Japan's Experiences and Challenges on the Export of Used EEE for Reuse Purpose

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Control Targets of the Basel Act and the Waste Management Act

Defined by hazardous characteristics and disposal operations

Basel Act

Subject to control

Basel waste
(specified hazardous waste material, etc.)

Non-Basel waste

Examples

Used Printed Circuit Board (metal recovery)

Coal Ash (utilization for cement production)

Plastic scrap (material recycling)

Waste Management Act

Non-waste

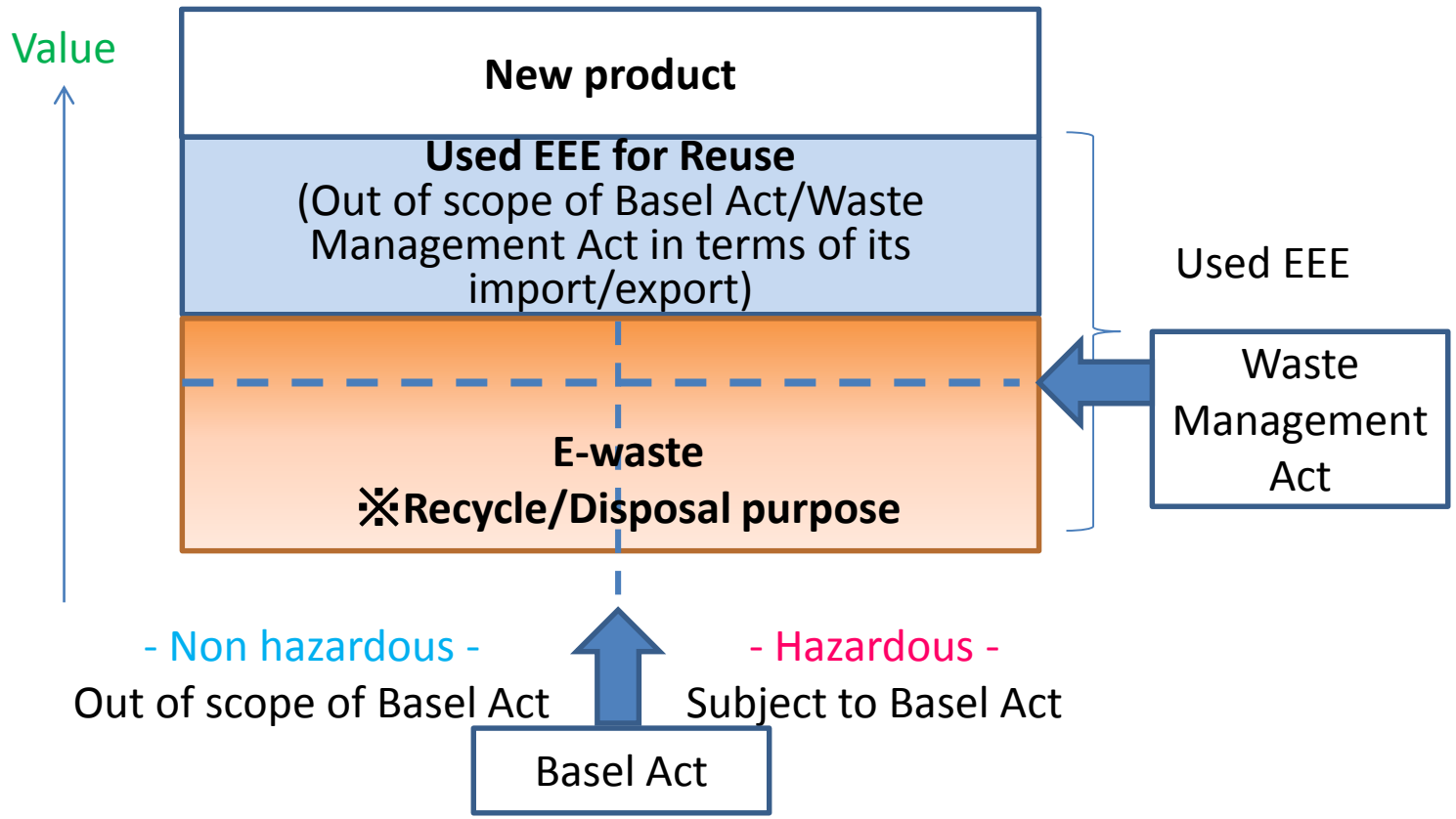
Waste

Non-waste

Subject to control

Defined by 5 criteria such as value, nature of an object and circumstance of discharge

E-waste and Used EEE for Reuse Purpose



- ✓ Used EEE for reuse purpose is out of scope of Basel Act/Waste Management Act in terms of its import/export.
- ✓ At Basel Act, used EEE aimed not for reuse but for recycle/disposal purpose is E-waste, regardless of its value.
- ✓ At Waste Management Act, among Used EEE not for reuse, distinguishing whether it is waste or non-waste will be judged in a comprehensive manner, based on its nature, trade value, etc.

"Criteria for Distinguishing Used EEE as Second-Hand Goods as Its Exportation"

- Guideline developed by MOE and METI, announced in September 2013, applicable since April 2014.
- For distinguishing clearly proper reuse-purpose goods from the one unsuitable for reuse (which could be regulated by Basel Act/Waste Management Act).
- Providing criteria to make exporters easily prove by themselves their export is appropriate therefore no export license on the basis of Basel Act/Waste Management Act is required.

“Criteria for Distinguishing Used EEE as Second-Hand Goods as Its Exportation”

<Need to be Checked>

1) Model years and appearance

⇒ Make sure the EEE is free from damage and is clean

2) Functionality

⇒ Make sure the EEE operates properly

3) Packaging and loading

⇒ Make sure the EEE is properly packaged, loaded and stored

4) Facts related to transactions involving second-hand goods

⇒ Make sure transaction-related facts can be proved with contracts and other documents

5) Second-hand goods market

⇒ Make sure the EEE will be sold for reuse purposes in destination countries

Difficulties to Judge Used EEE for Reuse or Not

○ “Hazardous waste” which is subject to the regulation of the Basel Convention is the item exported/imported for disposal operations (=final disposition, recycle or recovery) listed in the Annex IV of the Convention.

○Second-hand items for reuse purpose do not fall within this scope, therefore they are exempt from the regulation in principle.

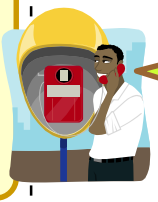
Recently, however, there are many cases of returned cargo of used EEE exported as second-hand goods for reuse purpose, claimed by importing countries to be “hazardous waste” which should be regulated by the Basel Convention.

Therefore, some sorts of used items are treated with the preliminary consultation (non-mandatory, administrative service) in order to examine beforehand if they are sure to be regarded as reuse purpose, also in the importing country properly.

Preliminary Consultation for Export

Consultors (Exporters, Customs clearing agent, etc.)

(Coverage)	(Contact)	(Documents to be submitted)
Basel Act (Metal scrap, Plastic scrap, used battery, used pinball/slot machine, spent catalytic agent, used EEE, used automobile parts, etc.)	**Japan Environmental Sanitation Center (JESC)**	**<Required>** - Consultation form for Basel Act - Contract, Invoice - Domestic transaction slip (billing statement, receipt, etc.) - Photo of the item (sent by e-mail or ordinary mail) **<On request>** - Result of component analysis of the item - Photo of sample for analysis - Company profile - Licenses of country of destination - Information list of used EEE (Manufacturer, model, year, functionality) (for direct
Basel Act Other than those above	**Environmental Protection Guidance Office, METI**	
Basel Act **Waste Management Act**	**Regional Environment Offices, MOE**	**<Required>** - Check sheet for export (only for export consultation) - Consultation form for Waste Management Act/Basel Act - *Flow chart of the item and financial transaction* - Contract, Invoice - Color Photo of the item (to check its condition) - *Documents to verify generating and disposition process of the waste (process chart, facility photo, company catalogue, etc.)* **<On request>** - *Licenses based on the Waste Management Act* - Result of component analysis of the item - Photo of analysis sample - Licenses of country of destination etc. etc. ** Italics indicate documents related to Waste Management Act*



I need a pre-consultation for my export application…!

Used EEE Export Intended for …

Well, evidently, scraps.

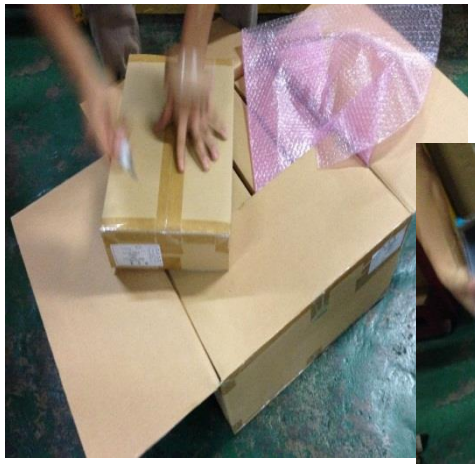
Old… Could they be used?

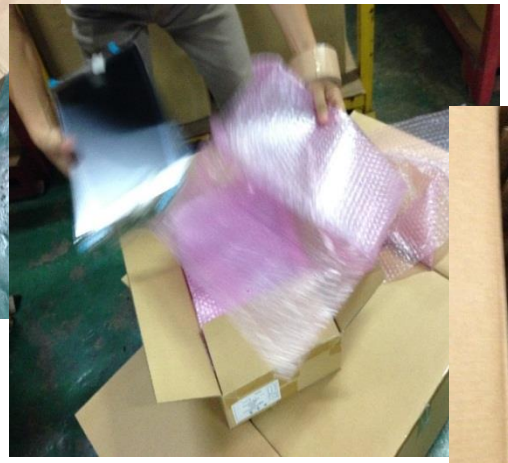
Used EEE Export Intended for …

Old? Functioning?
Any evidence for
being reused?

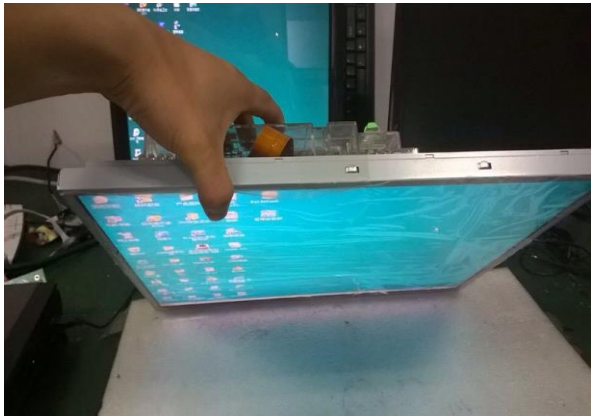
Be careful, it's going
to be broken… or
already broken?

Used EEE Export Intended for …





Hmm, fairly well wrapped and packaged…?



Yes, functioning!

Increasing Returned Cargo from Asian Countries

Recent trends of our receiving notification of illegal shipment from importing county

FY	Number of cases	Country (Number of cases)	Claimed Item (Number of cases)
2010	0	—	—
2011	0	—	—
2012	7	Hong Kong (2), Malaysia (2), Nigeria (2), Korea (1)	Used EEE for re-use purpose (6), Mixed metal scrap (1)
2013	5	Hong Kong (2), Malaysia (1), Indonesia (1), Macau (1)	Used EEE for re-use purpose (3), Used automobile parts (1)
2014	9	Hong Kong (8), Thailand (1)	Used EEE for re-use purpose (7), Used battery (2), Mixed metal scrap (1)
2015 (as of October)	12	Hong Kong (14)	Used EEE for re-use purpose (12)

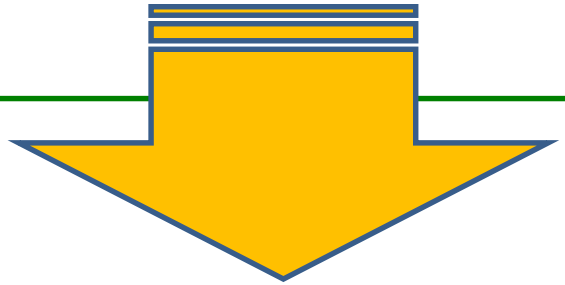
For Mitigation of Risk of Returned Cargo

- In Japan, in order for proper export of Used EEE for reuse purpose, exporters should comply with the guideline "Criteria for Distinguishing Used EEE" so that they could avoid risks of their cargo being returned as illegal export.
- However, there are still some unclear import regulations in the destination county, which is difficult for others to get to know due to lack of information registered at the Secretariat of Basel Convention, or in any formal way of the announcement.
- It is government's responsibility to provide exporters of their country with proper, internationally-recognized guideline in order to mitigate the risks. For that, we will consider to properly update our guideline and also cooperation by destination country government will be essential to make available information on their import regulations to the public.

International Expectation for Prevention of Illegal Export of Used EEE by Disguise of Reuse-Purpose

At the COP12 held in May 2015 in Geneva:

- Reached agreement to **adopt E-waste Guideline** (to distinguish between waste and non-waste) on the interim basis
- Each State Party is expected to utilize this guideline at home, in order to prevent illegal exports and assure proper reuse-purpose export



Our "Criteria for Distinguishing Used EEE" will also need to be **reviewed and revised** according to this newly-adopted E-waste Guideline.

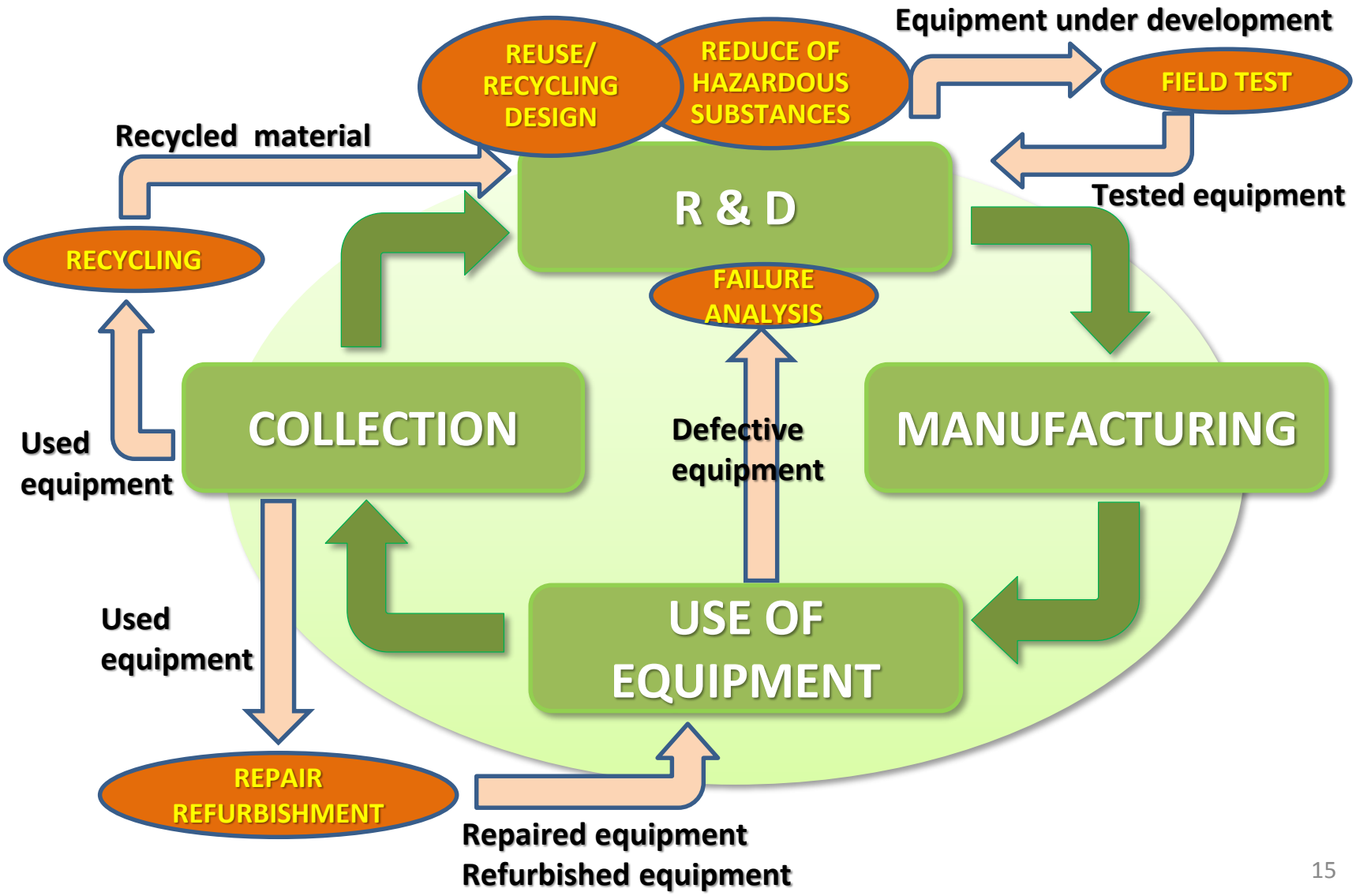
…… What has been already covered, what has not been?

International Expectation for Prevention of Illegal Export of Used EEE by Disguise of Reuse-Purpose

■ We are going to consider to include in our "Criteria for Distinguishing Used EEE" below items in red and underlined:

Requirements for the case of export/import for direct reuse	1. Copy of the Invoice and contract; 2. Signed decralation by exporters/importers indicating that used EEE has been tested, fully functional and is destined for direct reuse; 3. Declaration by exporters/importers to comply with rules and regulations of all the countries involved; 4. Sufficient packaging and stacking of the load in order to be protected against damage during transportation and loading/unloading.
Requirements for the case of export/import for direct reuse after repair, etc.	(In addition to the above 3. and 4. requirements being satisfied,) 1. Valid contract between exporter and facility to assure to conduct repair etc. and ESM treatment of the residual hazardous waste generated through the repair, etc; 2. Provisions regarding allocation of the responsibility among exporter and facility throughout the whole process from export to the completion of repair, etc. in the contract.
Issues need to be tackled towards COP13	✓ Residual life of the Used EEE ✓ Treatment of CRTs ✓ Conditions on the treatment of residual hazardous waste generated through repair, etc. in developing country

Industry Initiatives for Resource Efficiency
～Electrical and Electronic Manufacturers in Japan～



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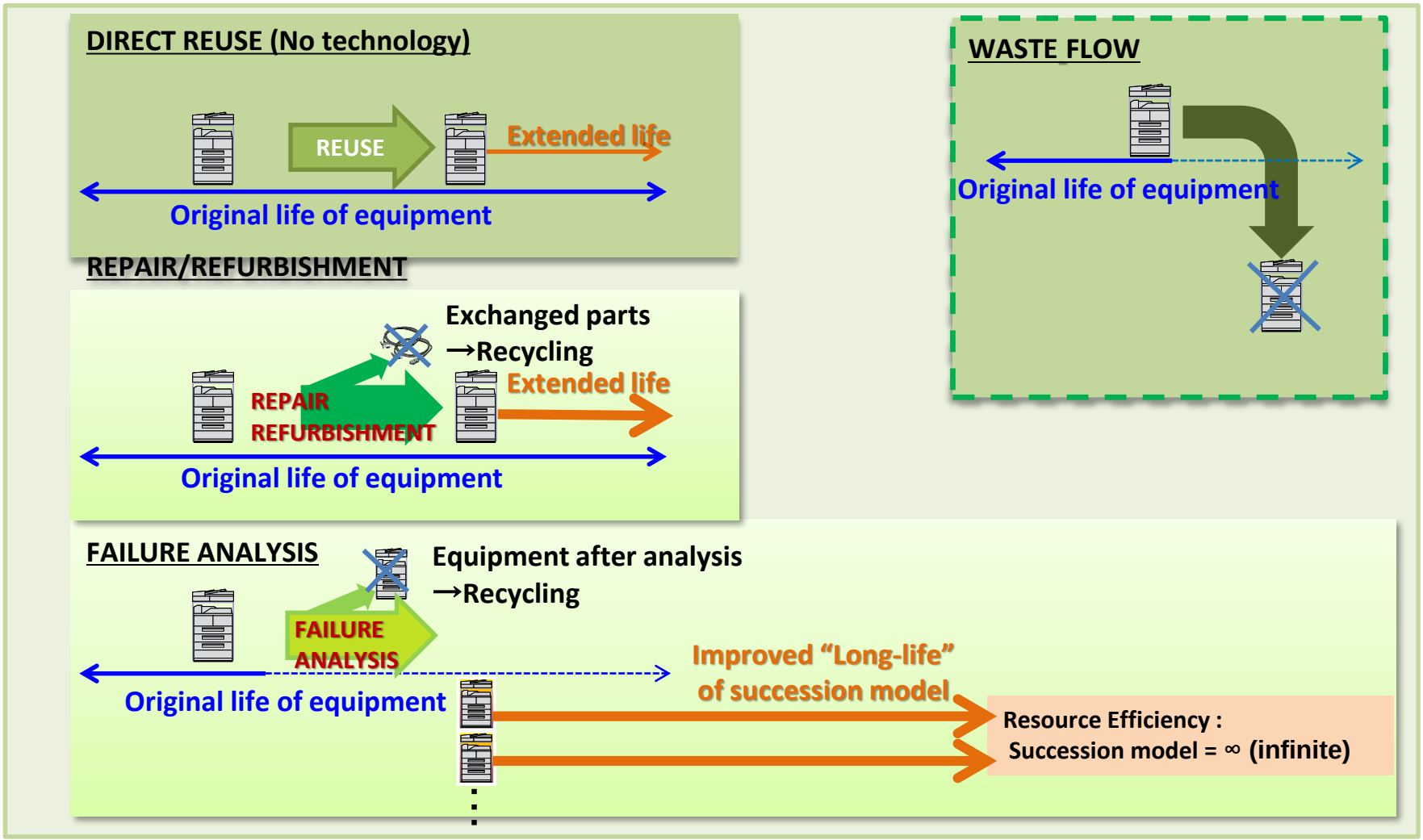


Failure Analysis & Field Test

MITSUBISHI ELECTRIC

Failure Analysis

Defective equipment
(countries of sale)

Identify defective part

Defective Equipment

Urgent

Quality management
(Importing country)

Verification of defective part → Investigation of failure cause → Counter-measure

Field Test

Field test to collect data
under different conditions
(in some countries)

Climate | Residential structure | Life style

Equipment under development

Tested equipment

R & D
(Importing country)

Data analysis on parts and performance → Design → Improvement of performance

	Failure analysis	Field test
Phase	Use of equipment	R&D
Scope (Market)	Existing market	Untapped market
Urgency	Urgent	Not urgent
Operation	Verification of defective part and investigation of failure cause	Analysis of influence on equipment and operating condition

Equipment under Field Test -Air-conditioner-

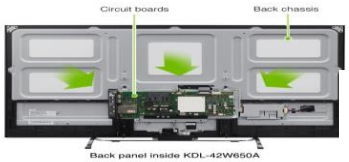
Consumer's house
(Indoor unit)

Sea side (Outdoor unit)

Resource Saving & Design for Recycling/Reuse

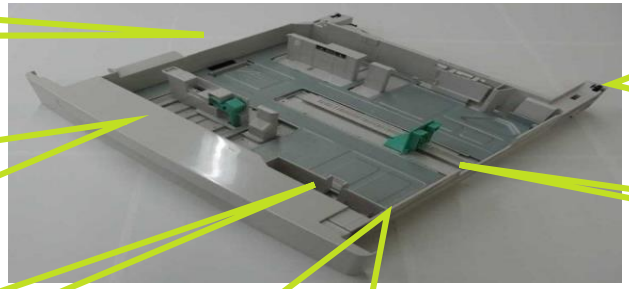
SONY BRAVIA™ TVs: Trying the limits in slimness and resource efficiency

- **70% thinner** than previous models by clustering circuit boards that used to cover the entire panel below the center
- **20% lighter** than previous models by grinding down and punching holes in the back chassis
- **Fewer screws (20 -> 4) and easy removability** by tight-fitting construction
- **Stand doubling as a wall-mount bracket** by reducing the weight of the body



FUJI XEROX Paper tray of multifunction printer: Making various efforts for reuse

Commonalized tray
Reuse for other/succession models facilitated by commonalizing the chassis

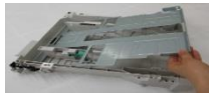


Anti-scratch/abrasion
Tray prevented from scratch/abrasion by putting a roller on the contact part as well as by changing the paper layout from the edge to the center

Separable pullout handle
Reuse of chassis facilitated by separating a pullout handle

Spare holes
Product life extended by having spare screw holes

Easy disassembly
Chassis and metal plate easily disassembled from the upper side



Reinforcement
Deformation prevented by reinforcement for weak part

Reduction of hazardous substances
Plastic part free from brominated frame retardant

RICOH Multifunction printer: Using electric furnace steel made of 100% iron scrap

- Change from iron ore to **100% iron scrap** achieving high quality requirements for thinness, electrical conduction property and bending workability
- **First office equipment manufacturer** to develop and expand electric furnace steel sheets with quality required for office equipment parts
- Reduction of new resources input by **50-60 weight %**

Part using electric furnace steel made of 100% iron scrap

Repair/Refurbishment & Residues Treatment

RICOH

Repair/Refurbishment

1. Receive
2. Storage
3. Removal of covers
4. Interior cleaning

5. Exterior cleaning
6. Parts exchange
7. Assurance
8. Packaging
9. Shipping

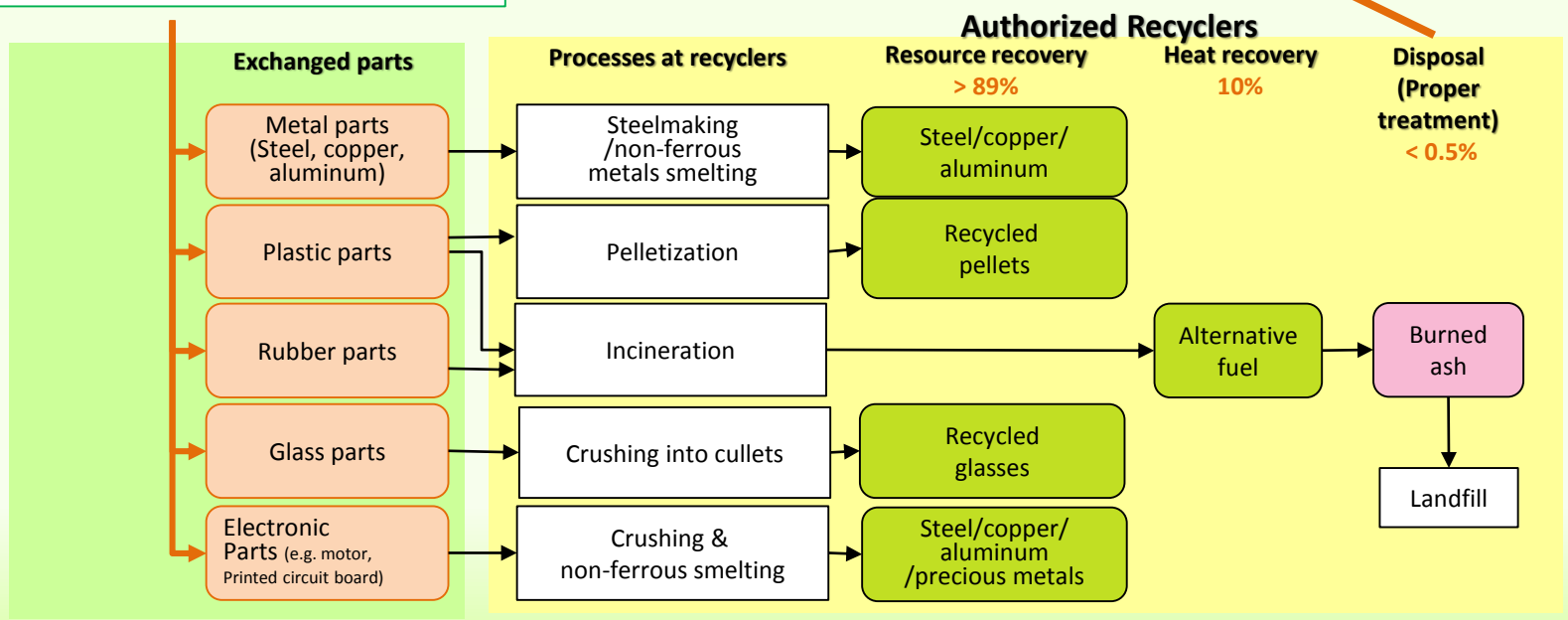
Repair/Refurbishment & Residues Treatment

FUJI Xerox

Residues treatment

Exchanged parts (non reusable) become waste in the disassembly process

Little hazardous waste is generated from equipment compliant with applicable chemical regulations worldwide



Thank you for your attention!

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