

# **Green Manufacturing: Way Forward**

## **Automotive Industry**

07 August 2015



# Background

## A. Structure of PH Auto Industry

- Parts Manufacturers : 272 OEMs
- Vehicle Assemblers
  - Passenger Cars : 4
  - Commercial Vehicles : 14
- Pure CBU Importers : 24

## 2014 Industry Performance

	No. of Units
Sales Volume	269,164
Production Volume	86,217

## B. Current Vehicle Fleet

- Total Vehicle Registration (2014)  
→ **3,592,482 units**

### Estimated Age of Vehicle Fleet (12 years and older)\*

= **51%** of 2012 registered vehicles  
or **~1.7 Million** vehicles

## C. Existing Regulations

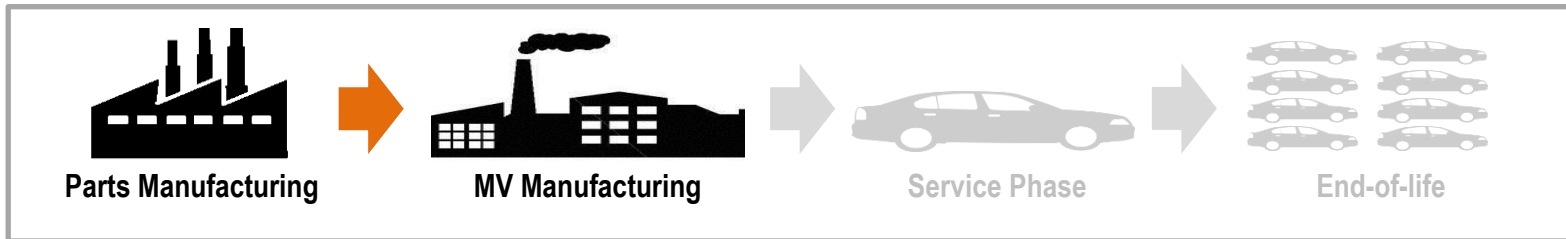
- Emission Standards
  - Clean Air Act of 1999 (**RA 8749**)
  - Implementation of Euro 4 Vehicle Emission Limits (**DENR AO No. 2015-04**)
- Currently no regulation on fuel efficiency

Source of basic data: \* Philippine Auto Manufacturing Industry Roadmap  
(November 2012)



# Current Issues

## Motor Vehicle Life Cycle



## ① Parts & Vehicle Manufacturing

### A. Current environmental practices

	Parts Manufacturers	Vehicle Manufacturers
<b>ISO 14000 series</b>	<ul style="list-style-type: none"> <li>Around <b>42%*</b> certified</li> </ul>	<ul style="list-style-type: none"> <li>ISO 14001 certified</li> </ul>
<b>Initiatives/ Programs</b>	<ul style="list-style-type: none"> <li>Minimum environmental standards compliance, tree planting, river/ coastal clean up,</li> </ul>	<ul style="list-style-type: none"> <li>Green Procurement/ Purchasing Guidelines, Green Dealership, water treatment facility, energy conservation measures, tree planting/ adopt-a-forest</li> </ul>

Source of basic data: \* Based on supplier's profile of one auto company



# Challenges & Support Needed

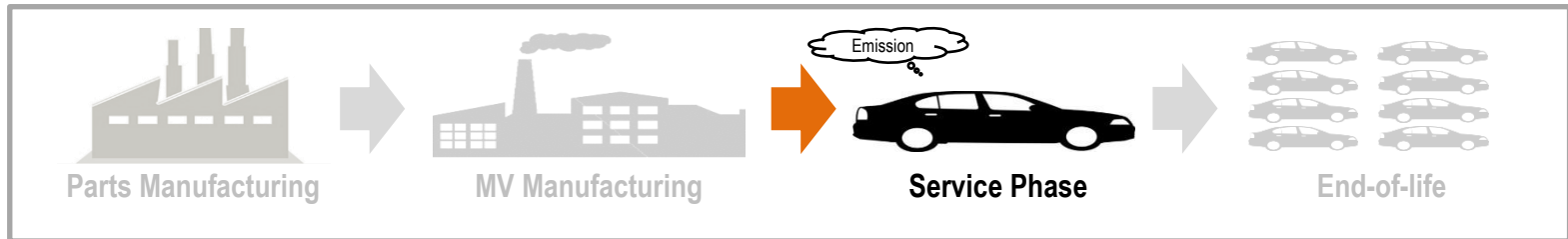
## ① Parts & Vehicle Manufacturing

Challenges	Support Needed
<ul style="list-style-type: none"><li>▪ Sustainable vehicle &amp; parts manufacturing</li></ul>	<p>Collaboration between the academe &amp; industry to identify measures on how to incorporate sustainability initiatives in the manufacturing plants:</p> <ul style="list-style-type: none"><li>➤ Shift to low-carbon technologies</li><li>➤ Use of renewable energy</li><li>➤ Reduce water consumption, etc.</li></ul>
<ul style="list-style-type: none"><li>▪ Increase number of ISO 14001 certified parts manufacturers</li></ul>	<p>Industry to encourage parts manufacturers to secure ISO certification</p>
<ul style="list-style-type: none"><li>▪ Production of “cleaner” vehicle</li><li>▪ Affordable clean vehicle</li></ul>	<p>Government to provide incentives to the manufacture, assembly, importation and use of AFVs</p>



# Current Issues

## Motor Vehicle Life Cycle



## ② Service Phase of Vehicle

A. Emission Regulation → Motor Vehicle Inspection System (MVIS)

### Vehicle Inspection

Operated by	Inspection / Testing Centres	Scope
Government	Only <b>5</b> Motor Vehicle Inspection Centre (MVIC) operational	Regular inspection of Government, For Hire and Diplomatic vehicles
Private (temporary measure)	<b>893</b> (As of Dec 2012) Private Emission Testing Center (PETC)	Simple emission test for private vehicles only

B. Enforcement of MVIS

- Not strictly implemented → instances of issuance of Certificate of MVIS Compliance with “no appearance” (no actual testing of vehicle)



# Challenges & Support Needed

## ② Service Phase of Vehicle

Challenges	Support Needed
Improve level of fuel efficiency & emission	<ul style="list-style-type: none"><li>▪ Government, in consultation with stakeholders, to develop fuel efficiency policy</li><li>▪ Government to strictly enforce the Motor Vehicle Inspection System (MVIS)</li></ul>

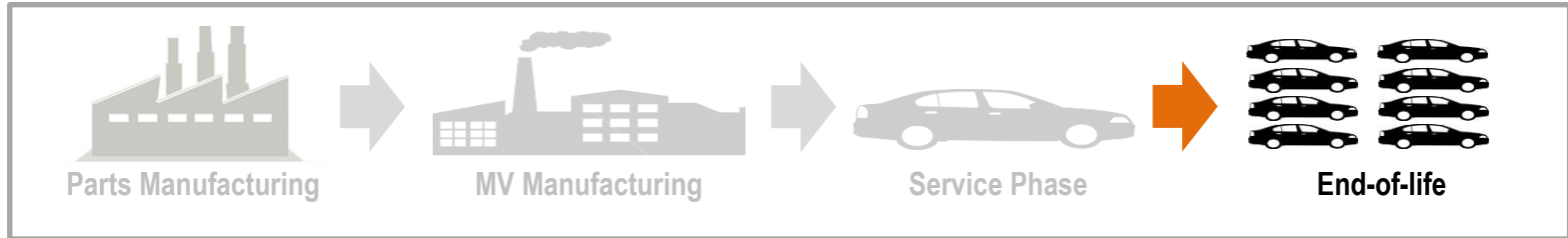
### **Status of MVIS Project**

- MVIS project structure as Build-Operate-Transfer is already approved to be undertaken as a Public-Private Partnership (PPP) Project
  - Privatization of MVIS expected to address enforcement issues
  - Opposition from certain groups on the privatization due to possible increase in inspection fees
  - Status as of July 2015 → on-going preparation of feasibility studies



# Current Issues

## Motor Vehicle Life Cycle



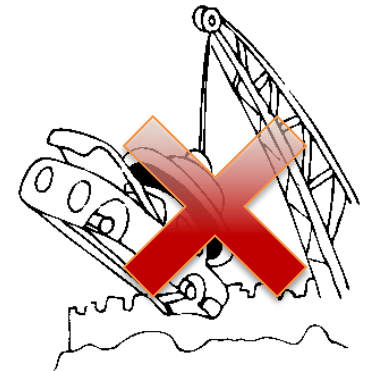
### 3 End-of-life Vehicle

#### A. Current Situation

- No existing vehicle recycling/ scrapping facility
- No vehicle end-of-life policy

#### B. Challenges

- Set-up of vehicle recycling/ scrapping facility requires huge capital investment & new technology
- Vehicle end-of-life policy may face strong opposition from vehicle owners



# Support Needed

---

## ③ End-of-life Vehicle

### C. Support Needed

- Government to implement end-of-life policy
- Government to invite investors to set-up vehicle scrapping/recycling facility
- Collaboration between government & private sector on vehicle recycling & scrapping program

Ex. Offer incentives to target group to replace old vehicles with new, fuel-efficient vehicles (public transport – old jeepneys to be replaced with e-Jeepneys)





# Future of Auto Industry

## ① Parts Manufacturing

- Under the Auto Parts Roadmap Strategies

Incentives & Reforms	▪ Fiscal incentives for local manufacturing
Competitiveness Enhancement – Specific Measure	▪ Certification of Environmental Management System (ISO 14001)

## ② Vehicle Manufacturing

**Next 10 years, industry still manufactures conventional vehicles**

**Why?**

- Market is price-driven
- High cost of owning and operating green vehicles
- Insufficient number of complementary infrastructure
- Green vehicle production is more environmentally intensive than conventional vehicle production

