MERVA



EU-Japan Centre for Industrial Cooperation

日欧産業協力センター

Waste Management and Recycling in Japan Opportunities for EU SMEs

Christine Yolin, MINERVA Visiting Fellow Tokyo, 29 September 2015

Outline

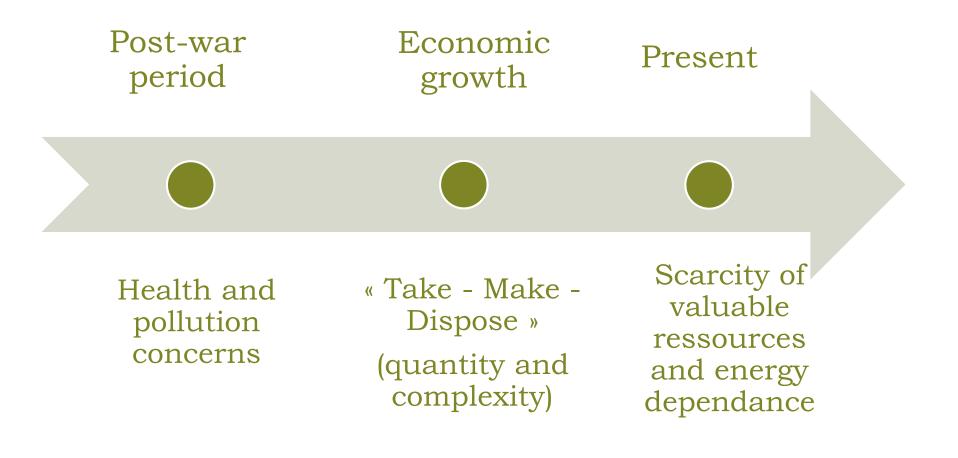
• **Targets**: EU SMEs, support organisations

• Objectives:

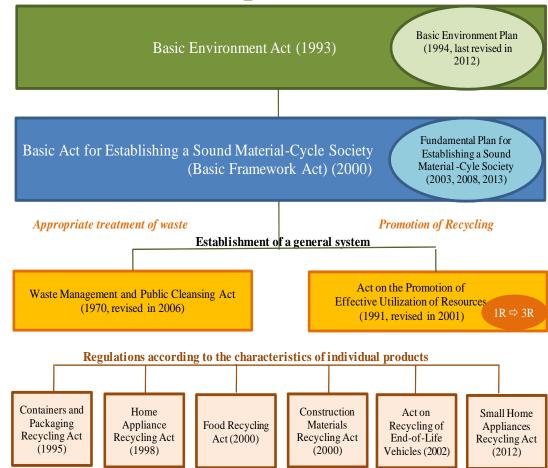
- Give an overview of the Japanese waste market
- > Identify opportunities for EU SMEs
- Formulate recommendations
- Methodology: Desk research, Interviews, Factory visits

1. Overview of waste management and recycling

Legislation 1



Act on Promoting Green Purchasing (2000)



Legislation 2

Legal Framework in Japan

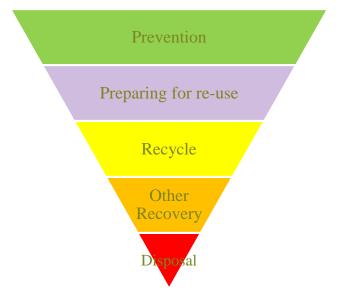
Main source: History and Current State of Waste Management in Japan, 2014, MoE

Legislation 3

> 3Rs, Waste Hierarchy, LCA

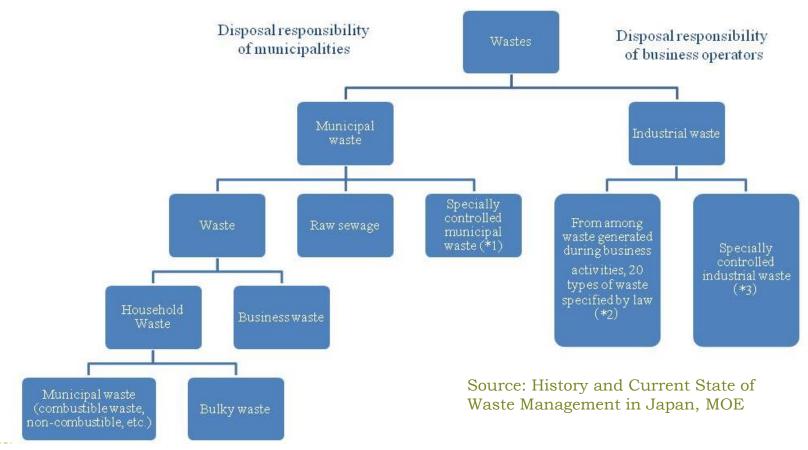


Source: METI

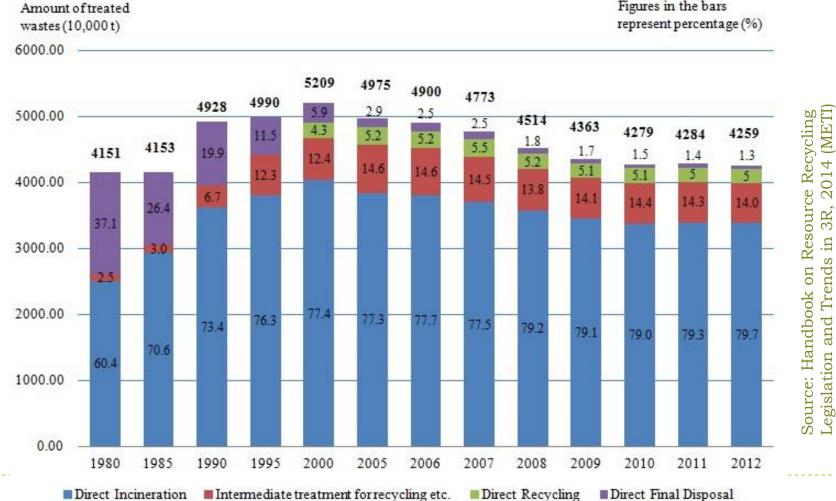


• **Circular economy** : using waste as a resource

- Categories of waste
- Responsibilities' sharing



Municipal Waste



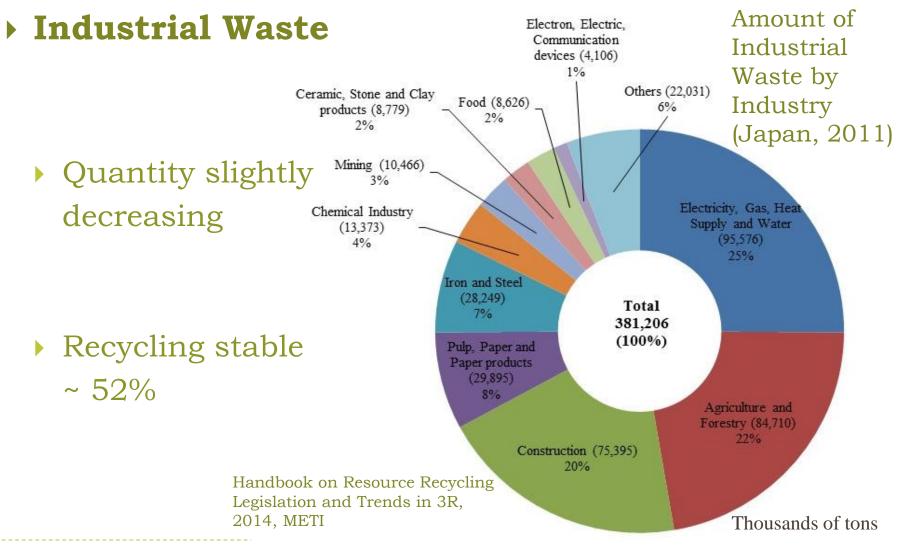
Figures in the bars

2014 (METI)

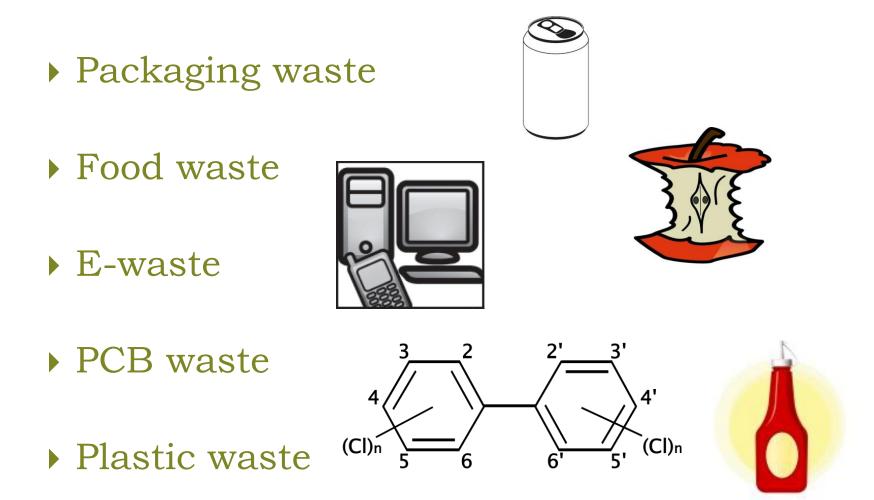
- Competitive landscape
 - Small local companies (ex. collection)
 - Large groups
 (ex. plant construction)

Main players 2012 – 2014 by supplier Others Kobelco 8% 6% Hitz MHI 30% 7% Ebara 9% **NSENGI** JFE 6% 13% KHI 10% Takuma 11%

Source: Vaccani European Market Share Analysis of Thermal Waste Treatment Plants, 2015 Edition (provided by JEFMA)

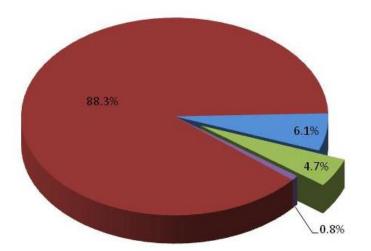


Specific waste streams



Waste as energy source

- (Renewable) energy in Japan
- Biomass Strategy
- Feed-in Tariff



Incineration

Conventional Thermal (Coal, Natural Gas, Oil, etc.) Large-scale hydro Renewables Nuclear

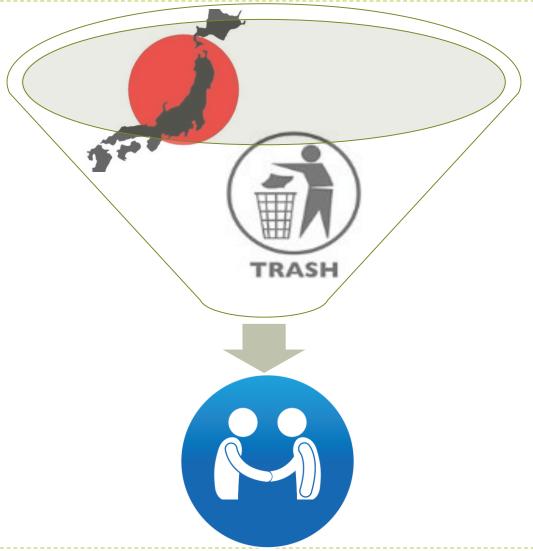
Overall energy generation in Japan, in FY2013, by source - Source: JFS

Concrete examples of waste management in Japan

- « Tokyo Model »: Clean Authority of Tokyo (CAT23)
 - Intermediate processing in Tokyo 23 ward
- Mitsubishi Material Corporation
 - Aluminum « Can to Can » recycling system
- Ishizaka Sangyo
 - Industrial Waste (Construction)
- Programs for the creation of « New-Towns »
 - Eco-Towns, Biomass Cities, etc.

2. Opportunities and Challenges of the Japanese (waste) market





Opportunities 1

 Opportunities of the Japanese market in general

- World's 3rd largest economy
- Good business environment
- Long-term relationship with partners, smooth collaboration
- Quality reference
- Foothold for the rest of Asia



Opportunities 2

Opportunities of the Japanese waste market

- Resource scarcity & Energy dependence
- Governmental support (FiT, New-Towns)
- Public awareness regarding environment and waste
- Trained workforce
- Good IP protection
- Good image of Europe



Opportunities 3

Business Opportunities

- Biomass
- Partnership for research for the recovery of strategic materials
- Machinery and equipement
- Innovative products adapted to the Japanese market
- Niche markets, ex. Solar Panels
- Incineration (W2E, bottom ash)



Challenges 1

Challenges of the Japanese market in general

- Cross-cultural barriers
- Domestic vs. Foreign made
- Risk-averse
- High demand for quality
- After-sale service
- Need a network and references
- Long decision process



Investment in finance, time and human resources

Challenges 2

Challenges of the Japanese waste market

- Mature market
- Strong domestic players
- Organization and established practices
- Waste quantity is decreasing
- Intermediaries
- Public procurement



3. Recommendations

Recommendations to EU companies 1

General recommendations

- Use support services available
- Find the right partner and rely on him
- Do not spare on a good interpreter
- Build a network
- Be visible
- Long term strategy including finance and human resources



Recommendations to EU companies 2

Sector specific recommendations

- Convince with hard facts, organize product demonstrations and factory visits
- Certifications, references
- New-town programs
- Presence in Japan, especially maintenance and after-sale service
- Synergies



Recommendations to support organizations 1

- Services
 - Networking
 - Fairs & Exhibitions (N-EXPO)
 - Communication



Recommendations to support organizations 2

• Topics for research or cluster missions

- Biomass, esp. from wood
- Recovery of strategic materials
- Circular economy, with a focus on eco-design
- Partnership to approach third country markets



Recommendations to support organizations 3

Topics of discussion between Europe and Japan

- Import/Export of waste
- Collection and sorting system
- Pollution control



- Identification mark on packaging
- Exchange of best practices (circular economy, food loss reduction, etc.)



Conclusion

- To understand: System based on land scarcity and responsibility of the waste generator
- <u>Main opportunities</u>: Resource scarcity & Energy dependence and Government & Public Support
- <u>Main challenge</u>: Mature market
- <u>Main sectors</u>: Biomass, Urban mines (R&D), Niche markets
- <u>Market-entry</u>: Be prepared (strategy + investment) and find a good Japanese partner

Thank you for your attention

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