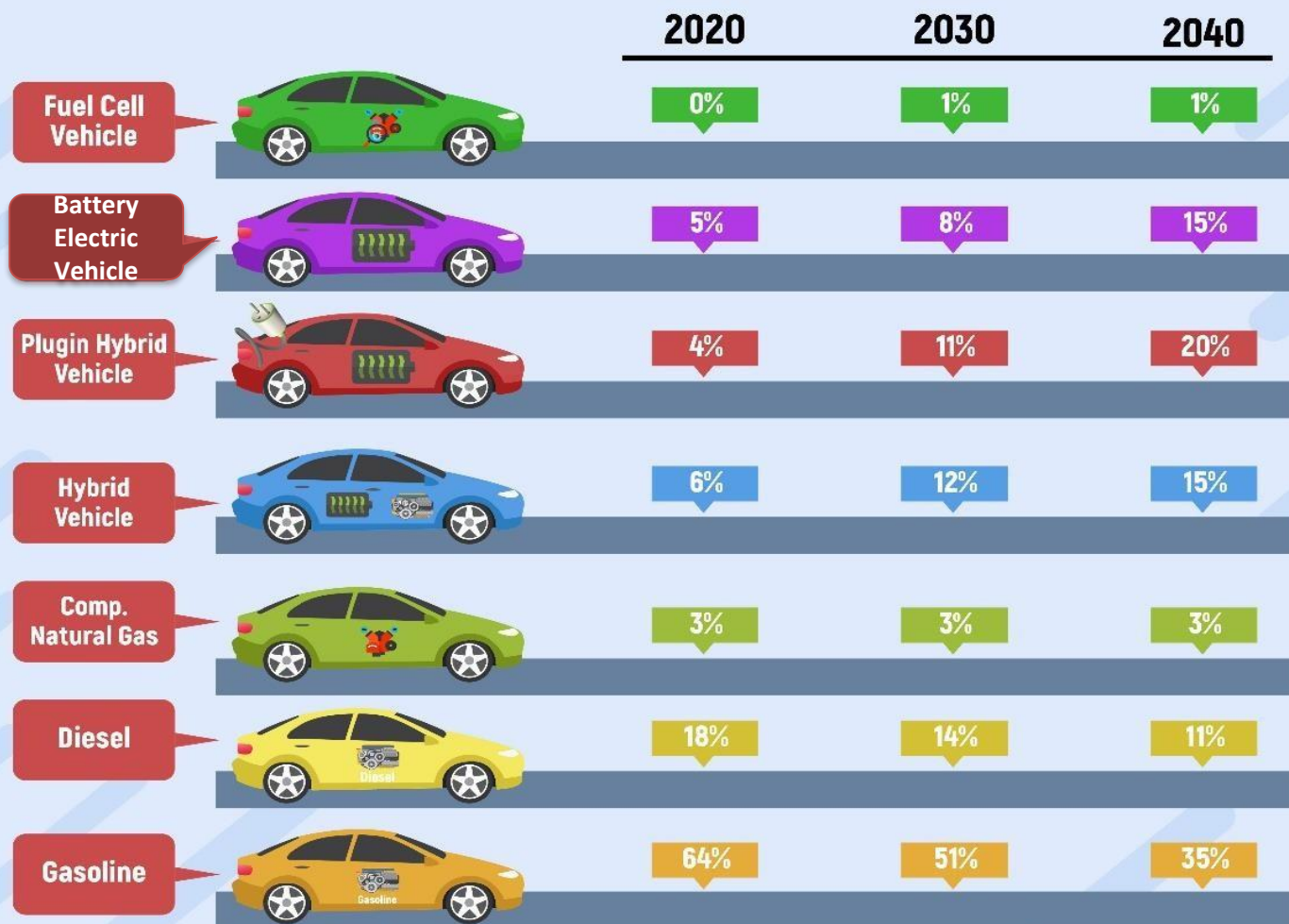
ITEM			2020	2025	2030	2035
MOTOR VEHICLE	Production	Total (Unit)	1.500.000	2.000.000	3.000.000	4.000.000
		Percentage LCEV(%)	10	20	25	30
		Percentage LCGC (%)	25	20	20	20
	Sales	Total (unit)	1.250.000	1.690.000	2.100.000	2.500.000
	Export	Total (unit)	250.000	310.000	900.000	1.500.000
MOTOR CYCLE	Production	Total (unit)	7.500.000	8.800.000	9.800.000	10.750.000
		Percentage Electric Motorcycle (%)	10	20	25	30
	Sales	Total (unit)	6.750.000	7.700.000	8.400.000	9.000.000
	Export	Total (unit)	750.000	1.100.000	1.400.000	1.750.000



### 3. Program LCEV



## PROFIL PENJUALAN KENDARAAN BERMOTOR TAHUN 2020 - 2040

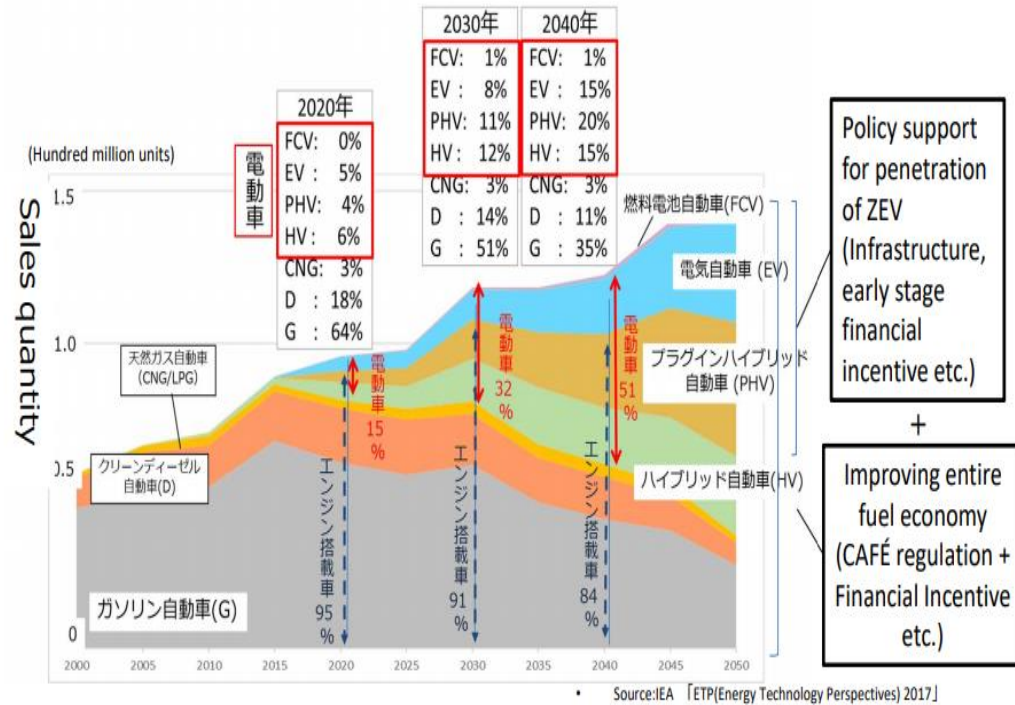


Sumber : IEA [ETP(Energy Technology Perspectives) 2017]





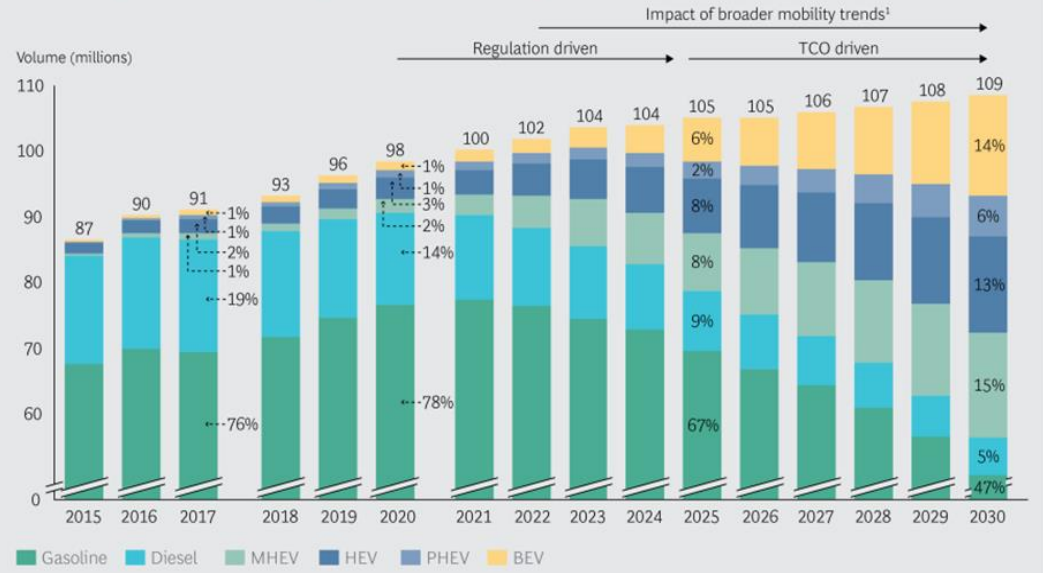
# PROYEKSI PENJUALAN KENDARAAN BERMOTOR GLOBAL



Policy support for penetration of ZEV (Infrastructure, early stage financial incentive etc.)

Improving entire fuel economy (CAFÉ regulation + Financial Incentive etc.)

EXHIBIT 1 | Global Car Sales by Fuel Source Through 2030



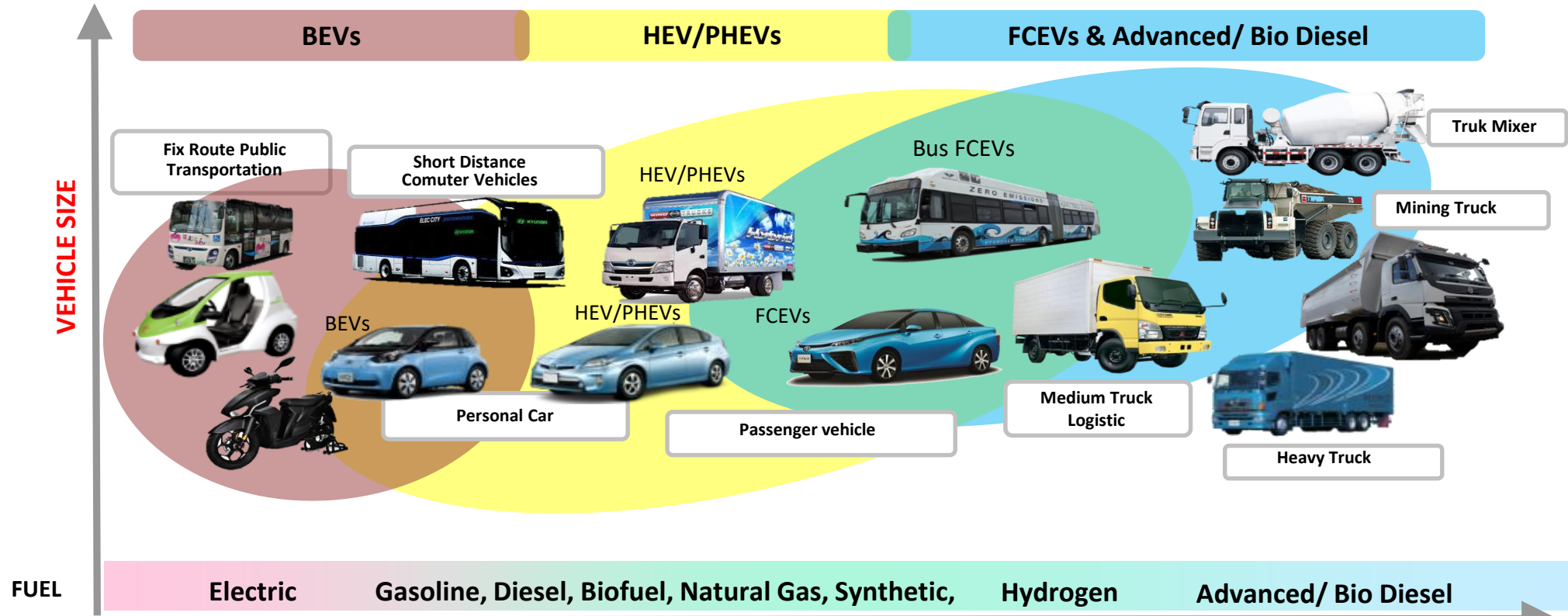
Source: BCG analysis.  
 Note: Percentages might not add to 100 because of rounding. TCO = total cost of ownership; BEV = battery electric vehicle; PHEV = plug-in hybrid electric vehicle; HEV = full hybrid electric vehicle; MHEV = mild hybrid electric vehicle.  
 1Broader mobility trends include such changes in consumer mobility behavior as car and ride sharing.

<https://www.bcg.com/en-sea/publications/2018/electric-car-tipping-point.aspx>

- FCV : Fuel Cell Vehicle
- EV : Electric Vehicle
- PHV : Plugin Hyblid Vehicle
- HV : Hybrid Vehicle
- CNG : Compressed Natural Gas
- D : Diesel
- G : Gasoline



# PROGRAM LCEV BERDASARKAN KARAKTERISTIK TEKNOLOGI KENDARAAN BERMOTOR DAN BAHAN BAKAR



Vehicle technology must be adjusted to the characteristics of mileage, vehicle size and fuel

MILEAGE

Note :

HEV : Hybrid Electric Vehicle, PHEV : Plug-In Hybrid Electric Vehicle, BEV : Battery Electric Vehicle, FCEV : Fuel Cell Electric Vehicle






- Challenges :**
- Technology (Prize, Weight, Charging Time)
  - Infrastructure
  - Environment (Recycling, Second Life Battery)
  - Sustainability





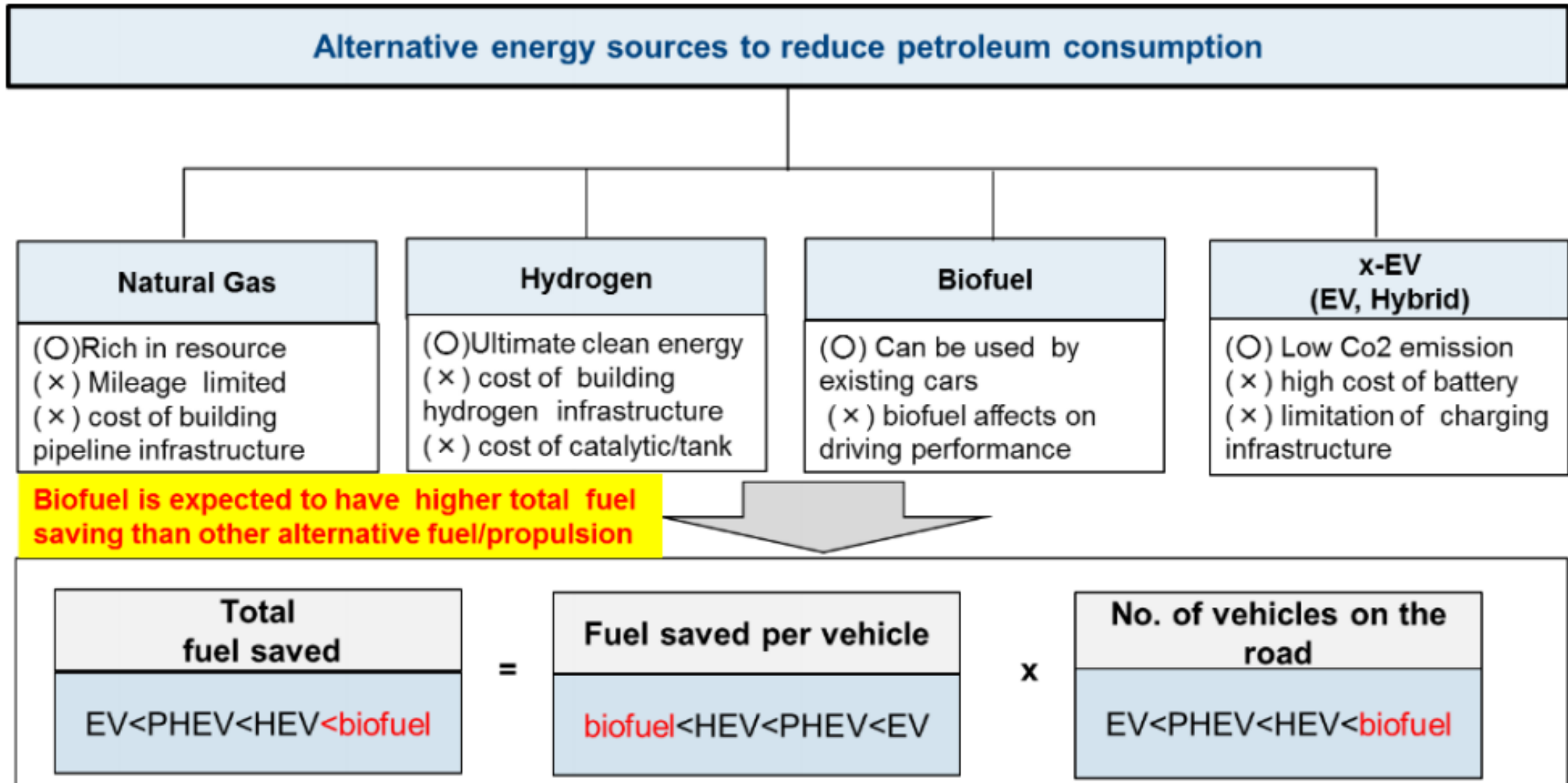
# PROGRAM LOW CARBON EMISSION VEHICLE (LCEV) DI INDONESIA

Implementation of LCEV Program is intended to support the government target on **reducing GHGs up to 29% in 2030** (Paris COP-21's), achieving Energy Mix Target that **23% of energy will be supplied by renewable in 2025, and 31% in 2030**, and encouraging the automotive industry to **manufacture motor vehicle** in accordance with **global trends**

Vehicles under LCEV Scheme					
	← Existed →	← Next: Electrified Vehicle →			← Biofuel →
	LCGC	HEV	PHEV	BEV/FCEV	FLEXY ENGINE (B100/E100)
					
<b>Overview</b>	<ul style="list-style-type: none"> <li>Low Carbon Emission Vehicle</li> </ul>	<ul style="list-style-type: none"> <li>Mostly fuel-powered, but use small battery packs to improve fuel efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Optimize battery powered, but use a fuel-powered generator (Range Extender)</li> </ul>	<ul style="list-style-type: none"> <li>Full-electric vehicles that are completely battery powered/Fuel Cell</li> </ul>	<ul style="list-style-type: none"> <li>Internal Combustion Engine designed to run on more than one fuel</li> </ul>
<b>Energy Source</b>	<ul style="list-style-type: none"> <li>Gasoline/Diesel</li> </ul>	<ul style="list-style-type: none"> <li>Gasoline/Diesel</li> </ul>	<ul style="list-style-type: none"> <li>Gasoline/Diesel</li> <li>Electricity</li> </ul>	<ul style="list-style-type: none"> <li>Electricity/Hydrogen</li> </ul>	<ul style="list-style-type: none"> <li>Gasoline or Diesel blended with Bio-ethanol or Biodiesel</li> </ul>
<b>Infrastructure Requirements</b>	<ul style="list-style-type: none"> <li>Pump station (Available)</li> </ul>	<ul style="list-style-type: none"> <li>Pump station (Available)</li> </ul>	<ul style="list-style-type: none"> <li>Pump station+Charging Station (Alternative)</li> </ul>	<ul style="list-style-type: none"> <li>Charging station/Hydrogen Station (Required)</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>



# HASIL KAJIAN JICA AND NOMURA RESEARCH INSTITUTE (NRI)



**From the study results, the utilization of biofuel in Indonesia give greatest impact in terms of fuel reduction**









## 4. Electrified Vehicle Sebagai Sarana Transportasi Umum & NEDO Project



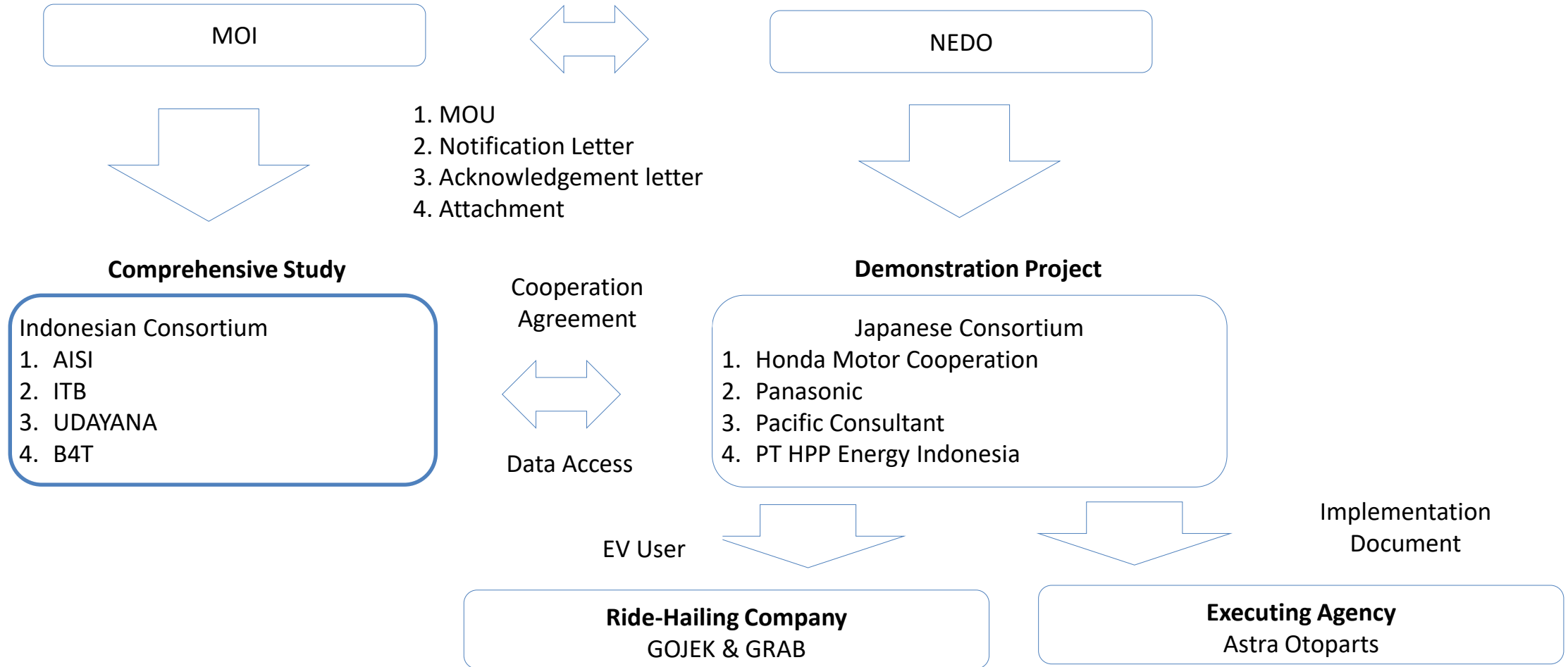
# PENGGUNAAN ELECTRIFIED VEHICLE (xEV) SEBAGAI SARANA TRANSPORTASI UMUM DAN LOGISTIK

## xEV Specification, Product, and Usage

Specification				Product	Usage
Power Source	Driving Distance*	Infrastructure Requirement			
BEV	Electricity	Short	Charging station (Additionally Required)	 <b>Small Bus Mid Bus (TBC)</b>	<ul style="list-style-type: none"> <li>• <b>On-demand bus</b> (Small bus)</li> <li>• <b>Inner city scheduled bus</b> (Mid bus) ✓ Operate by bus operating company</li> </ul>
				 <b>Small Truck</b>	<ul style="list-style-type: none"> <li>• <b>Transportation of cargo, delivery</b></li> </ul>
				 <b>2-seat Personal Mobility</b>	<ul style="list-style-type: none"> <li>• <b>Car-sharing in limited area, last one mile utilization</b> ✓ Operate by motor bike rental / car share company ✓ Use in feasibility study with government / universities</li> </ul>
				 <b>BYD &amp; TESLA</b>	<ul style="list-style-type: none"> <li>• <b>Taxi</b> ✓ Operate by exclusive taxi company (i.e. bluebird &amp; silverbird)</li> </ul>
HEV	Gasoline	Long	Gasoline station (Available)	 <b>Large Bus</b>	<ul style="list-style-type: none"> <li>• <b>Inner city scheduled bus</b> (i.e. Transjakarta) ✓ Operate by bus operating company</li> </ul>
PHEV	Gasoline, Electricity	Mid~ Long	Charging/ Gasoline station (Alternative)	 <b>Prius PHEV</b>	<ul style="list-style-type: none"> <li>• <b>Taxi</b> ✓ Operate by exclusive taxi company (i.e. Silverbird)</li> </ul>



# NEDO Project Outline

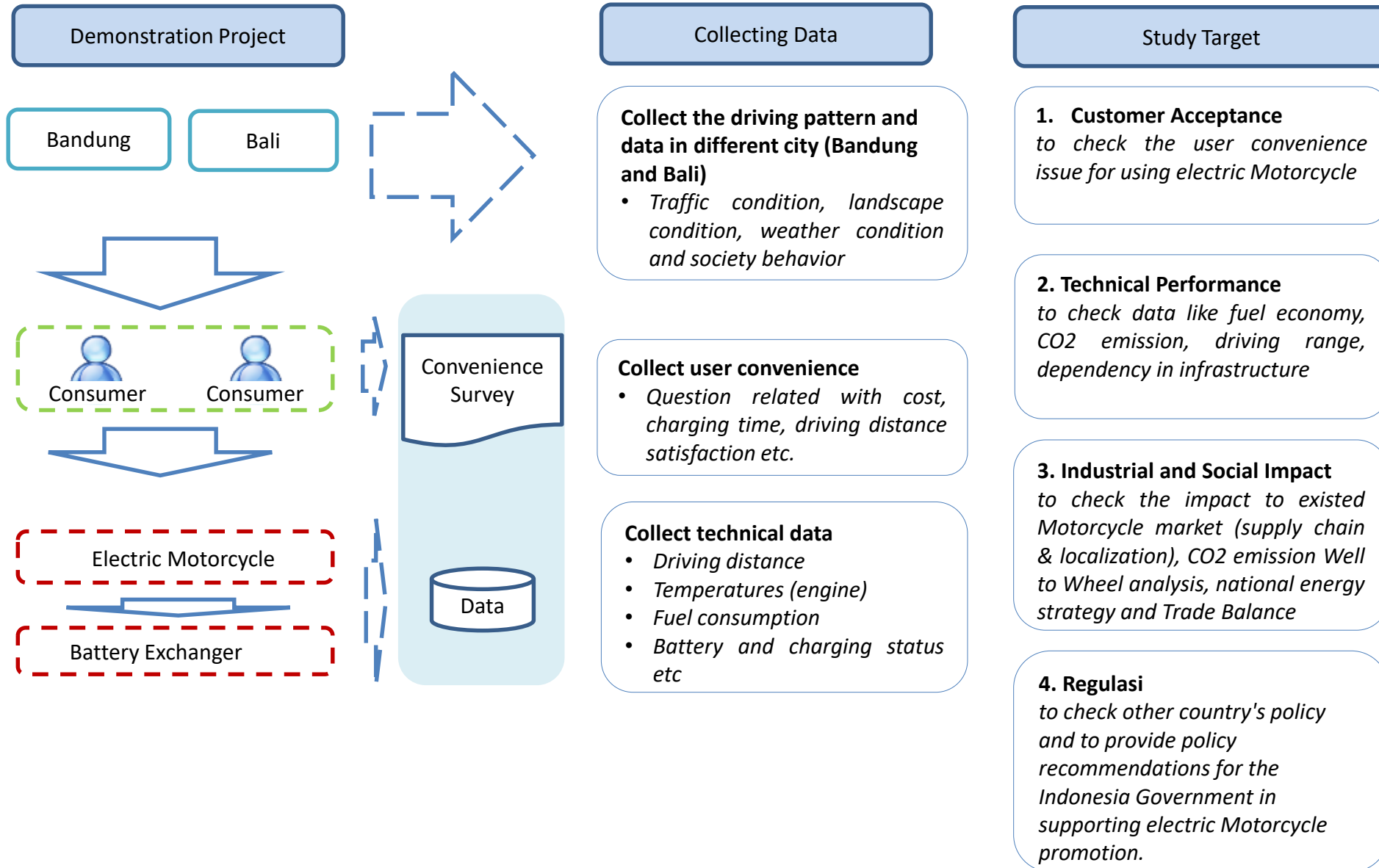


## Note

- Honda and Panasonic jointly develop the Battery Sharing System.
- HPP Energy Indonesia will run the Battery Sharing System with Astra Otoparts.
- Ride-Hailing Company promote their rider to be EV User in Bussiness to Customer Scheme

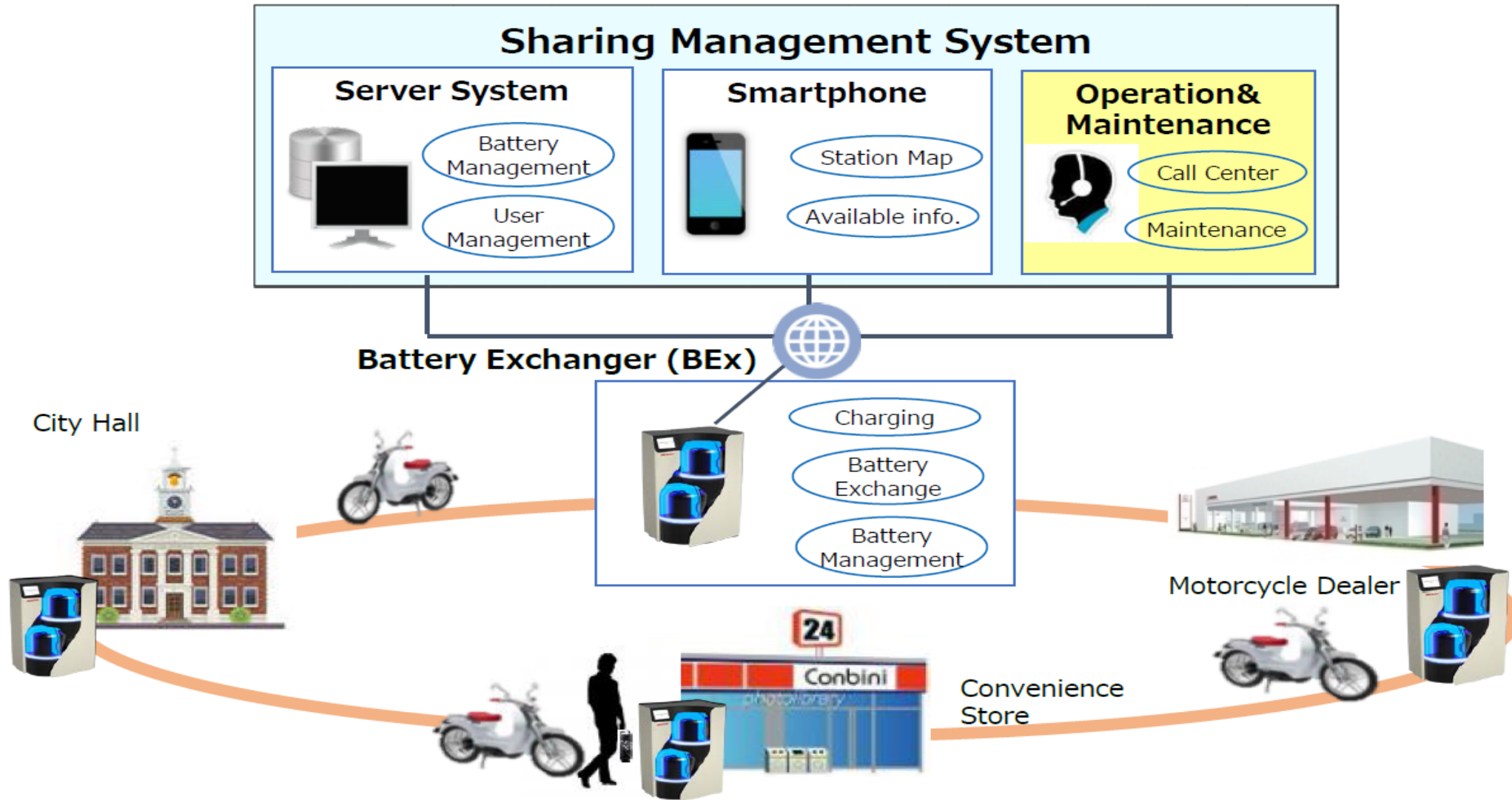


# Comprehensive Electrified Vehicle Study (NEDO)





# DEMONSTRATION PROJECT OF BATTERY SHARING SYSTEM



**SMART COMMUNITY DEMONSTRATION PROJECT FOR INDONESIA**



## 5. Dukungan Kebijakan





## Tax Holiday

(Finance Ministry Regulation No. 150/PMK.010/2018, and Indonesia Investment Coordinating Board Regulation No. 1 of 2019)

- The deduction of corporate income tax on income from main business activities amounts to 100% of the total corporate income tax payable.
- Period for deduction:
  - 5 years (investment value IDR 500 billion - 1 trillion);
  - 7 years (investment value IDR 1 - 5 trillion);
  - 10 years (investment value IDR 5 - 10 trillion);
  - 15 years (investment value IDR 15 - 30 trillion);
  - 20 years (investment value  $\geq$  IDR 30 trillion).
- After enjoying a 100% discount on corporate income tax, can be given another 50% discount for the next 2 years.

- Eligible given for pioneer industries: **manufacturing of motor vehicle and main components of motor vehicle).**

No	Indonesia Standard Industrial Classification (KBLI)	Type of Production
1	29100	Manufacturing of 4-wheeled or more electric vehicle that integrated with battery and electric motor.
2	29300	<ul style="list-style-type: none"><li>• Manufacturing of battery for 4-wheeled or more electric motor vehicle;</li><li>• Manufacturing of electric motor for 4-wheeled or more electric motor vehicle;</li><li>• Manufacturing of flexy engine that compatible with 100% biodiesel for 4-wheeled or more motor vehicle;</li><li>• Manufacturing of 2 main components minimum for engine of 4-wheeled or more motor vehicle (i.e. piston, cylinder head, cylinder block, camshaft, crankshaft, and connecting rod, that integrated with manufacturing of 4-wheeled or more motor vehicle;</li><li>• Manufacturing of electric power control unit (PCU) for 4-wheeled or more electric motor vehicle.</li></ul>
3	30912	<ul style="list-style-type: none"><li>• Manufacturing of battery for 2-wheeled or 3-wheeled electric motor vehicle;</li><li>• Manufacturing of electric motor for 4-wheeled or 3-wheeled electric motor vehicle;</li><li>• Manufacturing of electric power control unit (PCU) for 4-wheeled or 3-wheeled electric motor vehicle.</li></ul>



## DUKUNGAN KEBIJAKAN (2)

### Tax Allowance

(Government Regulation No. 9 of 2016)

- 30% of investment value.
- Reduction of corporate net income tax for 6 years, 5% each year.

#### Eligible to

1	4 or more wheel vehicle industry	29100	Public transportation for > 42 passengers and/or trucks
2	Carosery industry for 4 or more wheel vehicle industry and trailer and semi trailer industry	29200	Manufacturing of parts of car or vehicle carosery
3	Manufacturing of spare parts and accessories for 4 or more wheeled vehicles	29300	Engine and engine part, brake system, axle & propeller shaft, transmission/clutch systems, steering system, injector, water pump, oil pump, fuel pump, forging component, die casting component, stamping part, etc
4	Manufacturing of component and equipment for two or three wheeled motorcycle	30912	Engine and engine part, die casting component, brake system, transmission system

### Super Deductible Tax

(Government Regulation No. 45 of 2019)

- Domestic corporate taxpayers do new investments or expansion business in certain business sectors which are labor intensive industries and do not get the facilities as intended in the Income Tax Law can be given Income tax facilities for reduction of net income by 60% of the total investment for tangible fixed assets including land used for main business activities.
- Domestic taxpayers who organize work practice activities, apprenticeship, and or learning in order development and development of resources certain competency-based humans can be given the most gross income reduction high of 200% of the total cost incurred for work practice activities, apprenticeship, and/or learning.
- Domestic taxpayers who conduct research and development activities certain in Indonesia, can be given the highest gross income reduction of 300% of the total costs incurred for research activities and certain developments in Indonesia.



## DUKUNGAN KEBIJAKAN (4)

- ✓ **Peraturan Presiden Nomor 55 Tahun 2019 tentang Percepatan Program Kendaraan Bermotor Listrik Berbasis Baterai (Battery Electric Vehicle)**

Pasal 12 ayat (1) dan (2)

Dalam rangka percepatan pelaksanaan program KBL Berbasis Baterai, industri KBL Berbasis Baterai yang akan membangun fasilitas manufaktur KBL Berbasis Baterai di dalam negeri dapat melakukan impor dalam keadaan utuh (Completely Built-Up/ CBU) dalam jangka waktu tertentu dan jumlah tertentu sejak dimulainya pembangunan fasilitas manufaktur KBL Berbasis Baterai

Pasal 8 ayat (1) huruf b

Ketentuan penggunaan komponen dalam negeri (TKDN) untuk KBL Berbasis Baterai beroda empat atau lebih tingkat sebagai berikut:

- 1) tahun 2019-2021 : TKDN minimum sebesar 35%;
- 2) tahun 2022-2023 : TKDN minimum sebesar 40%;
- 3) tahun 2024-2029 : TKDN minimum sebesar 60%; dan
- 4) Tahun 2030 dan seterusnya: TKDN minimum sebesar 80%.

Pasal 17-21

Insentif fiskal dan non fiskal dari Pemerintah Pusat dan Pemerintah Daerah untuk mempercepat program KBL Berbasis Baterai untuk transportasi jalan



## DUKUNGAN KEBIJAKAN (3)

### ✓ Harmonisasi PPnBM melalui revisi PP 41/2013

	PP 41/2013	RPP
<b>Dasar pengenaan</b>	Kapasitas mesin	Konsumsi bahan bakar, tingkat emisi CO2
<b>Pengelompokan kapasitas mesin</b>	Diesel: 3 kelompok $\leq 1500$ , 1500-2500, >2500 cc Gasoline: 4 kelompok $\leq 1500$ , 1500-2500, 2500- 3000, >3000 cc	Diesel/Gasoline <ul style="list-style-type: none"> <li>• Kelompok <math>\leq 3000</math> cc</li> <li>• Kelompok 3000 - 4000 cc</li> <li>• Kelompok &gt; 4000 cc (super car)</li> </ul>
<b>Pengelompokan tipe kendaraan</b>	Sedan, non-sedan	Tidak membedakan sedan dan non sedan
<b>Prinsip pengenaan</b>	Semakin besar kapasitas mesin (cc) semakin tinggi tarif pajak	<ul style="list-style-type: none"> <li>• Semakin rendah emisi semakin rendah tarif pajak;</li> <li>• Semakin besar kapasitas mesin (cc) semakin tinggi tarif pajak</li> </ul>
<b>Program (insentif)</b>	KBH2	KBH2, HEV, PHEV, BEV, FCEV, dan Flexy Engine

### ✓ Dukungan lainnya

1. Kredit khusus kendaraan listrik oleh PT. BRI Persero dengan suku bunga **3,8 persen** per tahun dengan tenor **6 tahun**
2. Fasilitas tambah daya gratis **100 persen** untuk mobil listrik dan **75 persen** untuk motor listrik oleh PT. PLN Persero
3. Promo yang diberikan oleh APM berupa **unit charger** secara gratis untuk pembelian kendaraan listrik dan jaminan **asuransi gratis** selama 1 tahun
4. Permintaan dukungan dalam pemberian **skema pengenaan pajak pada kendaraan listrik** dari **Menteri Perindustrian** kepada **Gubernur DKI Jakarta** dan **Gubernur Bali**



**Kementerian  
Perindustrian**  
REPUBLIK INDONESIA

**Terima  
kasih!**

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