

Fuji Xerox International Resource Recycling System in Asia-pacific region

- . Concept of Fuji Xerox Integrated Recycling System
- . 3R System of Fuji Xerox
- . Integrated Recycling System in Asia-pacific region
- . Establishment of International Resource Recycling System
 - 1) Key enablers
 - 2) Conclusion

October 30, 2006

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Manufacturing Group
Fuji Xerox

Fuji Xerox Overview

Name

Fuji Xerox Co., Ltd.

Principle Offerings

Office Equipment

- Copy Machines (PPC)/Digital Multifunction Machines/ Color Multifunction Machines/Laser Printers, etc



DocuCentre 707



DocuCentre Color 400

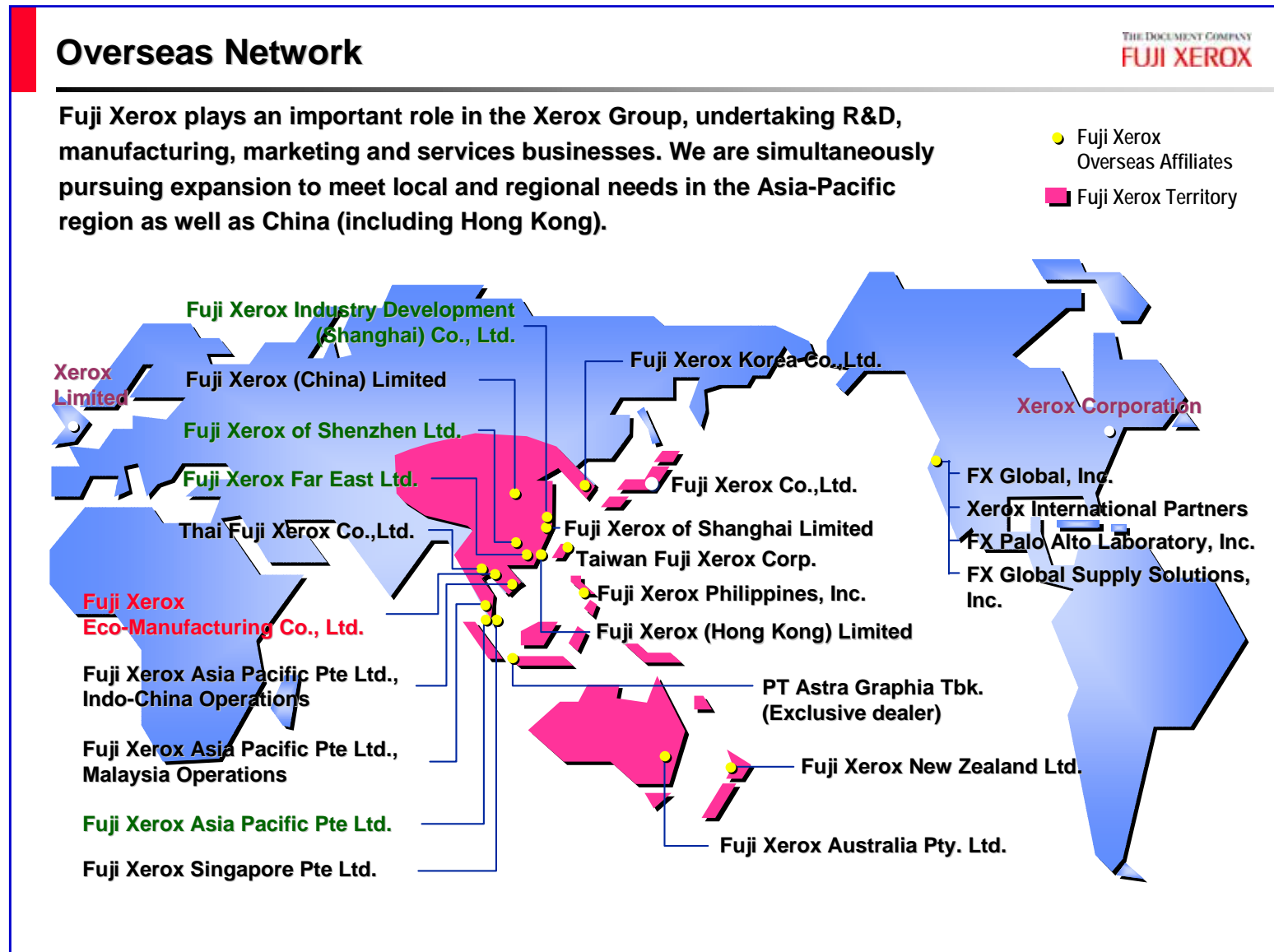


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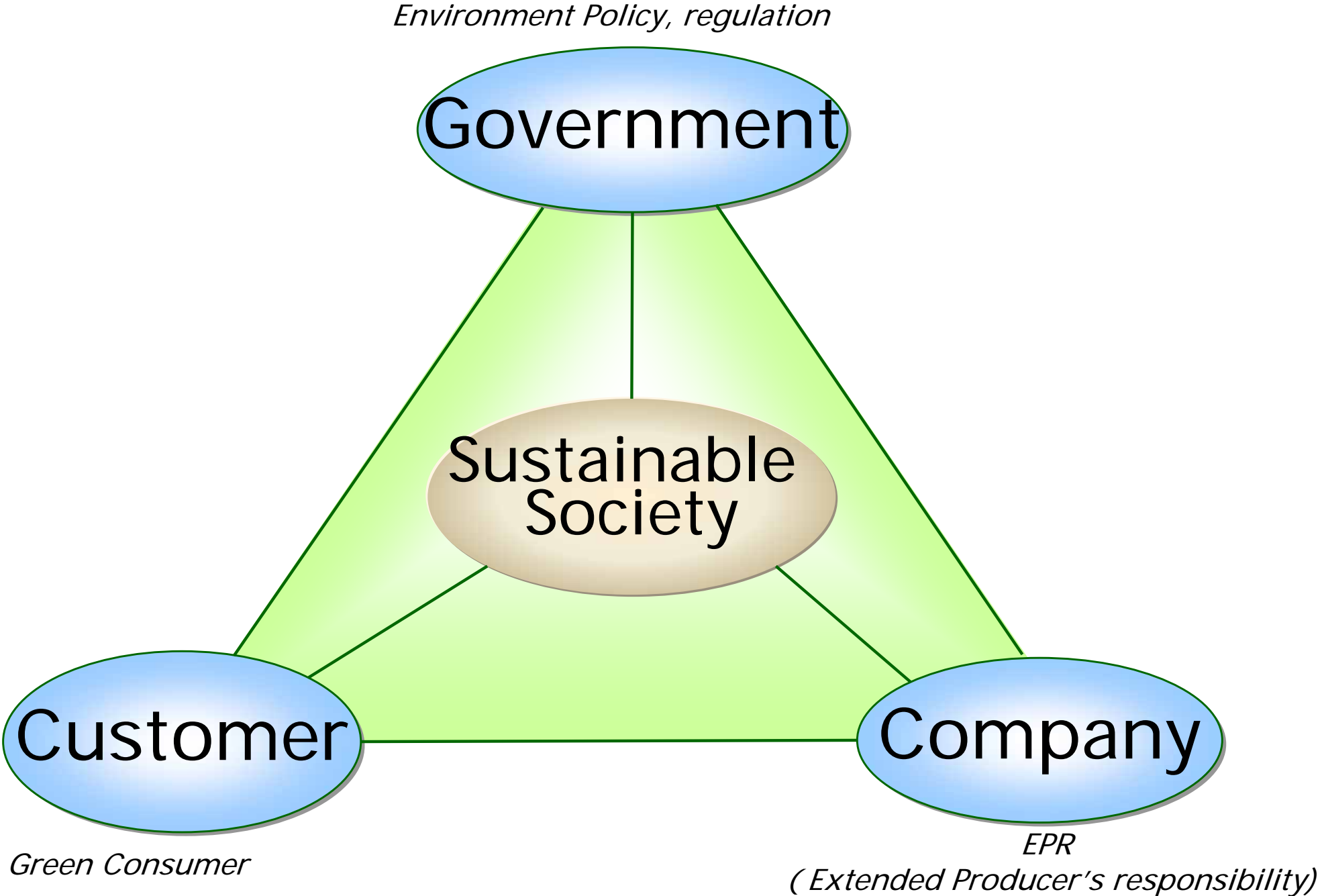
Fuji Xerox Network in Asia-pacific

Business in Asia-pacific region

- Establishment : 1962.2.20
- Number of employees : 14,601
- Marketing base : Operating subsidiaries in 9 countries/region in Asia-pacific



Cooperation required to establish sustainable society



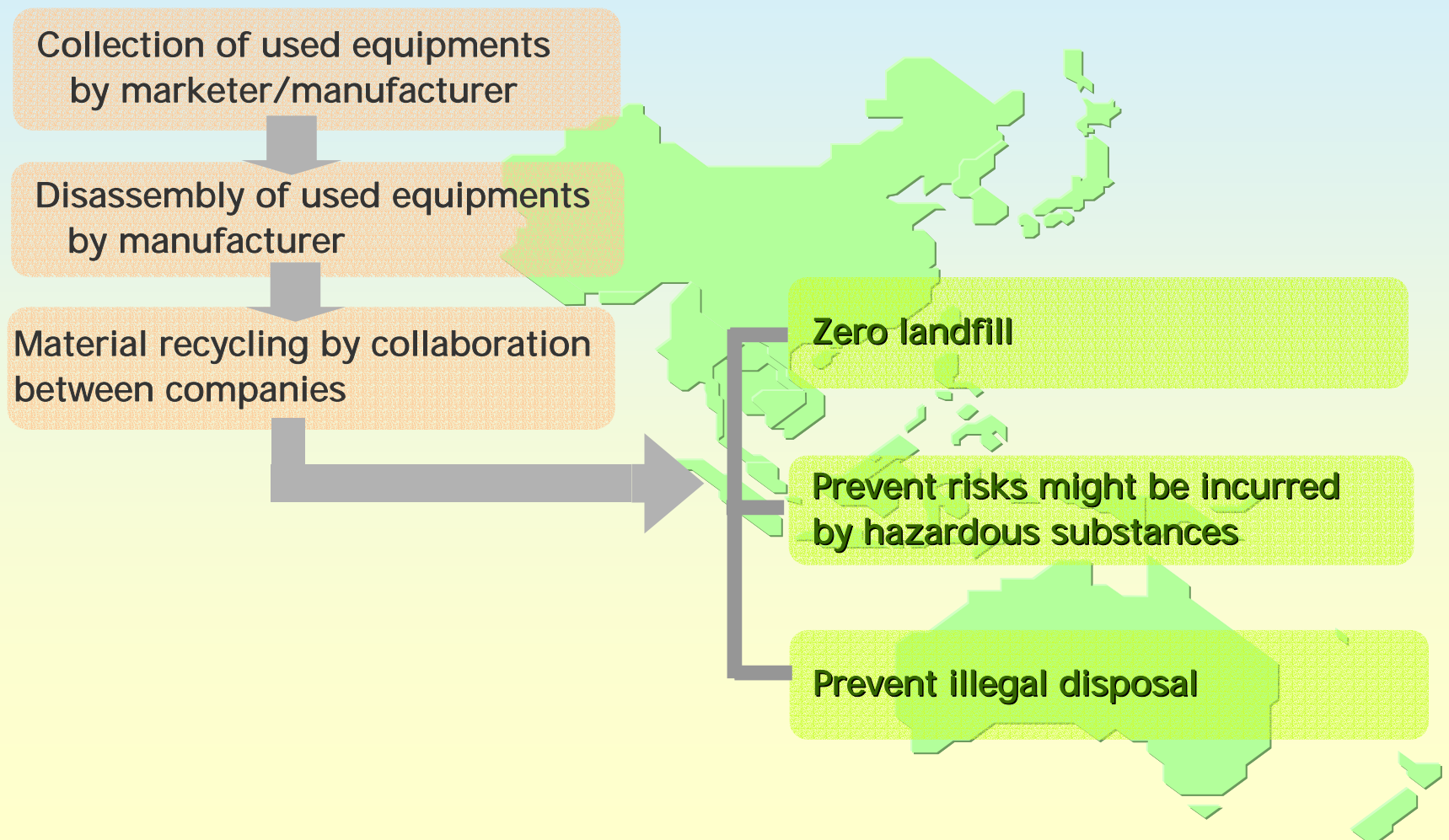
Concept of Fuji Xerox Integrated Recycling System

Fuji Xerox Corporate Recycling Policy

"Promote the reuse of resources for Infinite Zero Landfill"

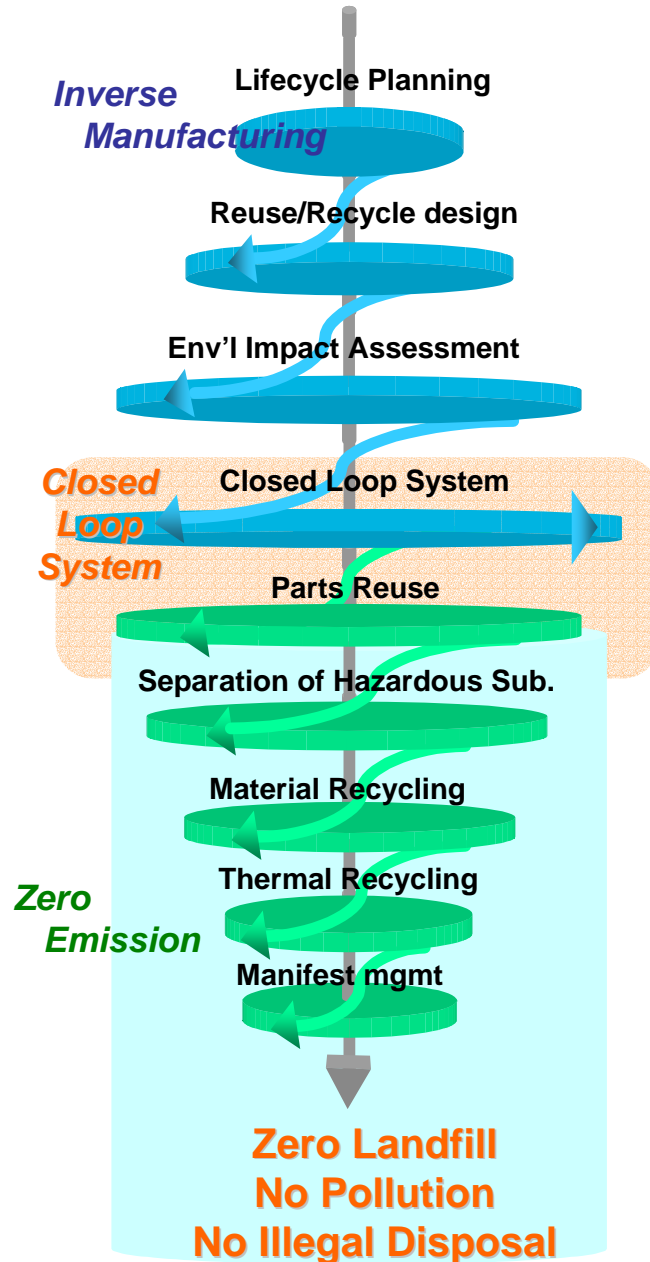
Policy for the implementation

Fuji Xerox, as a member of society, will achieve corporate recycling policy in all of territories based on the concept of EPR



. 3R System of Fuji Xerox

< Corporate recycling policy > Promote the reuse of resources for "infinite" zero-landfill (1995)



Closed Loop System

- Introduced copier machine w/reused parts to domestic market in 1995
 - ✧ Collection ratio: 90%
 - ✧ Production volume of the copier machine with reused parts 30,000 units/year

Inverse Manufacturing

- Quality assurance technology of remaining life of the parts
- 3R design/multiple-generation design
- Design to reduce contain of hazardous substances
 - ✧ Parts reuse ratio 50% (number of parts)

Zero emission

- Establishment of "zero-landfill" network throughout Japan
 - ✧ 2000.8 recycling ratio : 99.97%

. Integrated Recycling System in Asia-pacific region

Integrated Recycling System in Asia-Pacific region for Infinite Zero Landfill

Started operation in Dec 2004

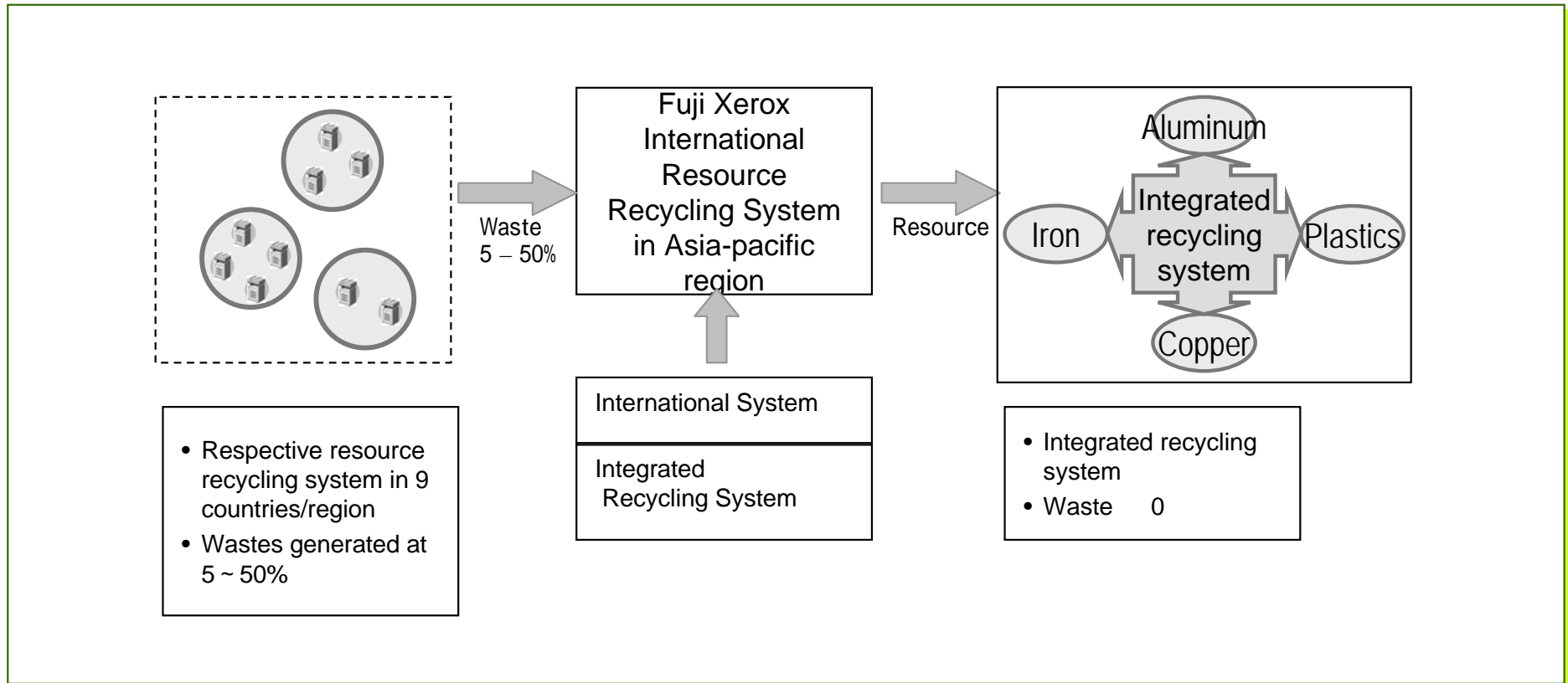
< Base policy >

- ◆ Fuji Xerox, as manufacturer, directly manages and operates the plant and guarantees no risks to customer and import country
- ◆ Provide continuous and uniform quality by centralizing used equipments generated in 9 countries and region of Asia-pacific
- ◆ Reduce environmental impacts in each country/region

< 4 principles >

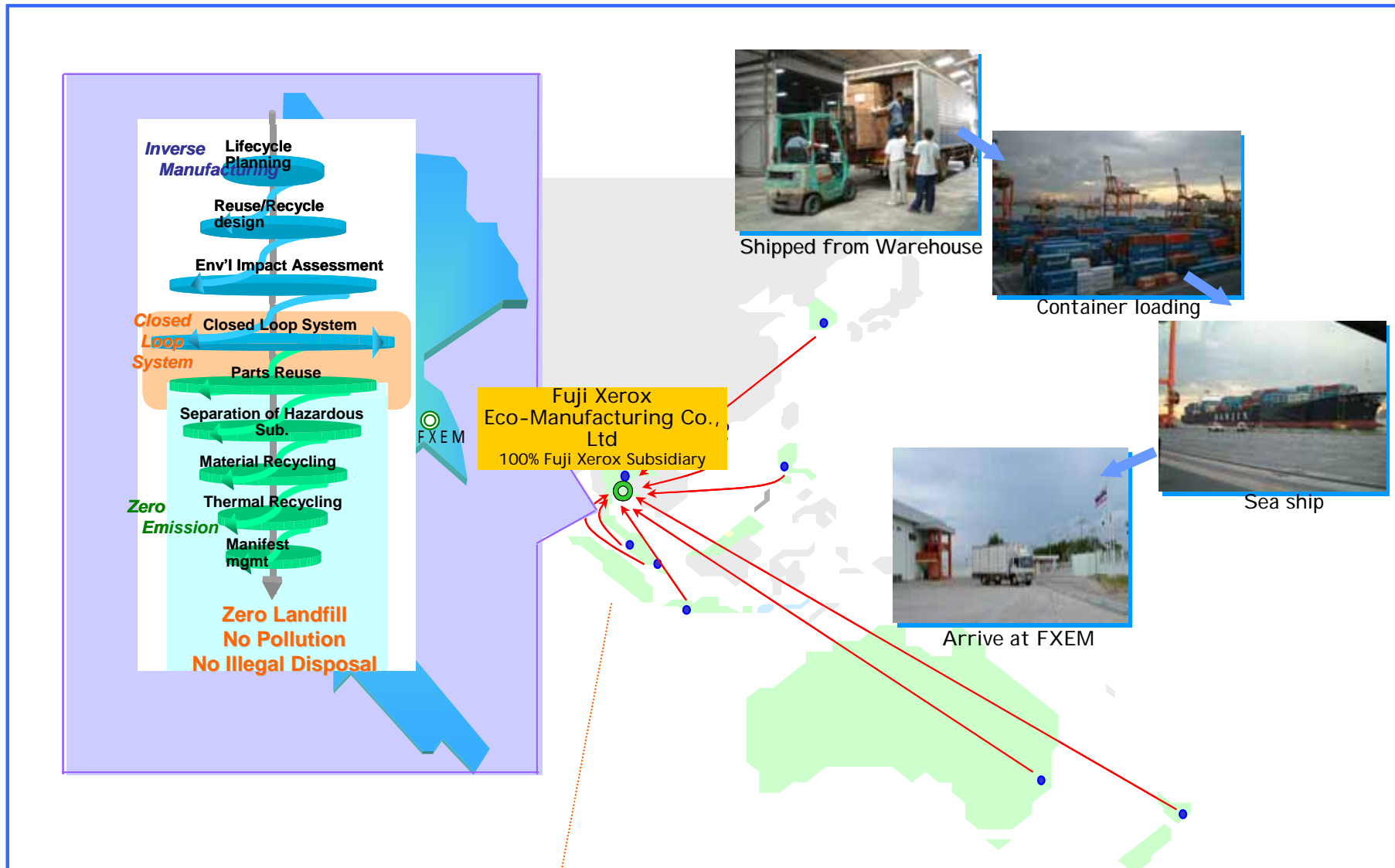
1. Prevent illegal disposal by collecting used equipments by manufacturer's responsibility
2. Not to incur environmental impacts in importing country
(ex. by hazardous substances)
3. Not to generate waste in the importing country
- 4 . Provide benefits to the importing country

Fuji Xerox International Resource Recycling System



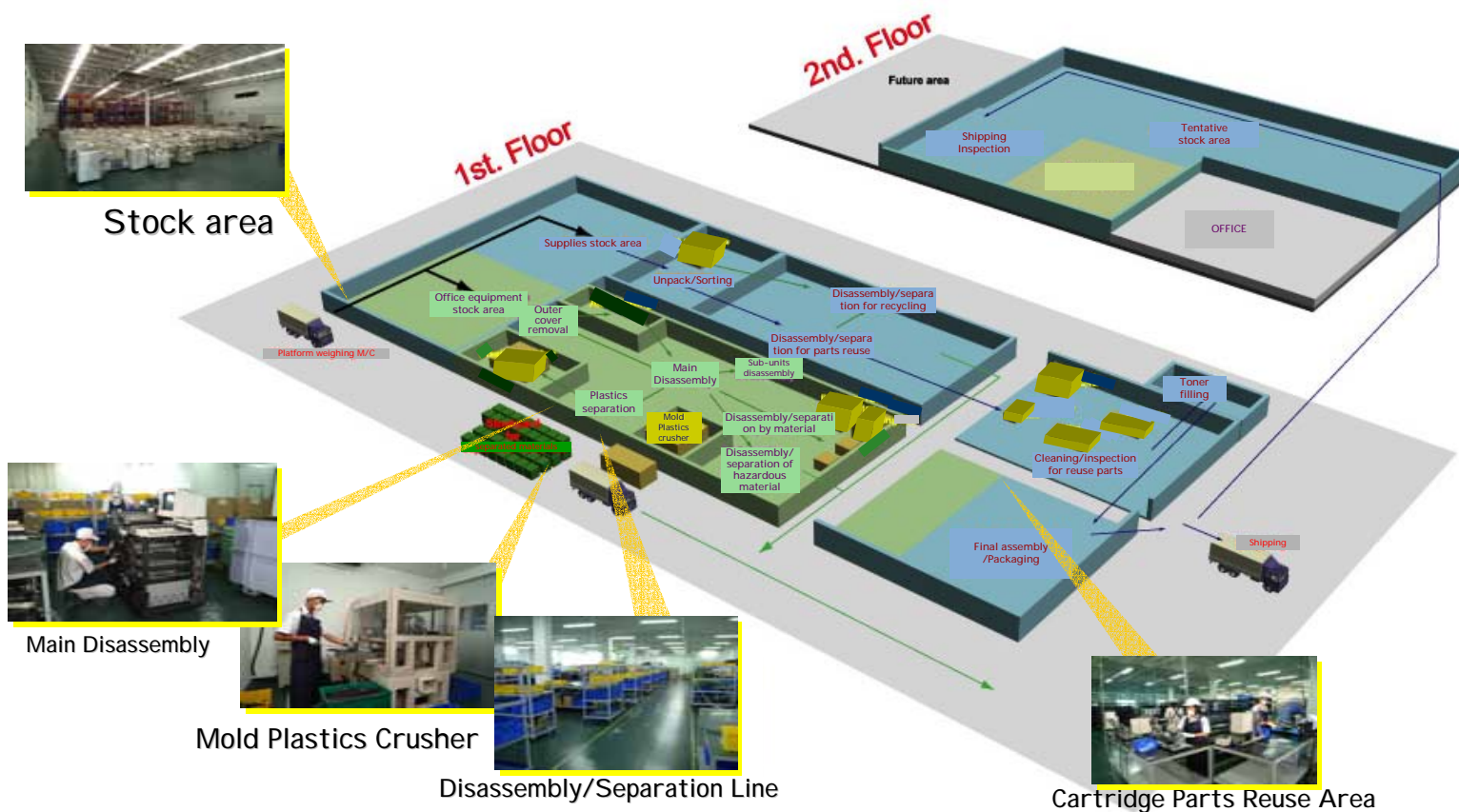
Centralized Recycling Center Established in Thailand

Collect used Xerox office equipment/supplies from Operating Companies of 9 countries/region in Asia-Pacific

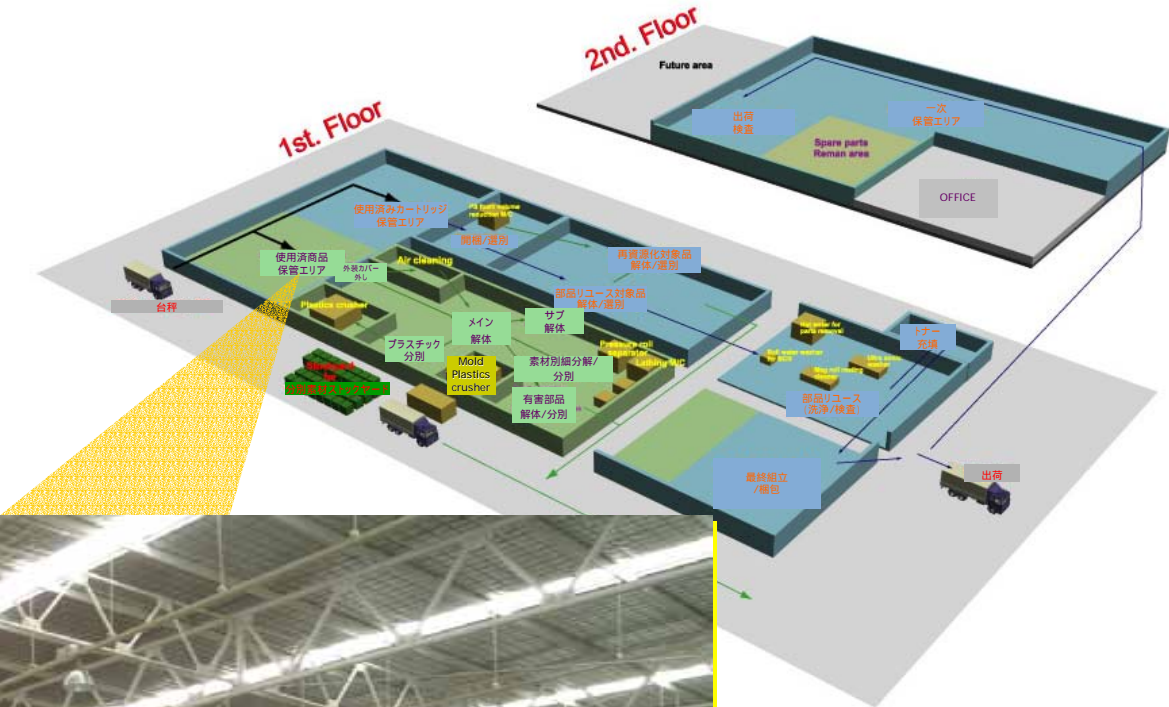


Ecoland in Thailand (FXEM)

- High material recovery ratio achieved by thorough manual disassembly
 - : Separation category : 44 in Japan 64 in Thailand
- Thorough separation of plastics by type and material recovery
 - : 6 types in Japan 14 types in Thailand
- Thorough control of parts contains hazardous substances
 - : 4 parts contains hazardous substances are to be treated in Japan
- Consideration for working environment
- Tracking System



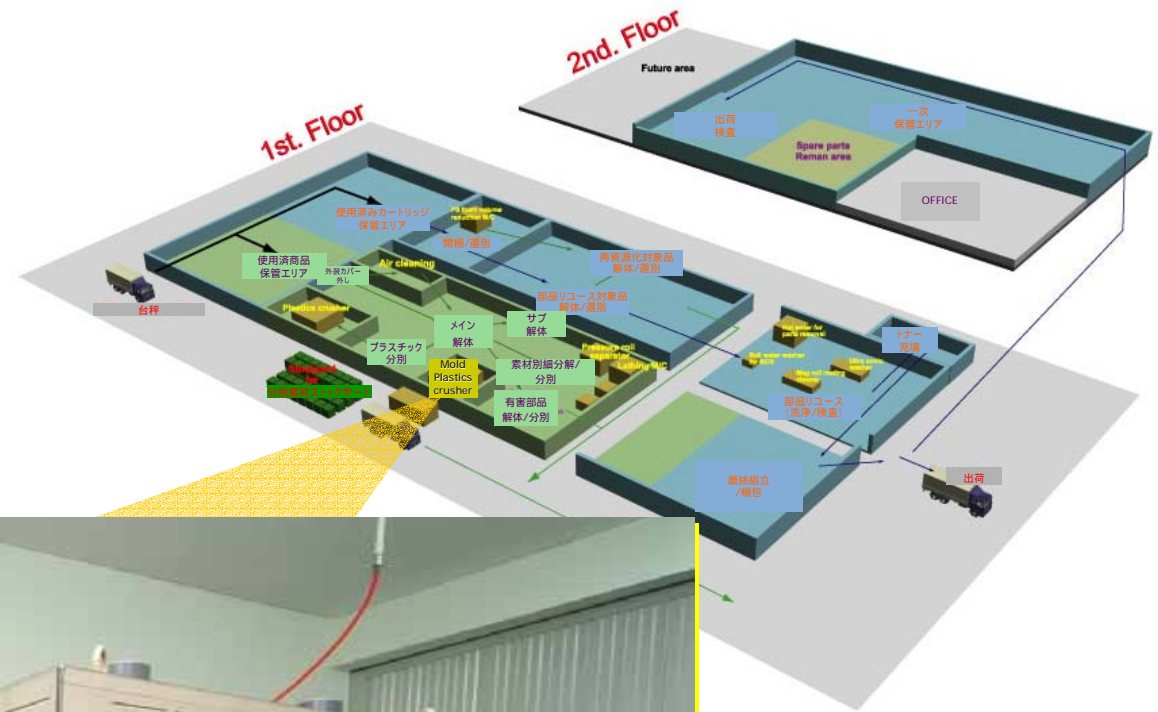
Stock area – Ecoland in Thailand



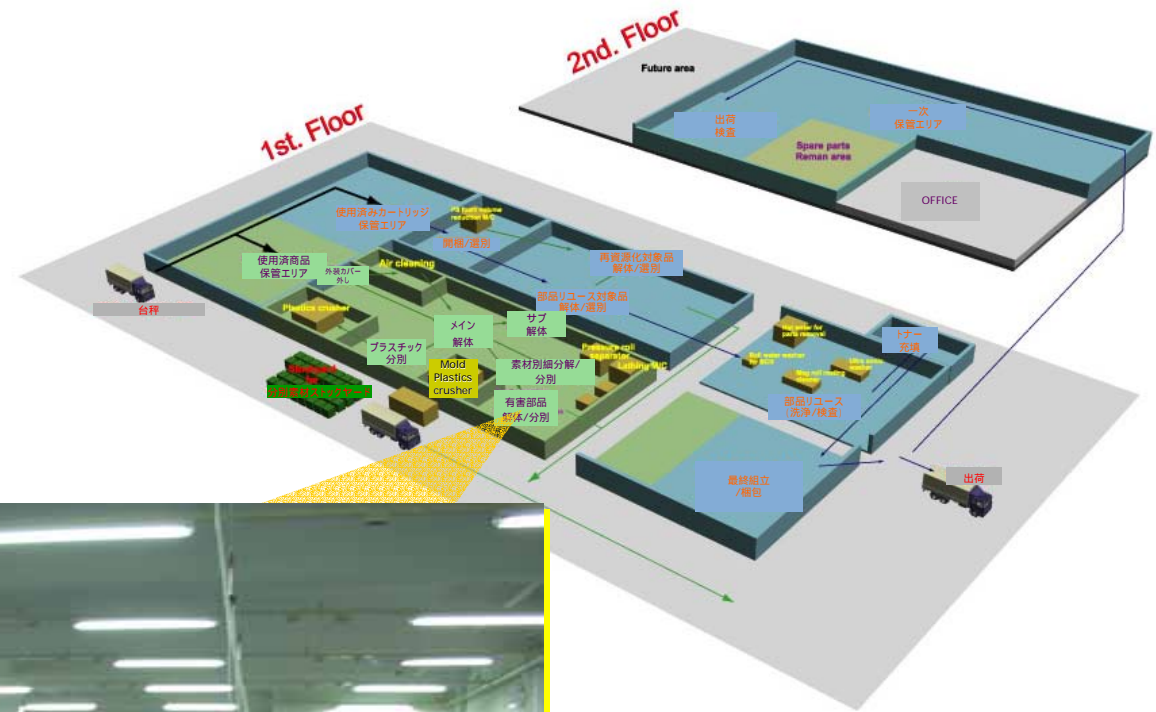
Disassembly and Separation of Used equipment-Ecoland in Thailand



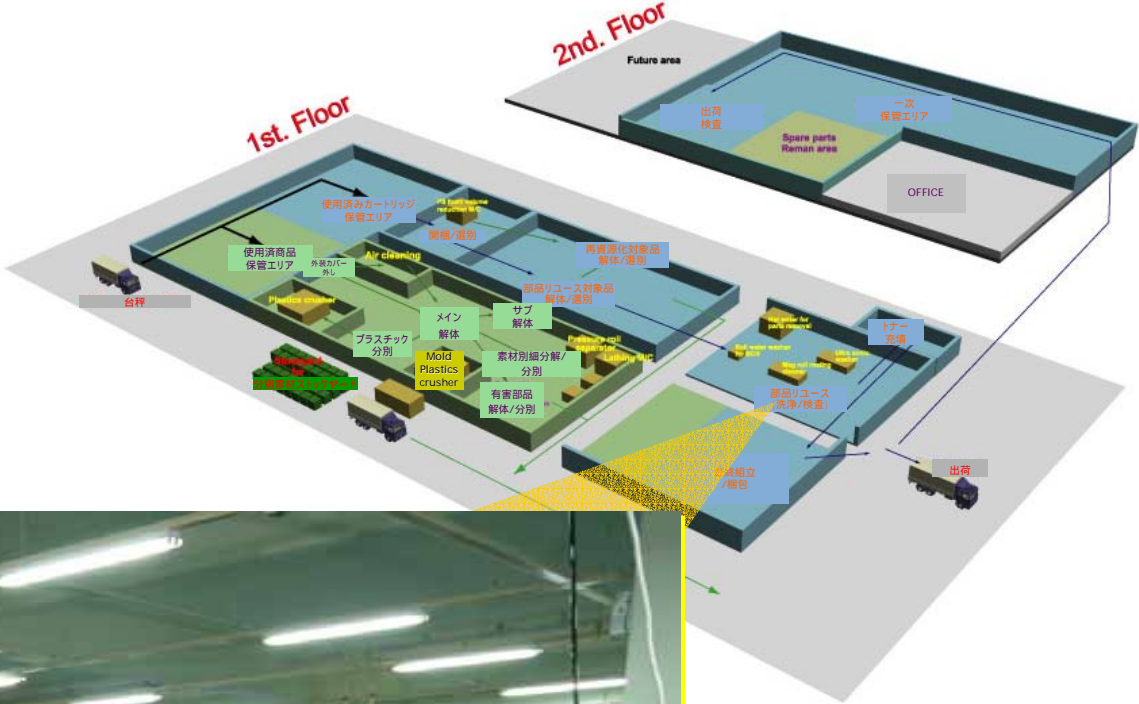
Equipment to Separate Plastics and Metals Automatically- Ecoland in Thailand



Disassembly and Separation area– Ecoland in Thailand

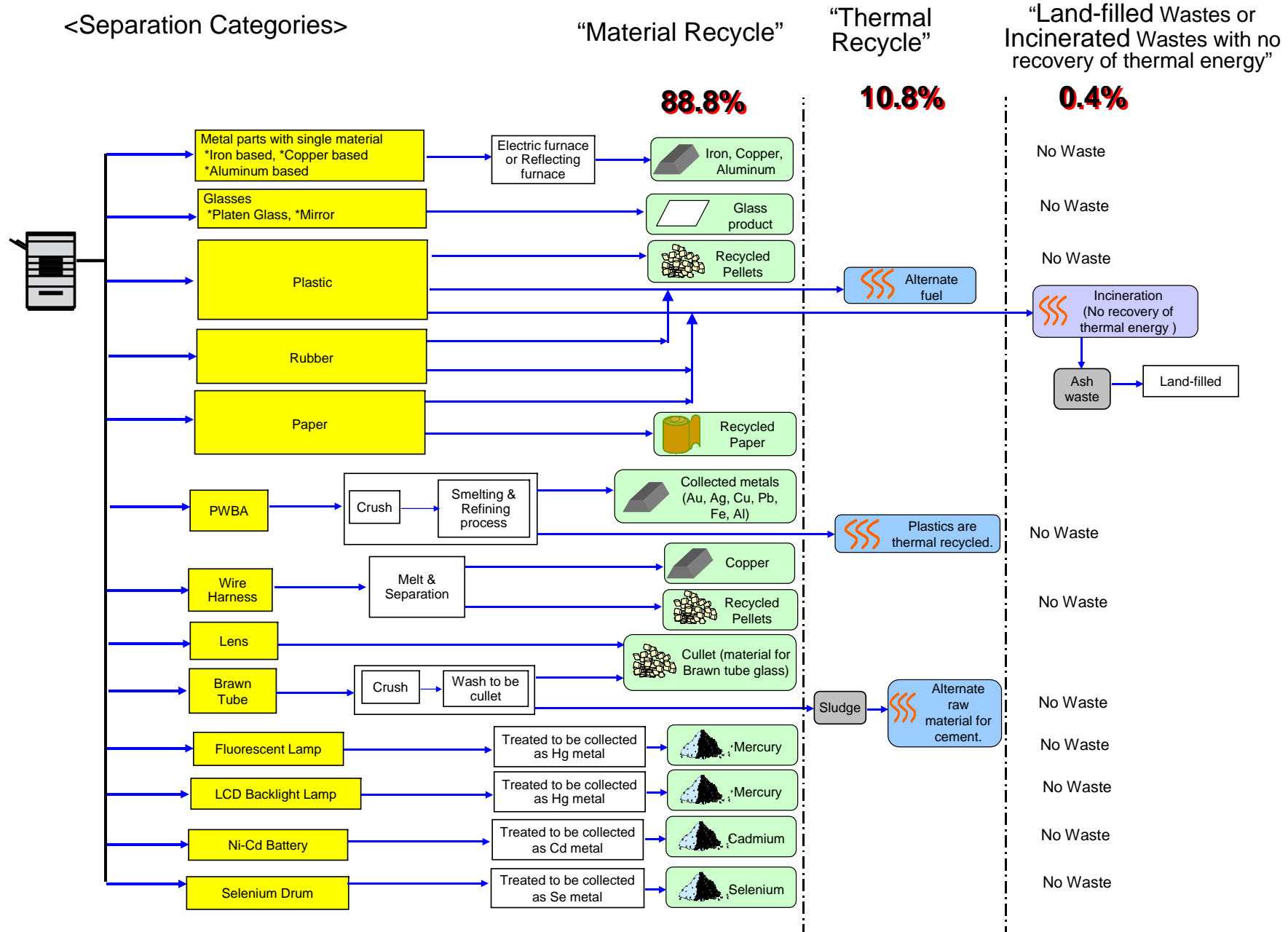


Parts Reuse Area of Cartridge – Ecoland in Thailand



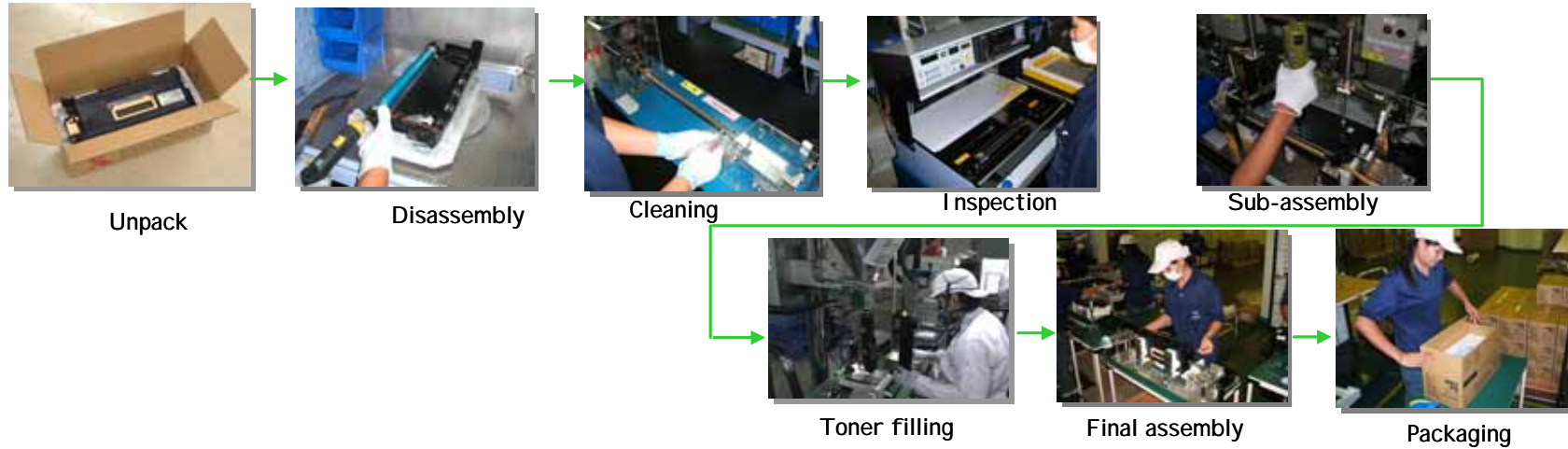
Recycling Flow of Used Xerox Office Equipment

By the network with recycling processors (12 partners in Thailand/Asia and 4 partners in Japan) who have excellent skills and technologies, materials can be recovered at high ratio.

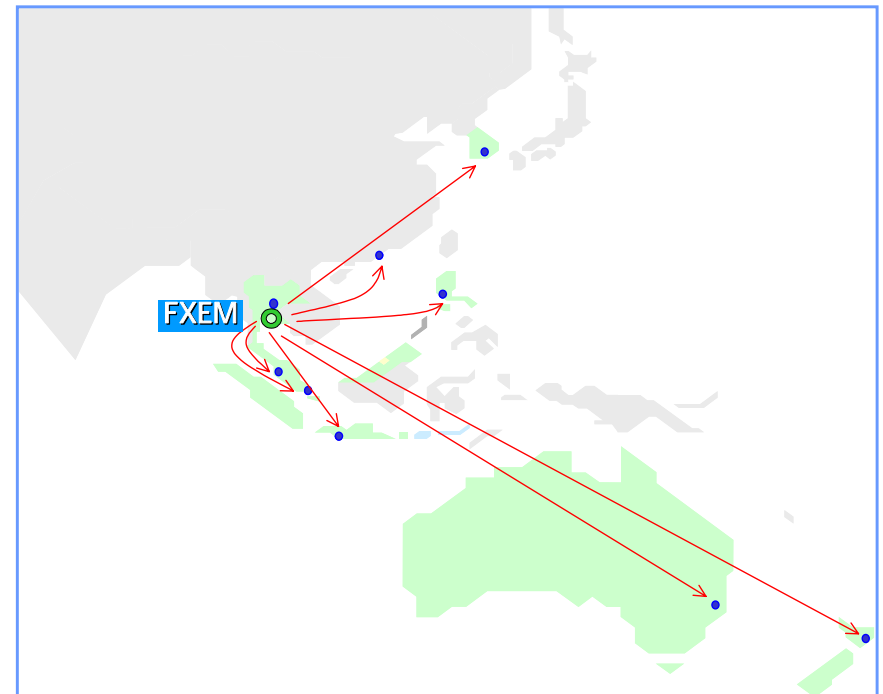
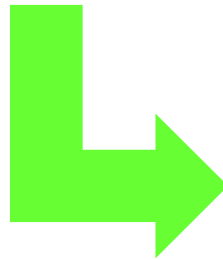


Remanufacturing of Used supplies (cartridge) at FXEM

"Quality Assurance of Same as Brand New" based on Fuji Xerox Standard

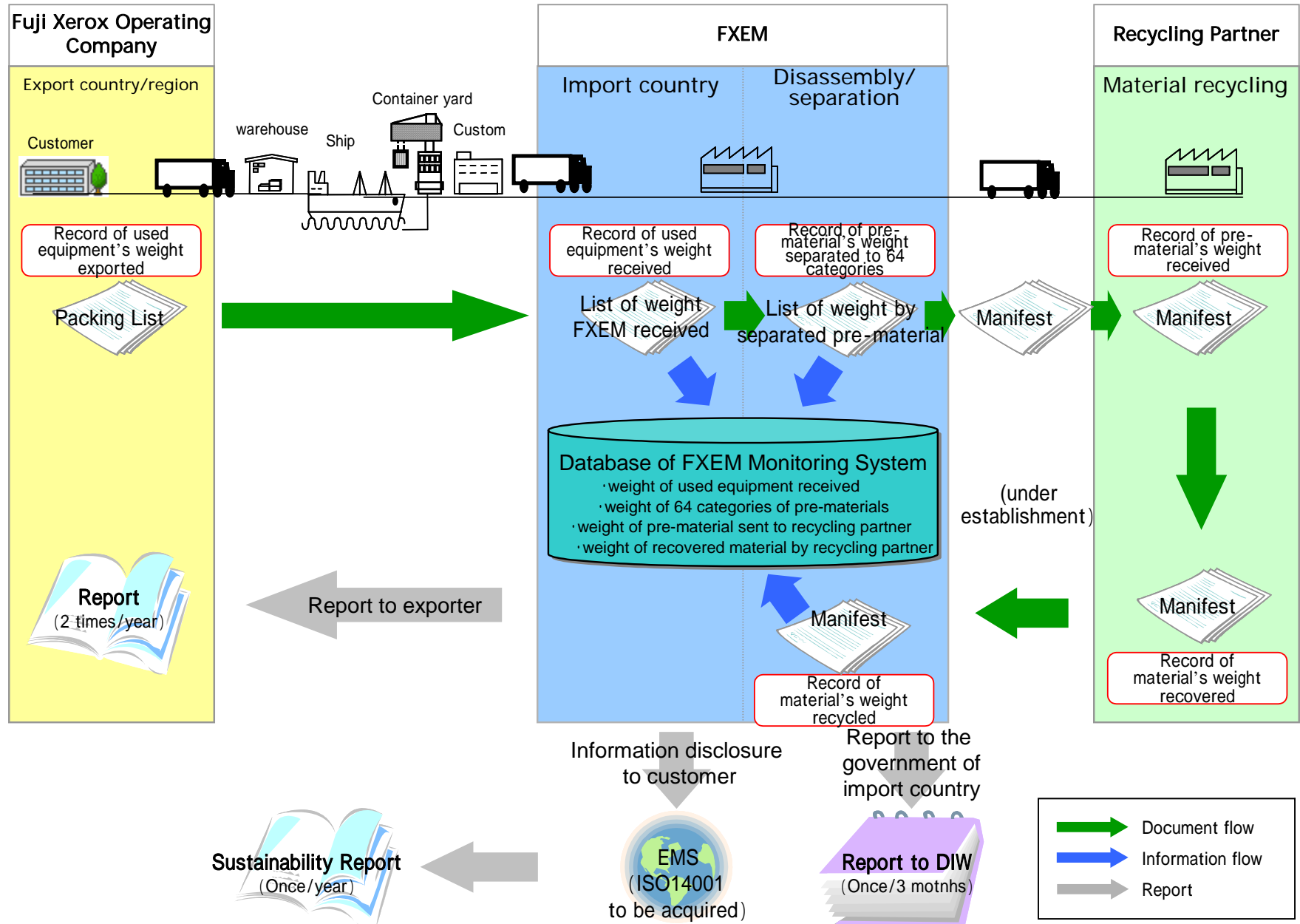


Exported to Operating Companies
(9 countries/region) of
Asia-pacific



Traceability

- 1) Closed loop system by Fuji Xerox (manufacturer)
- 2) Tracking system by weight
- 3) Manifest management Information disclosure



Achievements

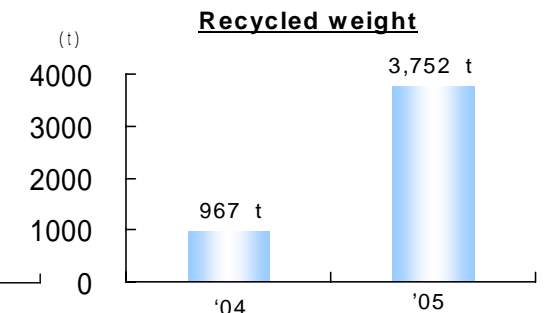
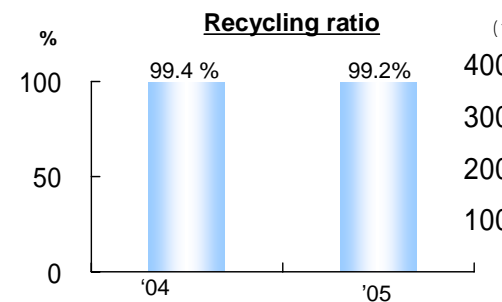
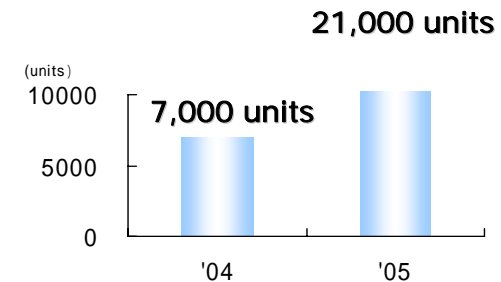
Establishment of integrated recycling system in Asia-pacific region

- Used office equipments/cartridges generated in 9 countries/region are transported to the integrated recycling site in Thailand and materials are recovered for “infinite zero landfill”

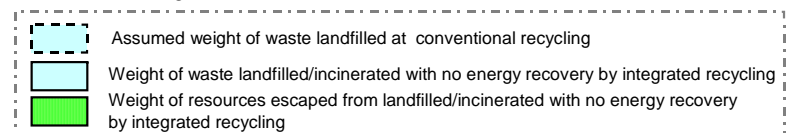
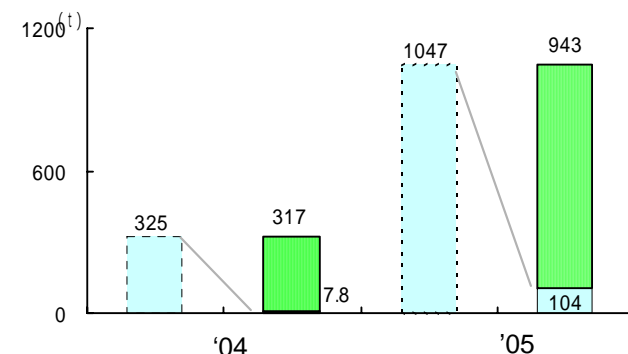
Reduced environmental impacts/improved management

- Reduction of environmental impacts (landfill ratio)
 - Landfill ratio : 25% 0.8% (2005)
 - Landfilled weight : 1,047 t 104 t (2005)
(weight calculated by assumed conventional treatment method)
- Proper treatment of parts containing hazardous substances
 - To be treated in Japan
- Tracking system established by manufacturer through product lifecycle enables to reduce risks such as illegal disposal

Received quantities of used office equipment

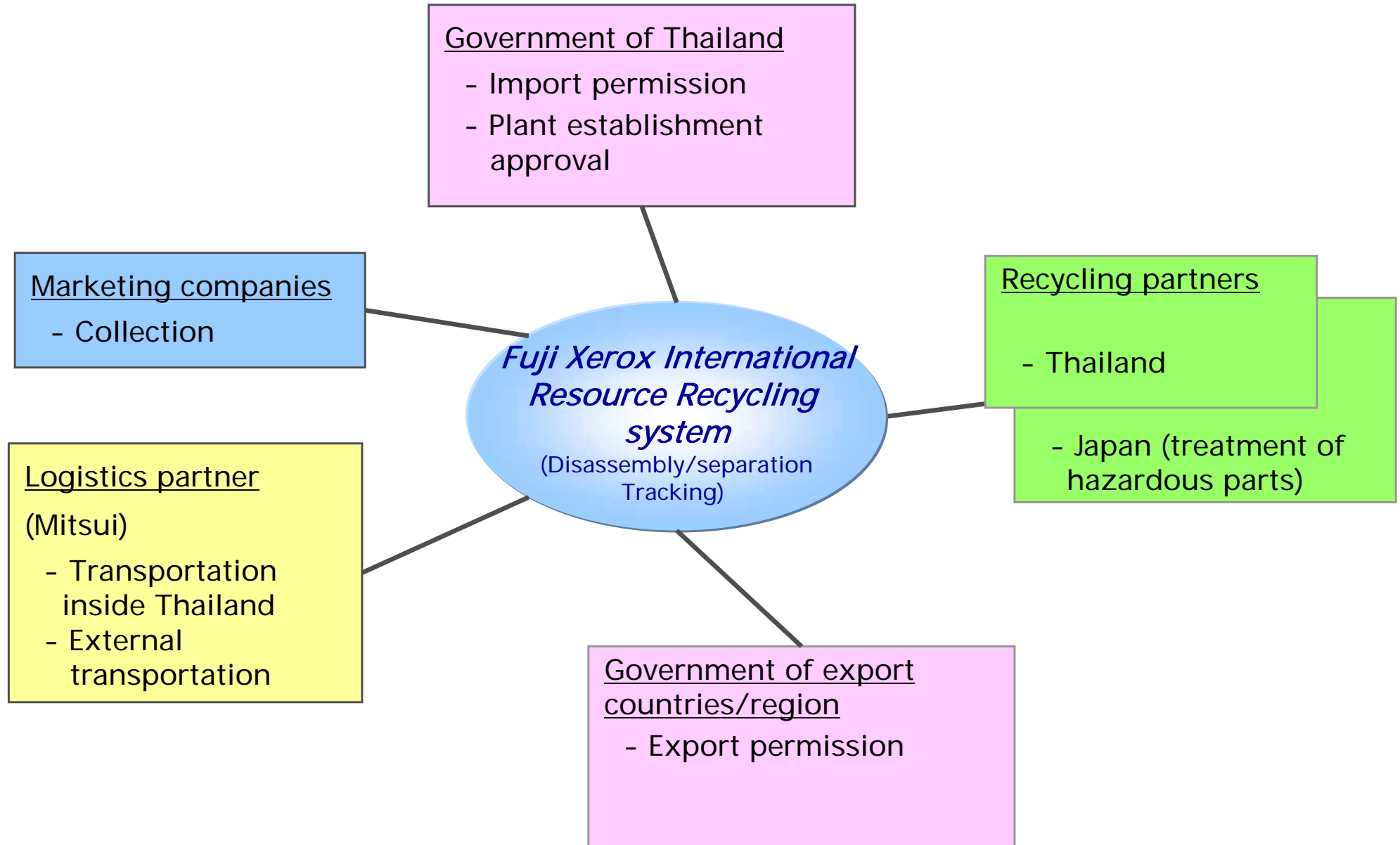


Weight of resources escaped from landfill by integrated recycle system



. Establishment of International resource recycling system

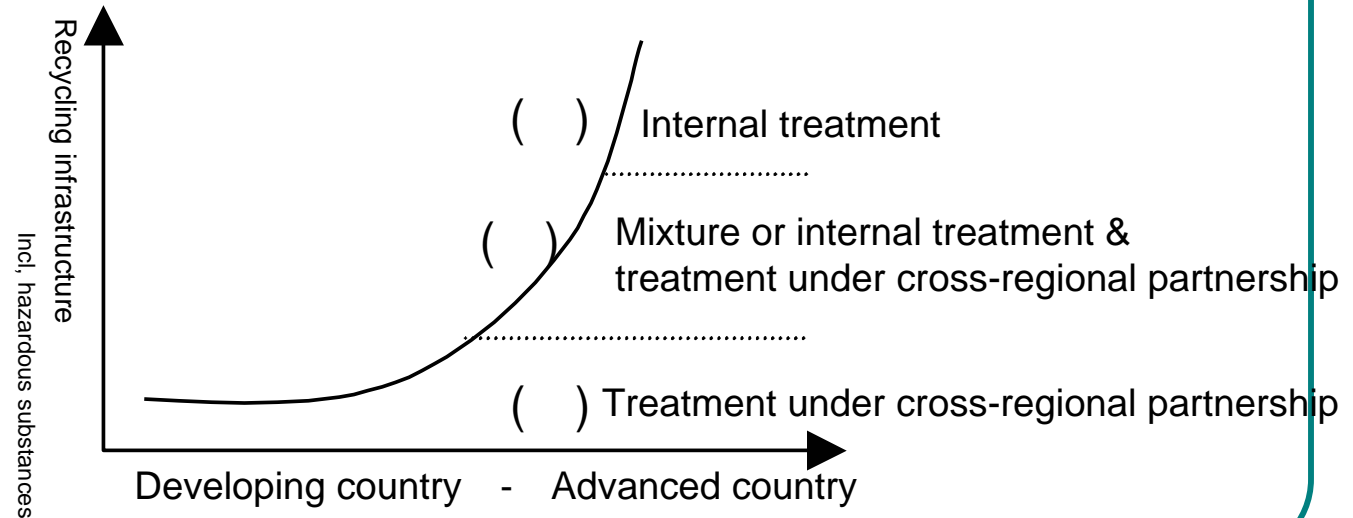
1) Key enablers-1: support by governments / collaboration between companies



. Establishment of International resource recycling system

1) Key enablers-2: necessity of cross-regional partnership

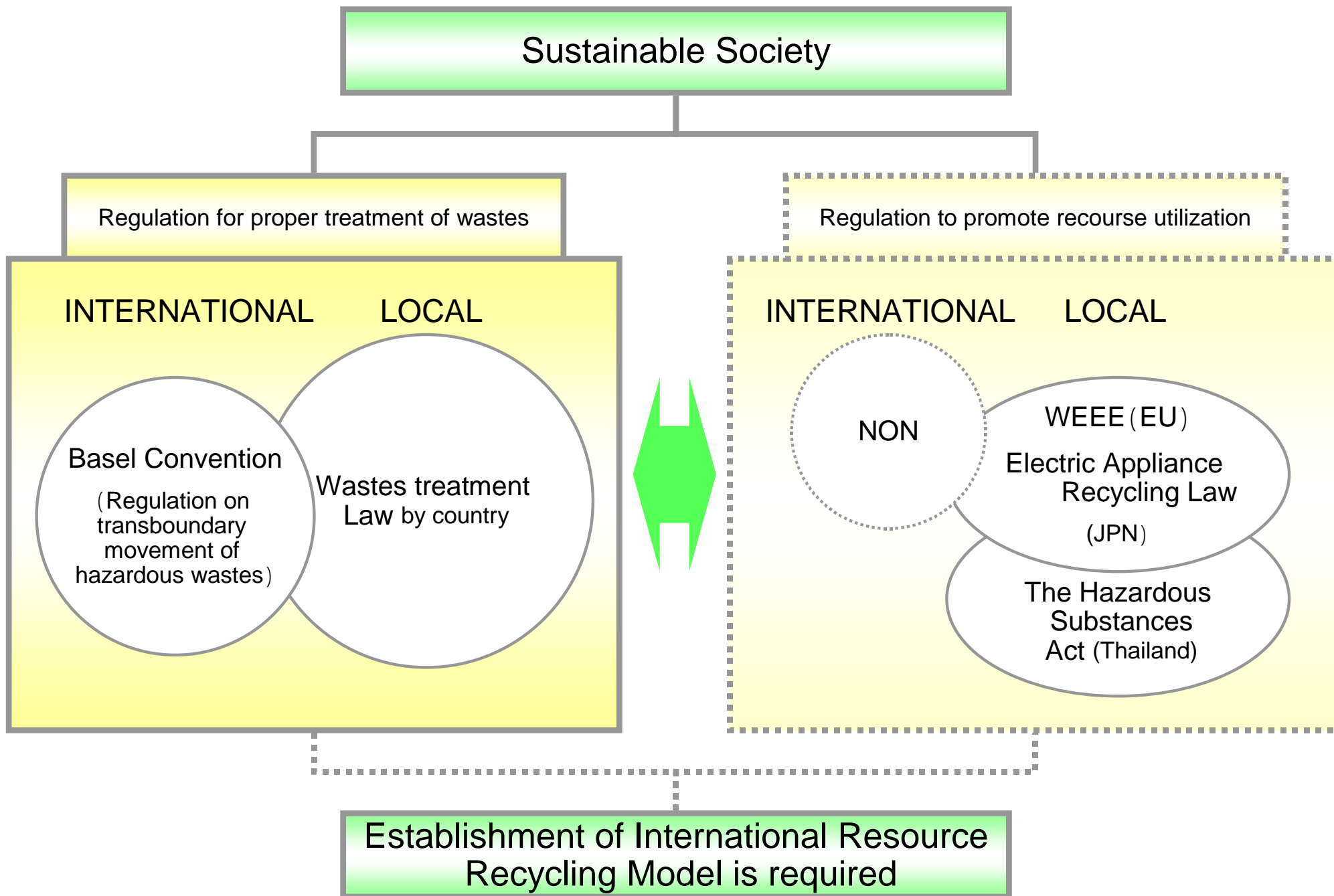
Resource recycling may require cross-regional partnership in some cases; proper treatment of hazardous substances are not available (technologies / system, e.g.).



Fuji Xerox case

- 16 recycling partners support the system. Some of the parts contain hazardous substances are to be treated in Japan, therefore, Fuji Xerox case is the pattern () of the above.
 - Recycling partners in Thailand:
 - 12 partners (including 6 Japanese companies)
 - Recycling partners of Japan/Asia : 4 partners

International laws/regulations on resource utilization



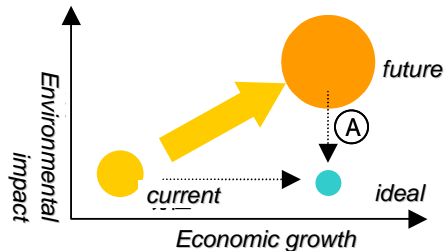
. Establishment of International resource recycling system

2) Conclusion

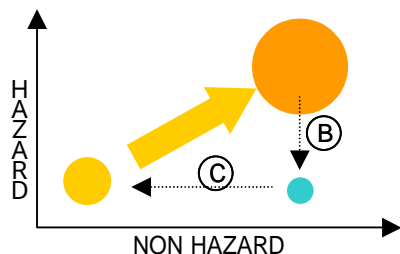
Asia-pacific region / China where economy has grown rapidly, environmental issues have become serious accordingly. Companies should take part in the activities to reduce environmental impacts utilizing their know how/ technologies.

Economic growth and environmental impacts

Environmental impacts are increased in accordance with rapid economic growth in Asia-pacific /China



On the assumption that increased environmental impact as waste (A), proper treatment of hazardous substances (B) and wastes contain hazardous substances (C) will be required.



Fuji Xerox case

- Established of international resource recycling system in Asia-pacific region
 - Established the system to collect used equipments in 9 countries / region
 - Achieved zero landfill in 9 countries / region in one time
- No increase on environmental impacts (A) even though market continues its growth.

- Established integrated recycling center in Thailand where "recycling at same quality of Japan" is available.
 - Material recycling ratio: 99.2%
 - Landfilled weight : about 1000t (assumption) at conventional recycling 104t
 - Recycling of the parts contains hazardous materials
- No increase of (B) (C)

- Thank you for your kind attention -

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