



# UNEP-AIST Workshop on Waste Plastics Management in Developing Countries

March 2, 2011



MITSUI & CO. (THAILAND) LTD.  
MITSIAM INTERNATIONAL, LIMITED



Advanced Materials Department  
Performance Chemicals Second Division

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# 1. Corporate Overview

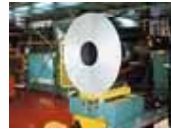
- **Foundation : 25th July, 1947**
- **Offices :**  
**152 branches in 67 countries**  
**(Domestic: 12, Overseas: 140)**  
**533 subsidiaries/associated companies**
- **Capital Stock : JPY340bil (US\$3.7bil)**
- **Market Cap : JPY2,775bil (US\$30.8bil)**  
**(Exchange Rate: JPY90.0/US\$)**
- **Employees :**  
**5,886 (non-consolidated)**  
**39,864 (consolidated)**



**Mitsui & Co., Ltd**

# 1-2. Mitsui's Organization

Iron & Steel Product B.U.  
(ex. pipeline)



Energy B.U. / Energy B.U.  
(ex. oil & gas)



Mineral & Metal Resources B.U.  
(ex. mining)



Food and Retail B.U.  
(ex. demand chain management)



Infrastructure Project Business B.U.  
(ex. IPP projects, trains)



Consumer Service B.U.  
(ex. apparel)



Motor Vehicle B.U.  
(ex. automobiles)



IT B.U.  
(ex. e-commerce, IT)



Marine & Aerospace B.U..  
(ex. ships, airplanes,)



Financial Markets B.U.  
(ex. VC, commodity trading)



Basic Chemicals B.U.



Transportation Logistics B.U.  
(ex. shipping)



Performance Chemicals B.U.

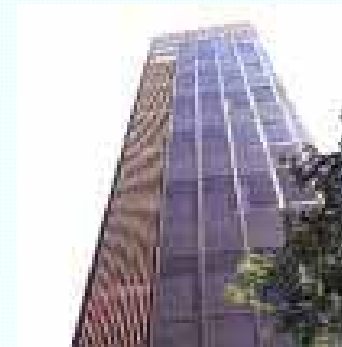


**14 Business Units**

# PERFORMANCE CHEMICAL B.U.

## 11 Divisions

- Planning and Administration Div.
- Advanced Materials Div.
- Performance Materials Div.
- Specialty Chemicals Div.
- Renewable Energy Div.
- Ammonia and Sulphur Div.
- Agri Science Div.
- Fertilizer Div.
- Marketing Platform Planning and Administration Div.
- West Japan Chemicals Div.
- Chubu Chemicals Div.



- ◆ **Company name:** Mitsui Bussan Plastics Trade
- ◆ **Shareholder:** Mitsui & Co., Ltd. (100%)
- ◆ **Annual sales:** Approx. JPY 220 billion
- ◆ **Key business:**
  - ✓ Operation relating to the domestic sales, import, export of;
    - Plastic resins and products
    - Synthetic rubber, construction materials, packaging and logistics materials etc.
  - ✓ Sales agent

# 1-3. Projects in Overseas Market

## Stable Supply of Foods



**Agricultural Business, Brazil**

## Environmental Recycling Business



**Metal Recycling & Environmental Solutions**

## Solar Energy Generation



**Acquisition of U.S. Solar Power Technology Company**

## Stable Supply of Energy



**Offshore gas production facility, Qatar**

## Investing in CDM projects



**Methane capture and combustion from pig farm, Indonesia**

## Development of Bioethanol



**Sugar cane fields for ethanol production**

## **2. Mitsui's Global Engagement in Recycle Business**



**< Corporate Policy for Recycle Business >**

**Aim for Providing Stable Supply of Resources and Industrial Solution for Environmental Problems by Both Ground and Underground Resources**

# 2-1. Recycle Business Platforms

## 1. **Sims Metal Management**

One of the World-leading Companies of Metal Scraps and Recycling  
247 Sites in the West, Australia and New Zealand  
Mitsui & Co., Ltd's Share; 17.8%

【Dealing Volume of Metal Scraps: 16 Million MT/Y】

[REFERENCE](#)

## 2 . **Mitsui Bussan Metals**

100% Subsidiary Company of Mitsui & Co., Ltd.  
20 Years of Experience in Metal Recycling and Environmental Solution Business

【Dealing Volume of Metal Scraps: 5 Million MT/Y】

[REFERENCE](#)

## 3 . **Kyoei Recycling**

Joint Venture Enterprise with Kyoei Steel for Disposal of Industrial Wastes  
Detoxifying Treatment for Shredder Dust of Automobile (ASR), Medical Wastes and  
Polluted Soil by Gasification Smelter

Reuse of Generated Gas as Fuel by Furnace of Kyoei Steel

【Dealing Volume of Industrial Wastes: 28,000 MT/Y】

[REFERENCE](#)

# SIMS METAL MANAGEMENT

【Establishment】 1917

【Stock listings】 ASX, NYSE

【Sales】 A\$8.6 billion (FY 2009)

【Ownership stake】 17.8% (largest shareholder)

【Head office】 NY and Chicago

【Market cap.】 A\$3.7 billion (as of 25 Jun 2010)

【Net profit】 A\$150 million (FY 2009)

【Mitsui's total investment】 approx. JPY95 billion

## Business Activities

**Metal recycling business:**

- Ferrous and non-ferrous metal scrap  
(Approx. 16 million t/year)



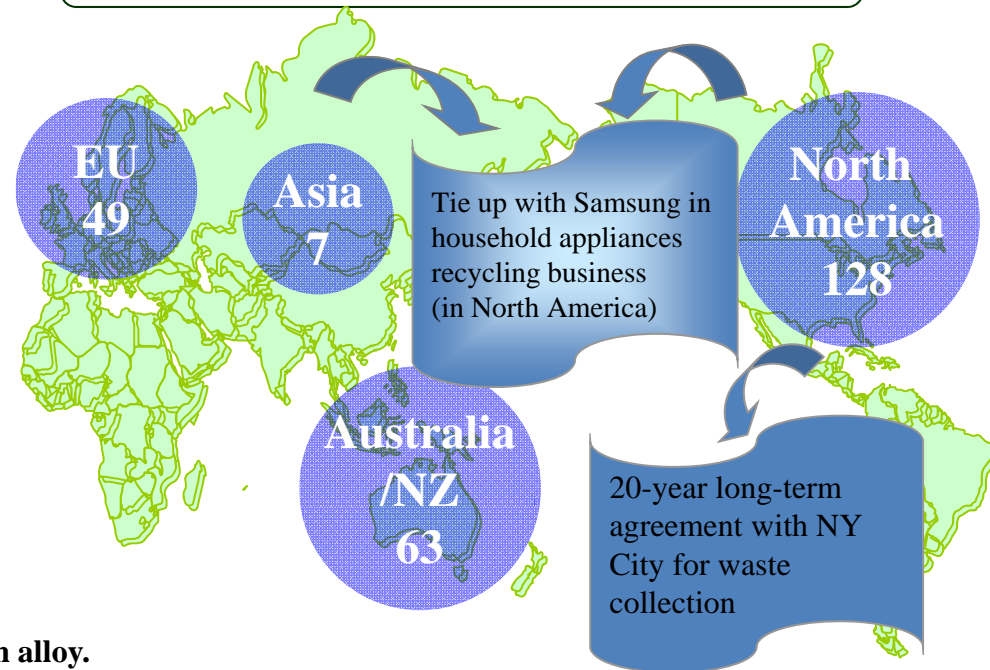
**Environmental recycling business:**

- Recycling of used household appliances
- Waste treatment (metal/glass/plastic)



**Others: Recycling of plastic & tires. Secondary aluminum alloy.  
Methane gas collecting and power generation.**

## 247 Global Bases



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# mitsui BUSSAN METALS

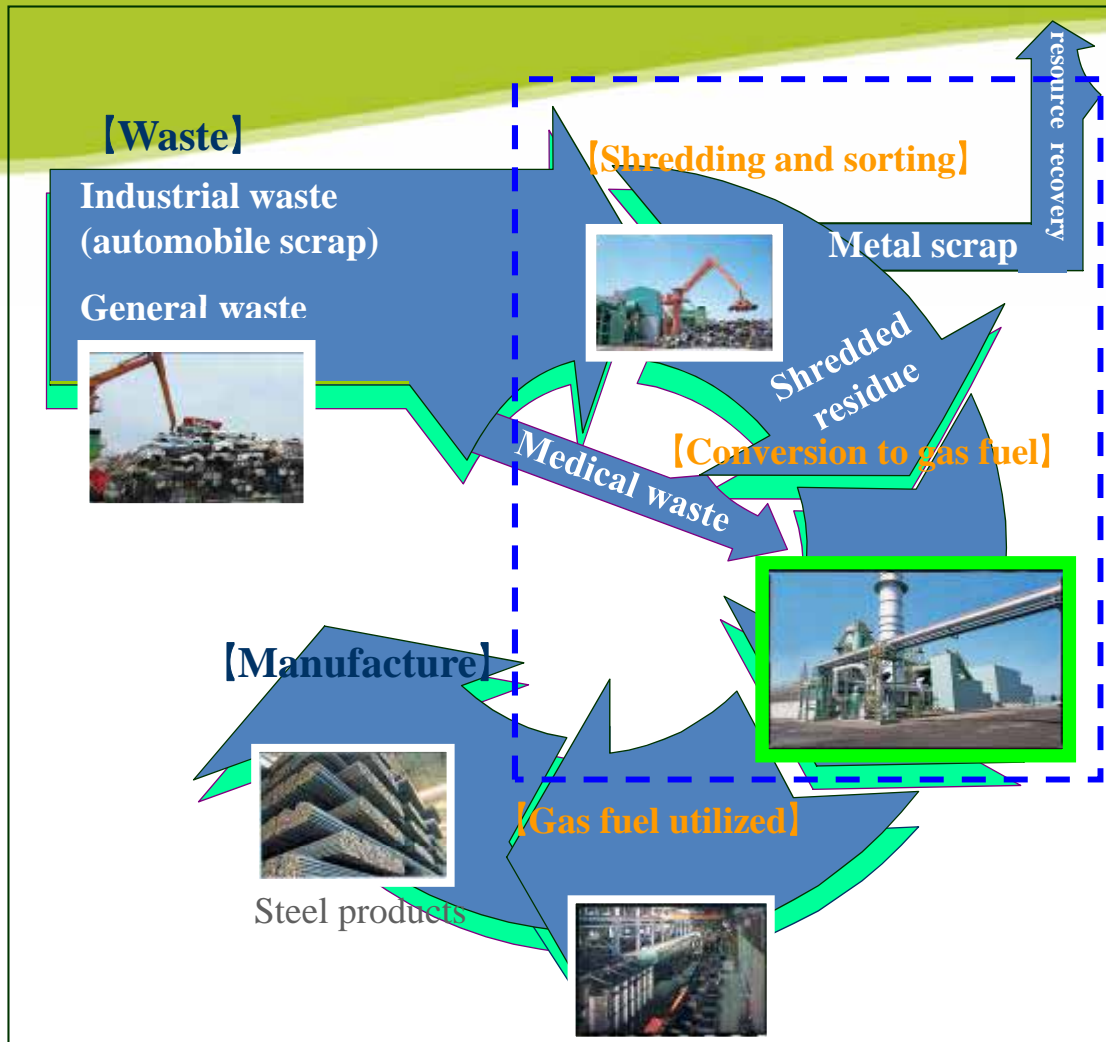


- ◆ **Company name:** Mitsui Bussan Metals Co., Ltd.
- ◆ **Shareholder:** Mitsui & Co., Ltd. (100%)
- ◆ **Annual sales:** Approx. 530 billion yen
- ◆ **Number of employees:** 350 (as of September, 2008)
- ◆ **Key business:**
  - ✓ Domestic trading and import/export of steel scrap, pig iron, ferro-alloys, and other ferrous raw materials.
  - ✓ Domestic trading and import/export of non-ferrous metal scraps, special steel scraps.
  - ✓ Domestic trading and import/export of non-ferrous metals products (titanium, aluminum products, secondary aluminum alloys, etc.)
  - ✓ Auto wrecker business
  - ✓ Environmental solutions business (electric and electronic appliance recycling, collection of and resource recovery from shredded residues)
  - ✓ Sales of waste processing equipment and facilities.
  - ✓ Import of mineral resources.

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# KYOUEI RECYCLING



➤ Gasifies and detoxifies industrial waste\* at high temperatures in melting furnace

\*Automobile shredder residue, medical waste, waste effluent, contaminated soil, asbestos, etc.

➤ Collected gas is reused as a heating source (substitute for kerosene)

## **[Overview of Kyouei Recycling Co., Ltd.]**

[Shareholder structure]

Mitsui & Co. 33.5%, Kyouei Steel 41.5%,  
Sumitomo Metal Industries 20%,  
Air Water Inc. 5%

[Established]

February 1, 2004 (Operation started in April, 2004)

[Volume of waste processed]

90 t/day

[Energy conservation effects]

equivalent to 8,525 kl of crude oil per year  
CO2 emissions reduced by 23,102 t/year

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## 2-2. E-Waste Recycling Projects

### **1. Campaign for Collection of Used Cellular Phone**

Experimental Project for Promoting the Collection of Used Cellular Phones  
By Ministry of Economy, Trade and Industry (METI)  
Retail Shops of Home Appliances as Collection Sites  
Government Budget; JPY 300 Million  
【Implementation : During November 21, 2009 – February 28, 2010】

### **2. Recycling Campaign for Small WEEEs**

Liaison with Japan's Ministry of Environment (MOE), Ministry of Economy,  
Trade and Industry (METI) and Other Municipal Authorities  
Small WEEEs; Digital Cameras, Video Cameras, Portable Music Players, Portable  
Game Devices.  
【 Implementation : During November 15, 2009 – February 28, 2010 】

[REFERENCE](#)

### **3. Experimental Recycle Project for China's WEEE Law**

Pilot Recycle Project for China's WEEE Law  
Memorandum of Understanding (MOU) with METI

# REFERENCE

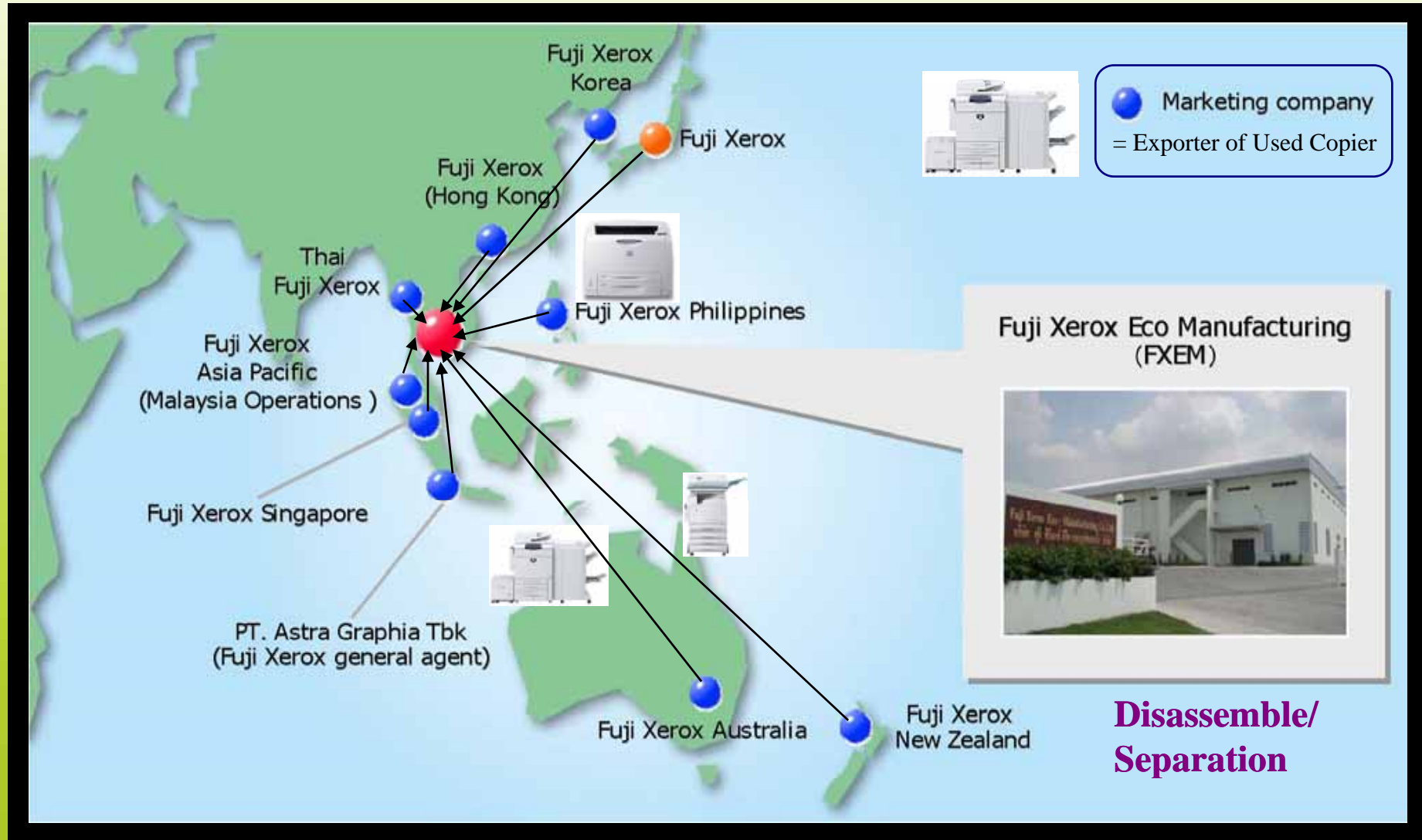
	<b>Recycling Campaign for Used Cell-Phones</b>	<b>Recycling Campaign for Used Small WEEEs</b>
<b>Campaign Period:</b>	21st Nov. 2009 ~ End/Feb. 2010	15th Nov. 2009 ~ End/Feb. 2010
<b>Collected number of items:</b>	About 570,000pcs	About 10,000pcs
<b>Recovered Metals:</b>	22 kg of gold, 79 kg of silver, 5,670 MT of copper and 2 kg of palladium	Under refining
<b>Collection Points:</b>	Over 1,900 points (at mass retailers)	122 collection boxes & 35 collection events
<b>Organizer:</b>	<b>Ministry of Economy Trade and Industry (METI)</b>	<b>Ministry of the Environment, Ministry of Economy Trade and Industry The Tokyo Metropolitan Government, Koto Ward, and Hachioji City, Japan Oil, Gas and Metals National Corporation</b>
<b>Features:</b>	Incentive collection: Website based lottery (max. US\$500/piece) financed with a budget from METI (approx. US\$5mil.)	Voluntary collection: Original collection boxes placed in community centers, supermarkets and stations. Collection events (school festivals, etc.)
	Potential reserve of used cell-phones in Japan is estimated to be 300-500 mil. pieces	<b>Target used small WEEEs:</b> <b>Cell phones, digital cameras, video cameras, portable music players, portable game devices, etc.</b>



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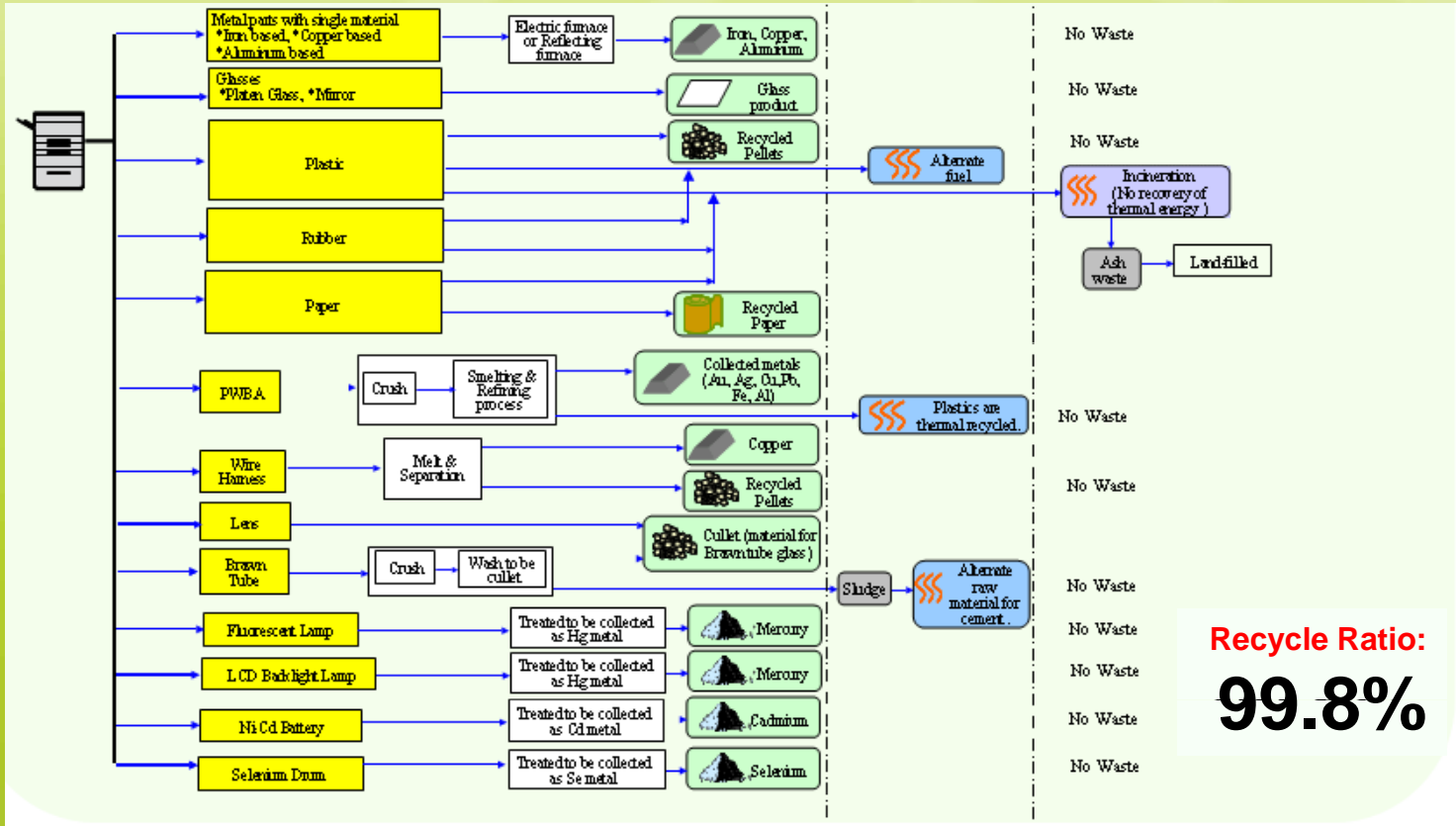
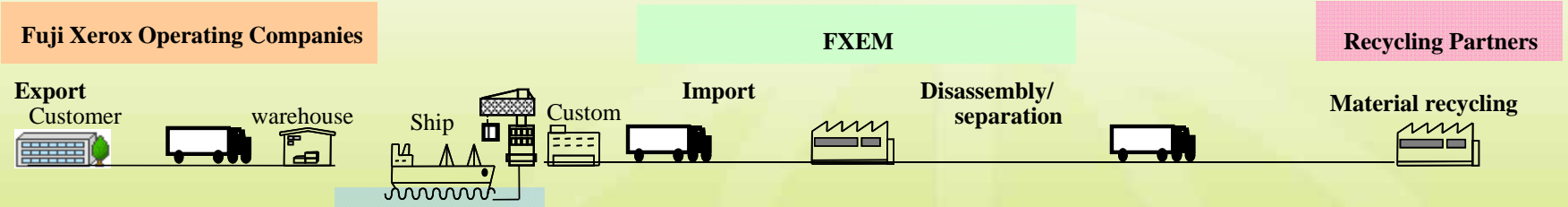


## 2-3. Recycling Business Scheme (Closed Loop System)



# Recycling Flow of Used Xerox Office Equipment

## <Fuji Xerox's International Resource Recycling System>

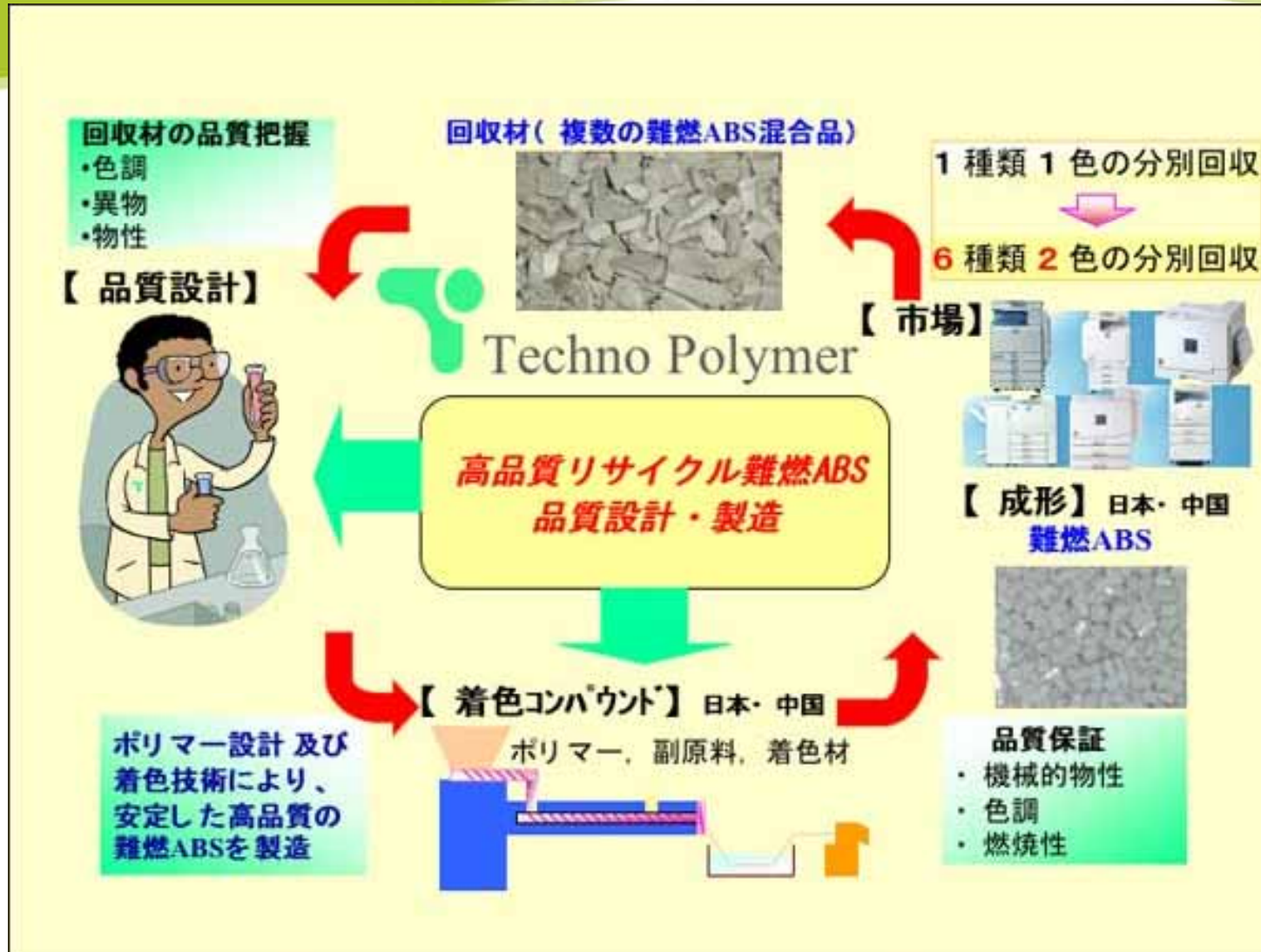


**Recycle Ratio:**  
**99.8%**

## 2.3 Recycling Business Scheme (Closed Loop System)



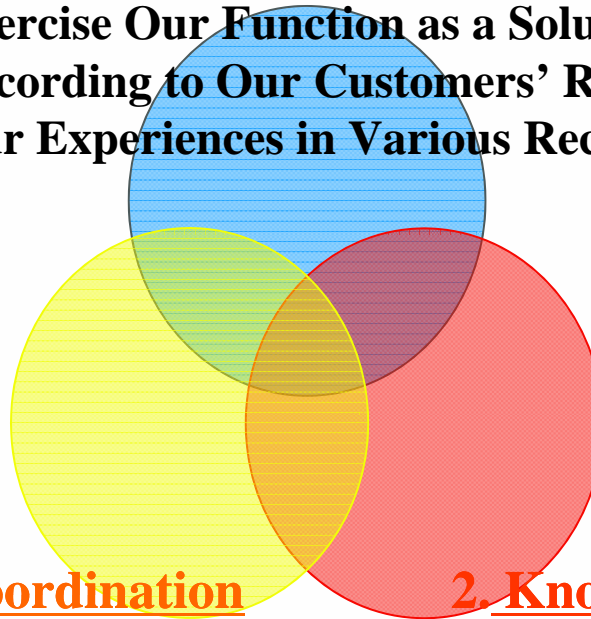
# Techno Polymer



## 2-4. Our Strength

### 1. Solution Provider

**Exercise Our Function as a Solution Provider  
According to Our Customers' Request through  
Our Experiences in Various Recycle Businesses**



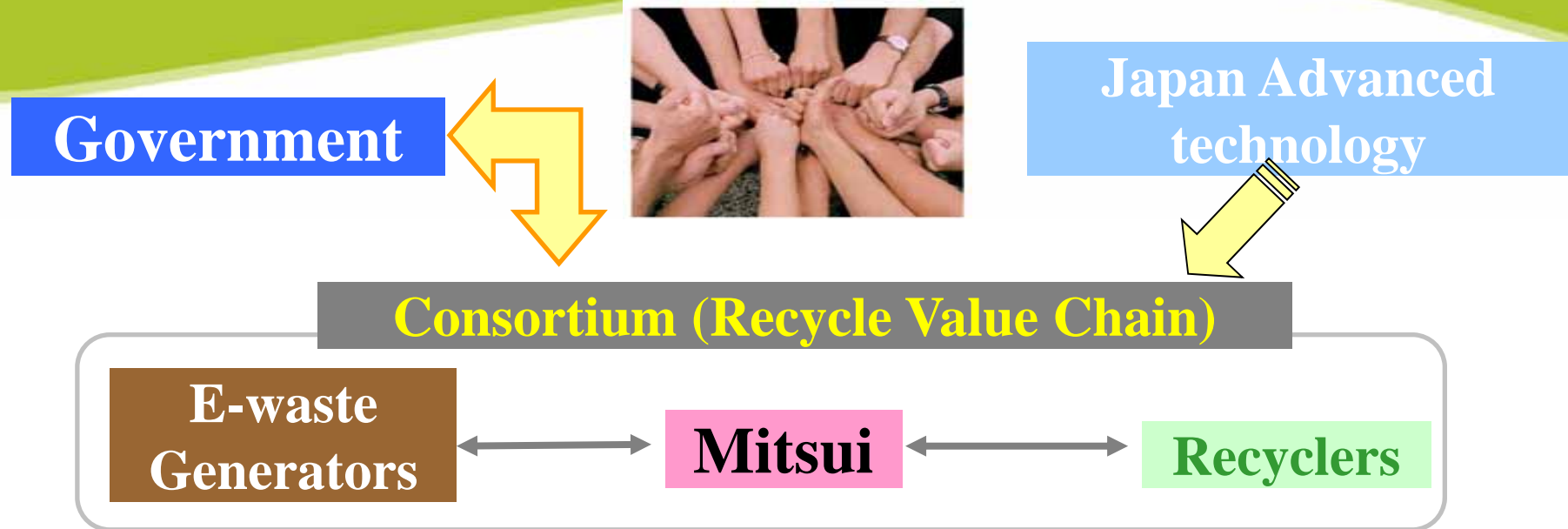
### 3. Global Network and Coordination

**Utilize Our Global Network and  
Connection and Coordinate among  
Authorities, E-waste Generators  
and Recyclers**

### 2. Knowledge and Experience

**Knowledge and Experience in  
International and Domestic  
Laws Related to E-waste Management**

# 3. Mitsui's Strategy and Future Prospects



1. **Stable Supply of Resources and Industrial Solution for Environmental Problems** by **Ground** and **Underground Resources**
2. **New Recycle Value Chain** in Liaising with Governments, E-waste Generators and Recyclers
3. Introduction of **Japan's Advanced Recycling Technology and Infrastructures** to **ASEAN** Region



*Thank You*