



Ministry of Commerce, Industry and Energy
Korean Agency for Technology and Standards

Introduction of KOREA RoHS and Preparation for REACH Implementation

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ACTION AND REACTION

Developing a sustainable approach to emerging chemical issues

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Preparation for REACH Implementation

❑ REACH Help Desk Center by Government Support

- KNCPC* & MOCIE (Ministry of Commerce, Industry and Energy)
[www.REACH.or.kr, * KNCPC : Korea National Cleaner Production Center]
- MOE (Ministry of Environment) : www.reach.me.go.kr

❑ Main Current Activities in REACH Help Desk Center

- Supply overall informations by exclusive REACH homepage
(about REACH, general guidance on registration, scientific and technical advice on chemicals on-line and off-line sites etc.)
- Questions & Answers including short explanation of REACH for inexperienced users
- Periodically regular educations for chemical industry employees by workshops, seminars, and others
- Distribution of REACH technical guidance for each specific industrial sector
- Networking with experts, industry organizations and trade associations etc.
- Promotion of international cooperation



Current Activities - Preparation for REACH Implementation

- Supply the data base of individual chemical substances
- Operation of task force team for each specific industrial sector (i.e. : petroleum, fine chemical, electrical and electronic, automobile, textile, paper, metal industries etc.)
- Collect informations about industrial needs from manufacturers
- Coordination of network to collect material flow information in the supply chain
- Participation of Consortium for registration of individual chemical substances



Future Plans - Preparation for REACH Implementation

- ❑ **Positive and active reactions about REACH regulation to meet the time schedules for registration in multiple industrial sectors**

- ❑ **Future Plans**
 - Strength of manufacturer's network association
 - Practical training and strategic consulting for downstream users
 - Enlargement of GLP laboratory for testing and analysis
 - Need more close mutual cooperations with international organizations
 - . active participation in SEG (Stakeholder Export Group)



Background

- ❑ **Rapid increase of E-wastes generation and necessity for increasing its recycling rate in Korea**
 - Recycling rate of E-product is about less than 20% of total generation
- ❑ **Increase of environmental damage and economic loss by lack of strong recycling policy**
 - Current recycling policy : Recycling Promotion Guideline and Extended Producer Responsibility(EPR)
- ❑ **International environmental regulations in electrical and electronic equipment and vehicles**

| | | | |
|-------|-------------------|--------|-------------------|
| EU | : RoHS, WEEE, ELV | Japan | : J-MOSS |
| China | : China RoHS | U.S.A. | : California RoHS |
- ❑ **Need systematic management for considering recycling rate of E-products and vehicles**

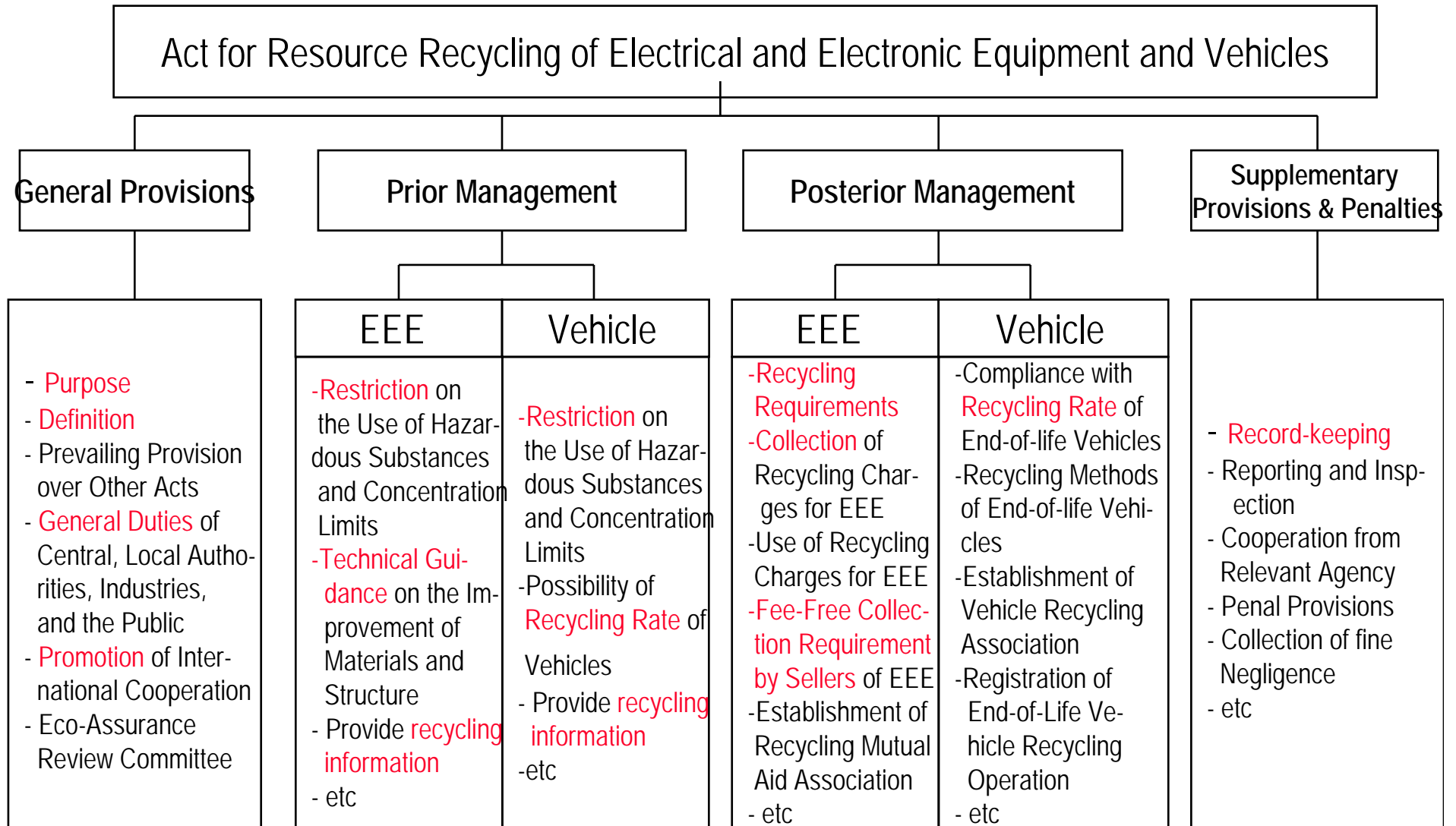


Introduction of KOREA RoHS

- ❑ **Title : Act for Resource Recycling of Electrical/Electronic Equipment and Vehicles**
- ❑ **Enforcement Date : January 1, 2008**
- ❑ **Outlines of the Act**
 - It is an integrated environmental regulation for considering recycling rate of E-products and vehicles.
 - It contains how to collect, treat, dispose, and recycle E-wastes for efficient use of resources to preserve the environment friendly.
 - It is similar to EU ROHS, WEEE, and ELV Directives.



Summary of KOREA RoHS(I)



Summary of KOREA RoHS(II)

Duty of Prior Management

Article 9. Restriction on the Use of Hazardous Substances

- Target Product
- concen. limit of contained hazardous substances
- exemption cases
- analysis method of hazardous substances

Article 12 clause 1 Provision of recycling information

- recycling information

Article 10. Improvement of Materials & Structure

technical guidance

Article 12 clause 2,3 Submission of Proposal

- proposal for recycling improvement by recycler

Declaration/Record-Keeping

Article 11. Declaration

- compliance with concen.limit
- annual recycling rate of vehicle

Information system of operating management

Homepage

Recycler

Article 36 Record-keeping

Registration of recycling information

Reporting & Inspection

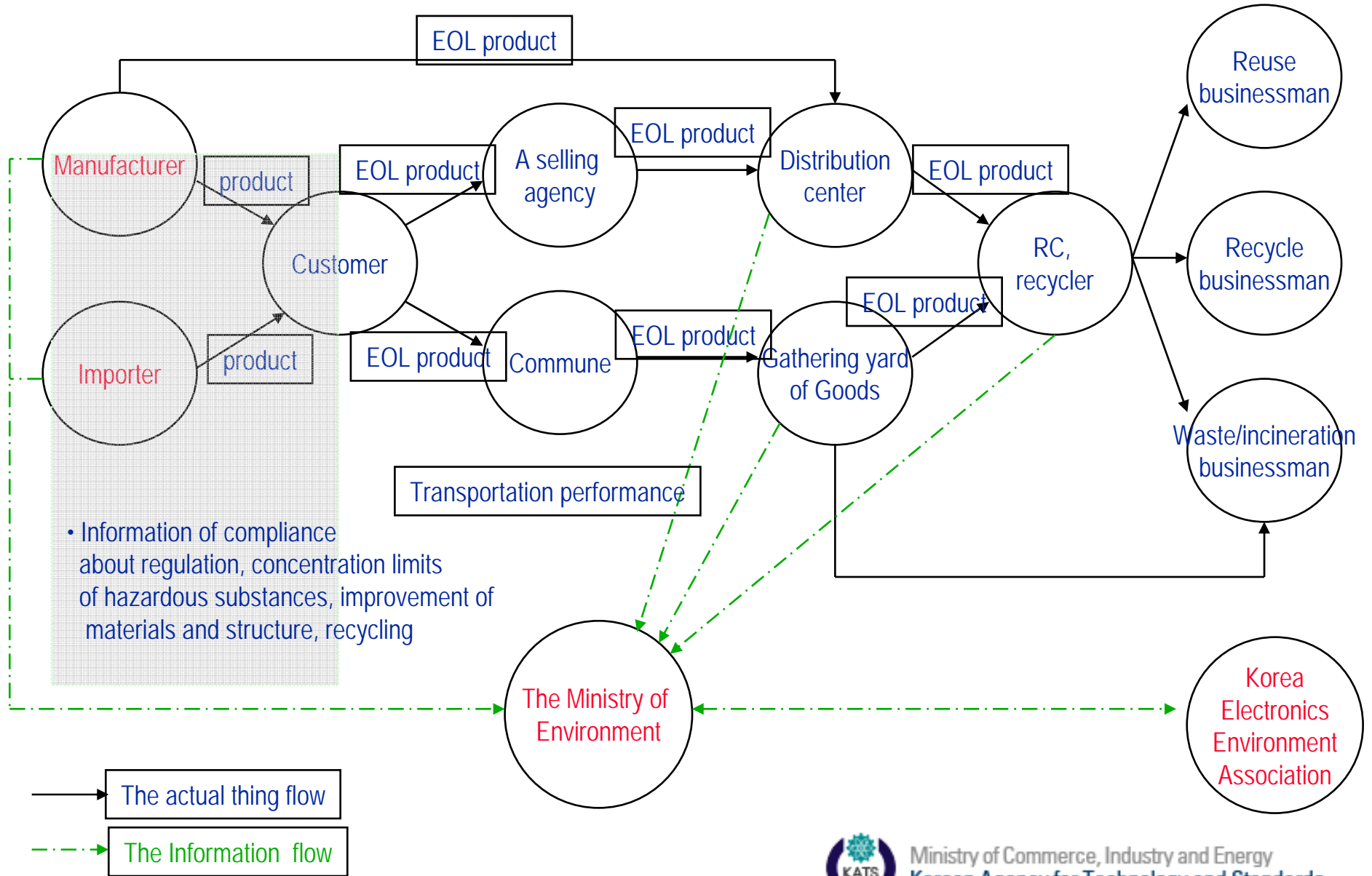
Article 37 Reporting & Inspection

Inspection Method

Article 13. Reporting on the Implementation of Order for promotion of recycling

- Implementation of order

Management Information System



Comparison of International Environmental Regulations in Electrical and Electric Equipment

- The key provisions of Korea RoHS are basically similar to European Directive. However, there are many differences in implementation aspects

| ITEMS | KOREA | EU | JAPAN | CHINA | USA(CA) |
|---------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------|
| Target Product | Electrical and Electronic Equipment (10 items) | Electrical and Electronic Equipment (8 categories)) | Electronic Appliance | Electronic Information Product | Video-display appliance (> 4-inches screen) |
| Restricted Subs./MCV | Pb(0.1%), Cd(0.01%) Hg(0.1%), Cr ⁶⁺ (0.1%) PBB(0.1%), PBDE(0.1%) to be regulated | Pb(0.1%), Cd(0.01%) Hg(0.1%), Cr ⁶⁺ (0.1%) PBB(0.1%), PBDE(0.1%) | Pb(0.1%), Cd(0.01%) Hg(0.1%), Cr ⁶⁺ (0.1%) PBB(0.1%), PBDE(0.1%) | Pb(0.1%), Cd(0.01%) Hg(0.1%), Cr ⁶⁺ (0.1%) PBB(0.1%), PBDE(0.1%) | Pb(0.1%), Cd(0.01%) Hg(0.1%), Cr ⁶⁺ (0.1%) |
| Design for Recyclability | Improve recyclability According to to Technical Guidance published by MOE and MOCIE | Not mandatory But it will be prescribed by EuP | Improve recyclability according to “Law for Promotion of Effective Utilization of Resources” | Not mandatory | Not mandatory |
| Conformity | Declaration of Conformity | Self-Declaration | Labelling (Orange R/Green G) | Information Disclosure, CCC certification | Reporting to Authorities |
| Enforcement Date | Jan 1, 2008 | July 1, 2006 | July 1, 2006 | Mar 1, 2007 | Jan 1, 2007 |



Target E-Products and its Recycling Rate in Korea RoHS

□ Target Products

1. Television
2. Refrigerator
3. Washing machine (in household)
4. Air conditioner
5. PC (include monitor and keyboard)
6. Audio
7. Mobile phone (include battery and charger)
8. Printer
9. Copier
10. Fax machine

□ Recovery Rate

(basis : wt%/each item)

| Items | Recycling+Energy Recovery | |
|-------------|----------------------------------------------------------|----------------------------------------------------------|
| EE Products | 85% (before 2010 year) (including 5% energy recovery) | 95% (After 2010 year) (including 10% energy recovery) |
| Vehicles | 85% (before 2015 year) (including 5% energy recovery) | 95% (After 2015 year) (including 10% energy recovery) |



Thank You !!



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