# Sector-specific Approaches to Conformity Assessment: Vehicle Emissions and Noise Standards

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# **Outline**

- Identification of Issues
- Technical Regulations and Harmonization
- Conformity Assessment Procedure
- Acceptance of Conformity Assessment Results
- Conclusions

# **Identification of Issues**

# In WTO/TBT context, issues for TPKM include:

1. Highest vehicle density in the world, more than twice the density in Japan.

	TPKM	Japan	Germany	UK	France	USA
Motor vehicle density (vehicles/km²)	530	232	147	98	62	24

2004 data

#### 2. High density in urban areas causes high pollution.

Region	Kaohsuing (1)	Taipei (2)	Taichung (3)
Car density □vehicles/km²□	2,745	2,657	2,137
Motorcycle density □vehicles/km²□	7,263	3,778	3,370

# **Identification of Issues**

3. Mobile-source emissions have become the major cause of air pollution in urban areas.

CO makes up 97% of total, NOx 77%, and NMHC 34%.

Pollutant Type	CO	NMHC	NOx
Total emissions (tons)	48,823	43,666	14,602
Mobile-source emissions (tons)	47,122	14,884	11,246
Percentage of mobile-source	97□	34□	77□

(Taipei City)

4. Respiratory illnesses associated with air pollution have continued to rise.

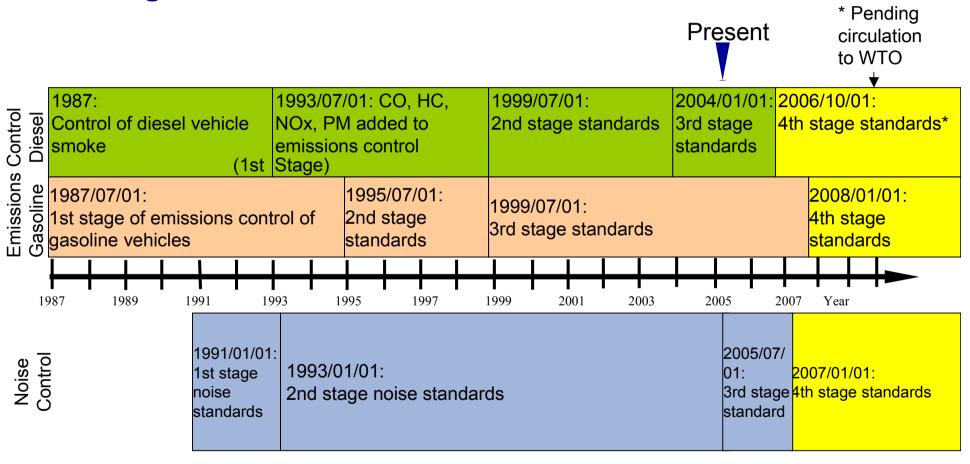
# **Identification of Issues**

- 5. Heavy reliance on imported technologies:
  - Main motor vehicle technologies come from international manufacturers, as we lack domestic technical capacity
  - Major motor vehicle technology providers include:
    - ■Toyota, Hino, Nissan, Mitsubishi, Ford, Mazda, Honda, Suzuki, Skoda, Hyundai, Isuzu, etc.
- 6. The average age of our vehicles is higher than others. Therefore, we need to consider durability of vehicles in our emissions control to address potential deterioration.
- Considering economic, trade and environmental factors, we have adopted conformity assessment procedures to reduce barriers to trade, while implementing increasingly stringent standards.

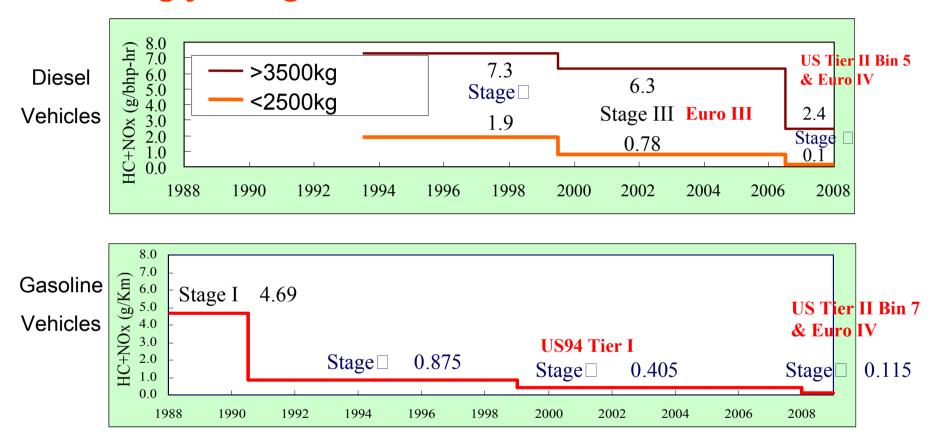
# **Development of regulations and standards**

- Before our WTO entry in 2002, our imported vehicles originated mostly from the USA. Since US vehicle emissions management system were the most comprehensive, we mainly referred to the <u>US system</u> in setting our domestic management system.
- After WTO entry, we have accepted foreign standards and certifications in line with the spirit of the <u>UNECE</u> WP.29
- We will notify WTO members of major regulatory revisions in accordance with TBT procedures.

#### **Progression of Vehicle Emissions / Noise Control**

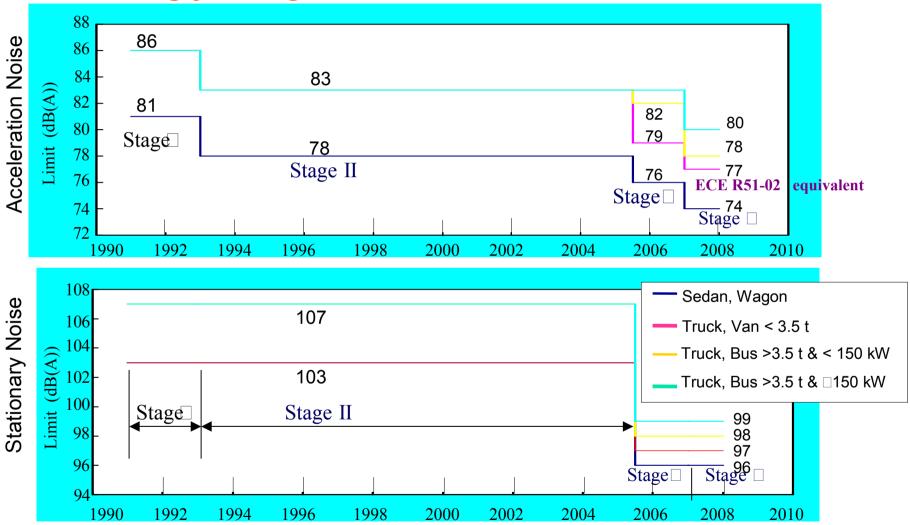


#### Increasingly stringent emissions standards and harmonization



- 1. From 1988, Stage I and II, US regulations and standards were similar to ours.
- 2. From Stage III (diesel) Stage IV (gasoline), US and EC standards were similar to ours.

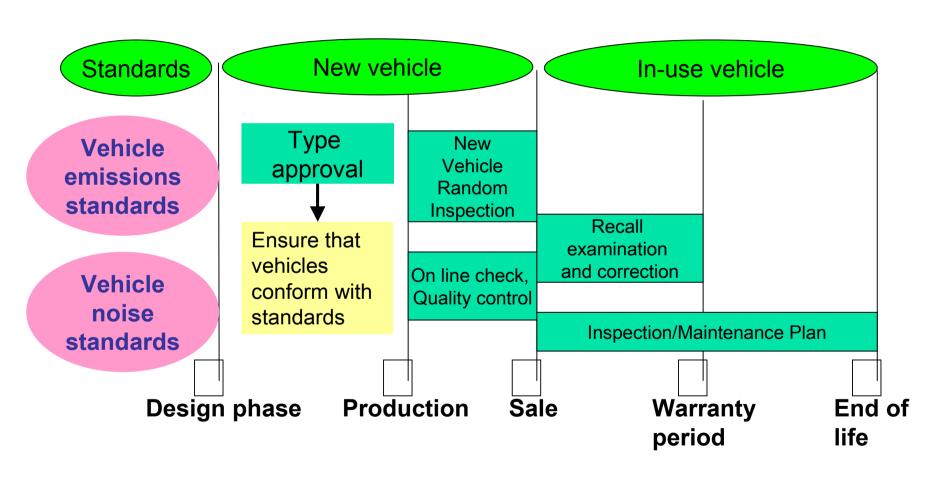
#### Increasingly stringent noise standards and harmonization



- 1. From 1991, Stage I and II noise standards were similar to Japan.
- 2. From Stage III, standards and testing methodologies were similar to UN ECE and EC.

#### **Conformity Assessment Procedure**

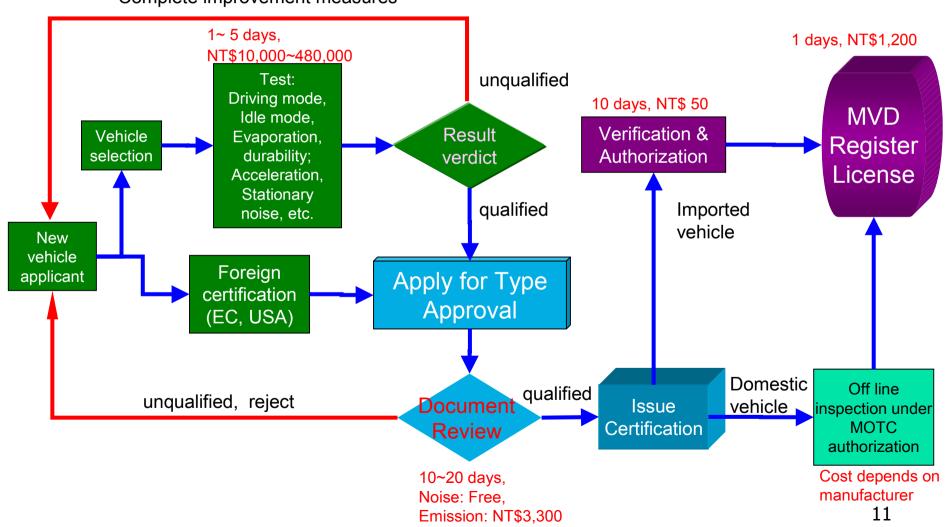
#### **Emissions / noise control within the life cycle of motor vehicles**



#### **Conformity Assessment Procedure**

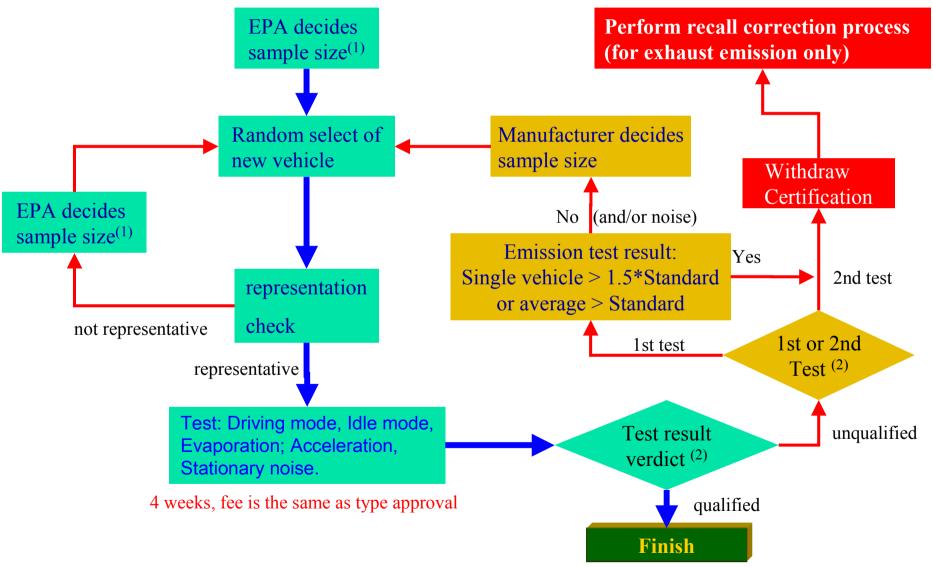
#### **Vehicle Emissions / Noise Conformity Assessment**

Complete improvement measures

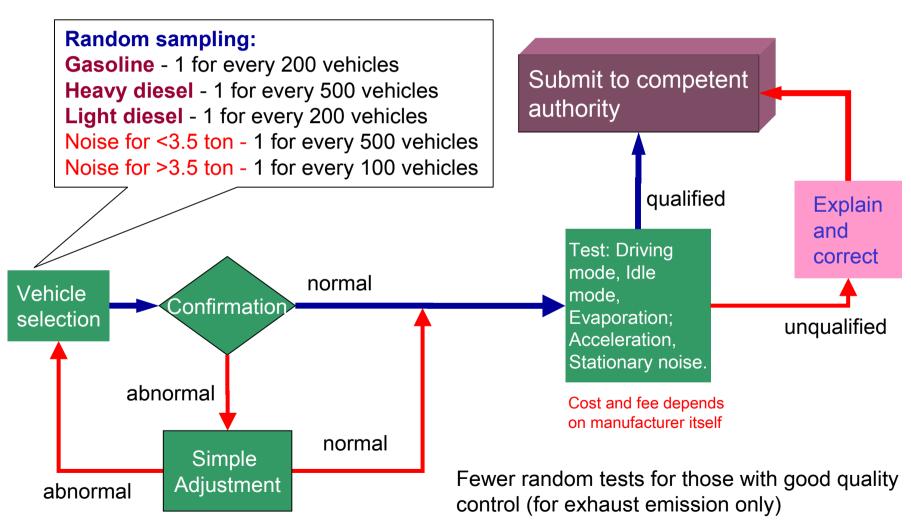


#### **Conformity Assessment Procedure**

### Random emissions / noise testing of new vehicles



# **Quality Control by Manufacturers**



# Acceptance of conformity assessment results

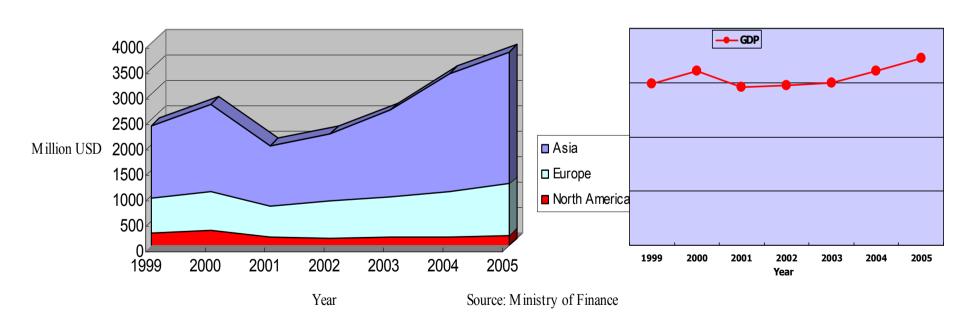
In accordance with the objectives and requirements of the TBT agreement for acceptance of conformity assessment results, we:

- Accept European emissions certification and 98/69/EC directive
  - From January 1, 2004, applicants with EC certification may apply for domestic certification of light duty vehicle with diesel engine.
  - From October 1, 2006, applicants with EC certification may apply for domestic certification of heavy duty truck with diesel engine. (pending circulation to WTO)
  - From January 1, 2008, applicants with EC certification may apply for domestic certification of light duty vehicle with gasoline engine.
- Accept European noise certification with UN ECE R51-02 or 70/157/EC directive
  - From November 5, 2003, applicants with EC certification may apply for domestic certification
- Vehicles imported from other countries and holding EC and US certification are also accepted

# **Conclusions**

Imported vehicle value has increased since our entry into WTO

# Imported value of vehicles (excluding rail vehicles) and components from various regions of the world



# **Conclusions**

- Given our high vehicle density, as well as considering environmental protection, public health and removal of non-tariff trade barriers, we are harmonizing our vehicle control standards, and will place more emphasis on assessing cost-effectiveness in the future, in order to achieve more effective management.
- With harmonization of regulations and standards, our conformity assessment of vehicle emissions and noise is consistent with international practices.
- As a member of WTO, we will continue to meet our obligation to reduce non-tariff trade barriers, and our commitments under WTO and regulatory harmonization have been achieved on schedule.

# Thank you