

The Asia 3Rs Conference

E-Waste Management : Thailand Experience



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**Mita Conference Hall ,Tokyo, Japan
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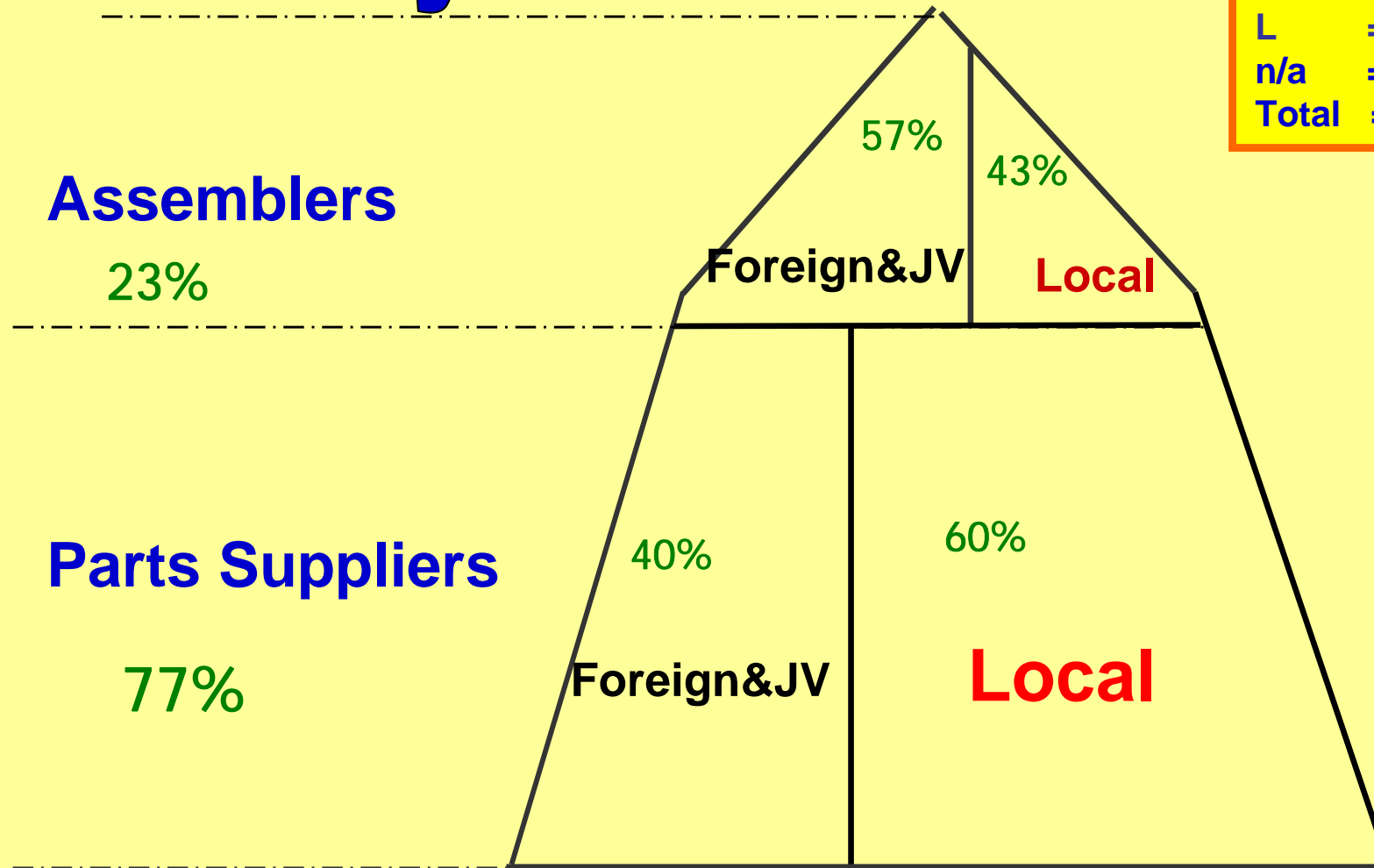
Outline

- **Thailand E & E Industry Overview**
- **Existing E-waste Management and Related Cap.Building Activities**
- **Conclusion**

Thailand : E&E Business Perspective

	Export (B.bht.)					
	01	02	03	04	05	06/8
Electrical	379.08	417.40	447.56	542.06	543.58	373.56
Electronics	653.57	647.33	718.15	789.27	891.15	658.12
Grand Total	1,032.96	1,064.00	1,165.96	1,331.10	1,434.86	1,031.39

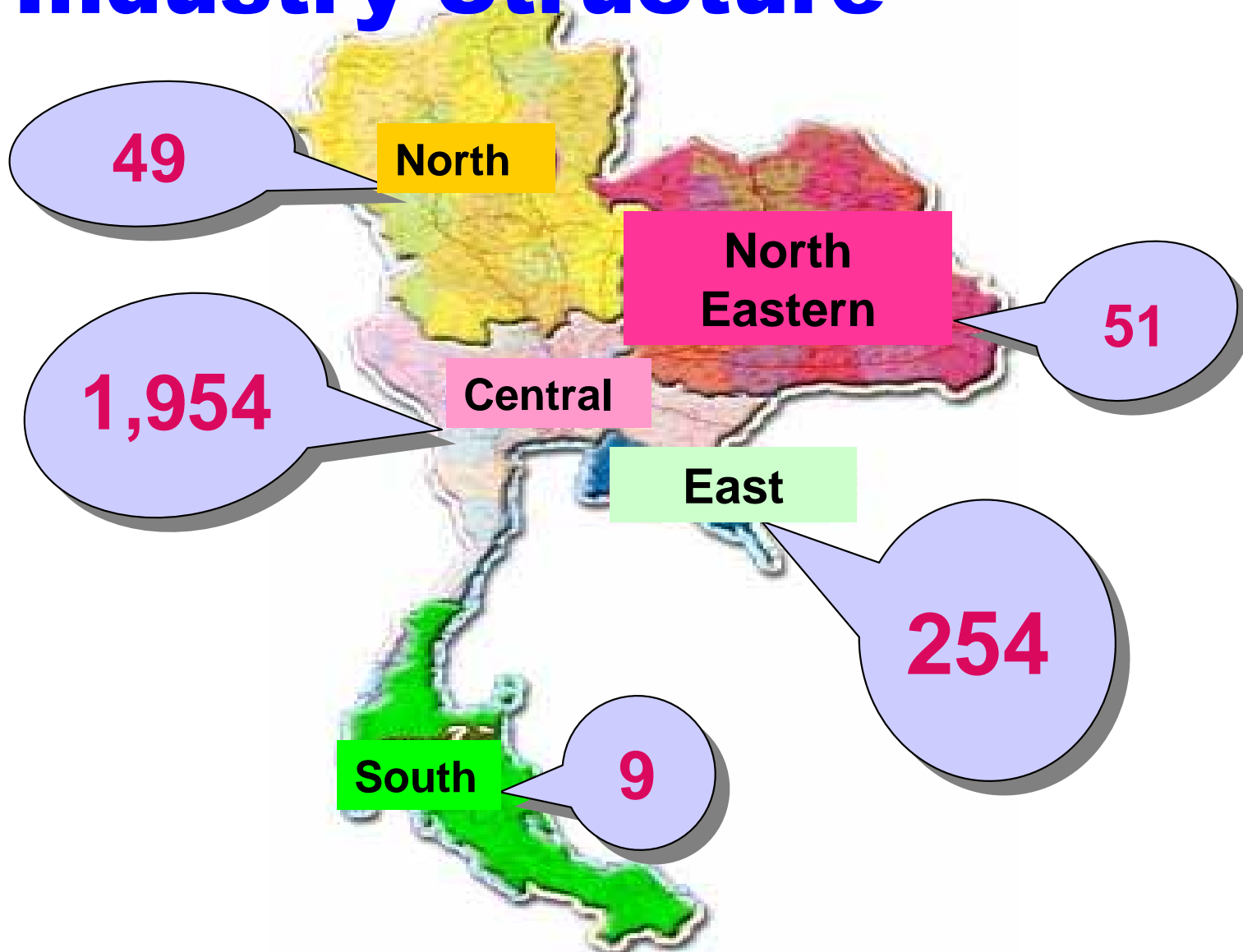
E&E Industry Structure



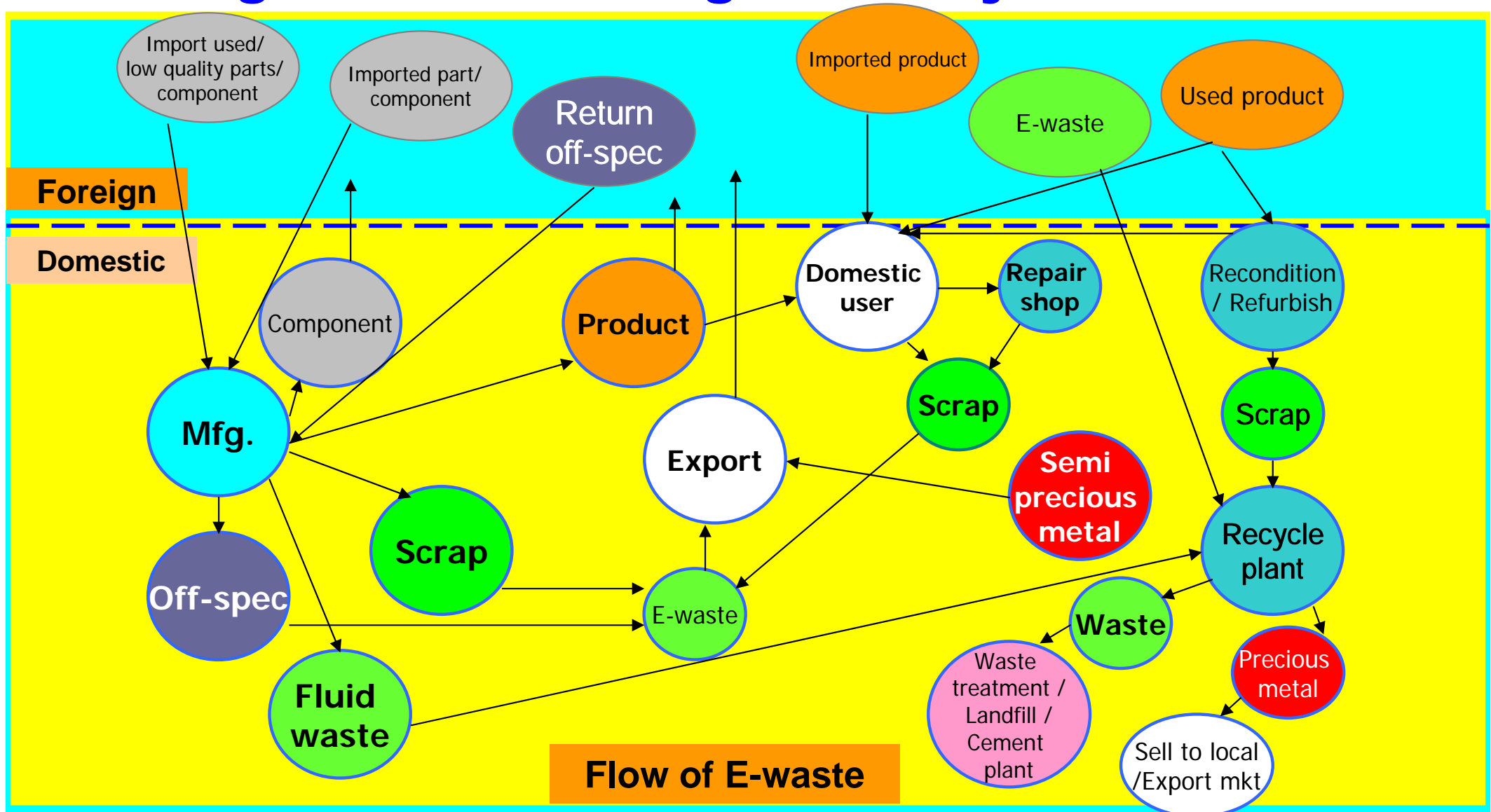
No. of Factories

S	= 1,576
M	= 322
L	= 240
n/a	= 121
Total	= 2,259

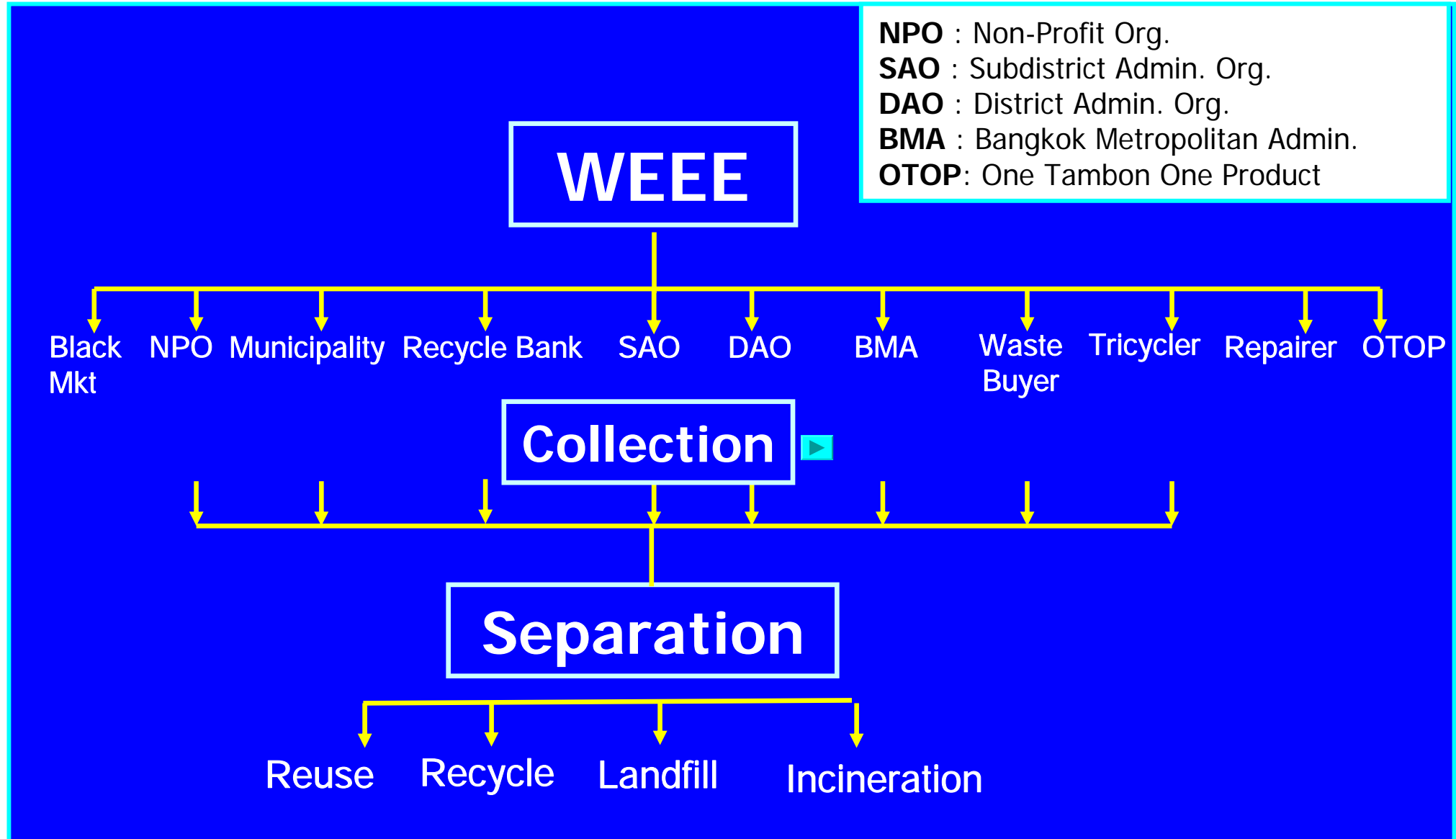
E&E Industry Structure



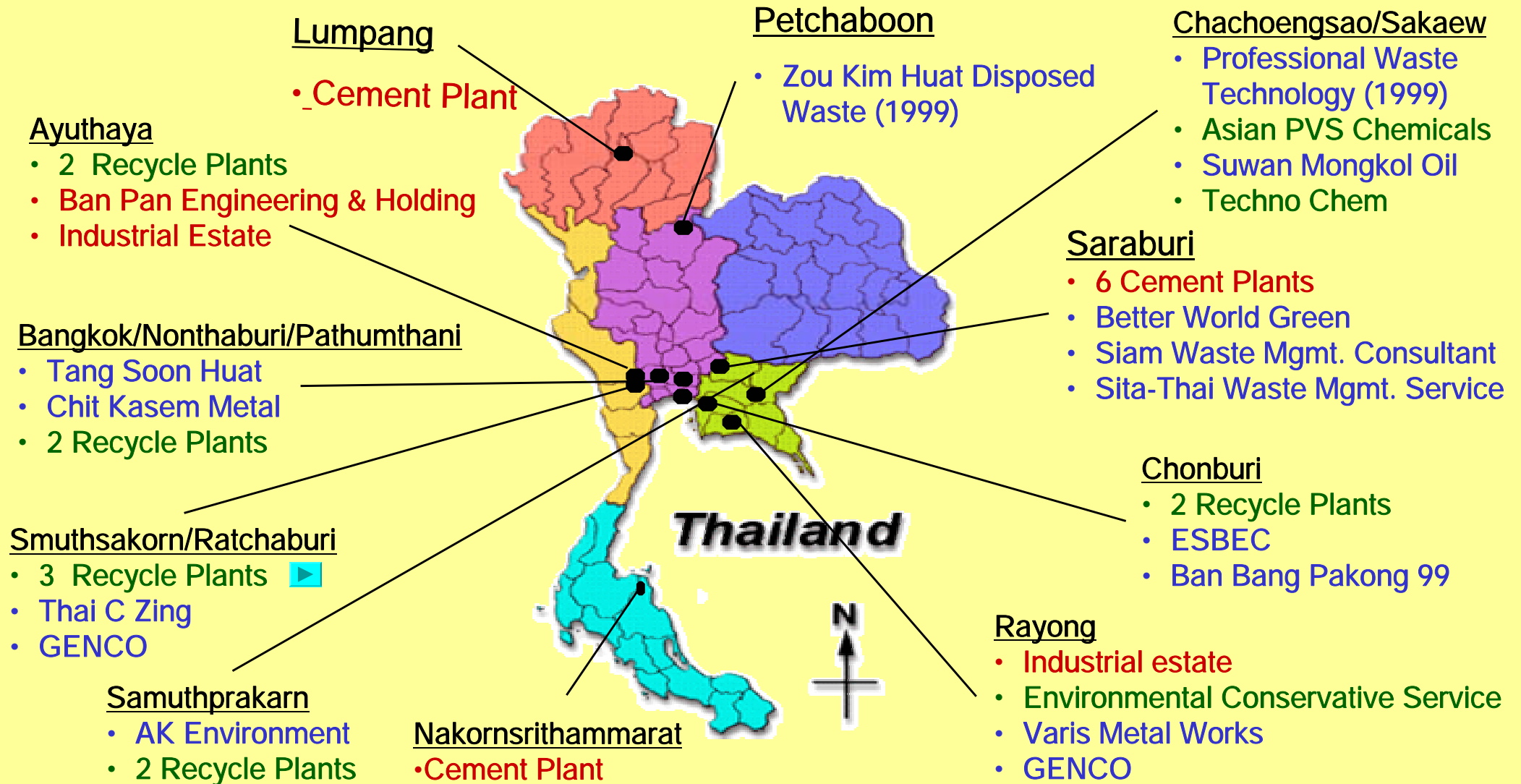
Existing E-waste Management System



Existing E-waste Management System



Existing E-waste Management System



Location of Waste Recycle/Treatment Facility

E-Waste Management : Thailand Experience

Related Envi. Issues/Directive				Tool & System				Related Project/Key activities	0	0	0	0	0	0	0	0	0	0
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement		EMS	0	1	2	3	4	5	6	7	8
✓	✓								National Subcommittee for impact follow up and policy determination to EU Directives on WEEE and RoHS	•								
✓	✓						✓		Establishment of Office of Import Policy Admin Committee : Import stewardship on used & waste EEE		•							
✓	✓							✓	DIW feasibility study project on EE recycling plant			•						
✓	✓	✓			✓				National Subcommittee for EU-IPP			•						
✓	✓			✓	✓				EI study project (DFT, MOC) - Study & research: legislative study, economic impact, LCA, eco-design, WEEE, RoHS, impacts and measures (ASEAN and EU), existing and suggested local e-waste mgmt.			•						
✓	✓								PM's special meeting on inter-ministerial env. legislative update				•					

Related Envi. Issues/Directive				Tool & System					Related Project/Key activities	0	0	0	0	0	0	0	0	0	0
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement	EMS		0	1	2	3	4	5	6	7	8	9
✓	✓						✓		DIW notification on import used EEE				•						
✓	✓							✓	- Study trip : recycling plants, e-waste mgmt., research lab., RoHS reporting s/w (japan, korea and EU)				•						
✓	✓								E -waste mgmt.: TV, RF, WM, AC, PC, CRT wastes collection survey by PCD, METI				•						
✓	✓	✓		✓	✓	✓	✓		National case study on environmental requirements, market access, and competitiveness in the electronics sector (UNCTAD/EEI)				•	•					
✓	✓			✓	✓				Training : LCA and eco-design by (GAP/METI/MTEC)				•	•		•			
✓	✓								EEE pilot project (mobile phone, battery, F/L) : PCD					•					

Related Envi. Issues/Directive				Tool & System					Related Project/Key activities	0	0	0	0	0	0	0	0	0	0
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement	EMS		0	1	2	3	4	5	6	7	8	9
✓	✓					✓	✓		- Guideline on develop't of envi. mgmt. via business partners and appropriate GSC process in Thai context (TEI)					●					
✓	✓							✓	Recycling plant feasibility study F/L : PCD					●		●			
	✓					✓	✓		Thailand sustainable production & consumption (TRF/ TEI/ TBCSD)					●	●	●			
✓	✓						✓	✓	Survey of the import and the environmentally sound management of the electronic wastes in Thailand (BCRC/PCD/EEI)					●	●				
✓	✓								Pilot project on EE recycling system (FTI / EEI / TISTR / MTEC)						●	●			

● **Comple**
○ **Incomple**
○ **No**

Related Envi. Issues/Directive				Tool & System					Related Project/Key activities	0	0	0	0	0	0	0	0	0	0
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement	EMS		0	1	2	3	4	5	6	7	8	9
✓	✓	✓		✓	✓	✓	✓	✓	MOI established Committee (24 inter-ministerial members) to follow-up & handle EU environmental directives, will propose action plans for further Cabinet approval.						●	○			
✓	✓	✓		✓	✓	✓	✓		- Development of Government green procurement mechanism (TEI, TRF, MOF)						●	○			
✓	✓			✓	✓			✓	EEE Green Camp project (NESDB/EEI/MTEC) ▶						●	○			
✓	✓	✓		✓	✓			✓	SPF: Cap. building on LCA/eco-design for EEI (EEI) ▶						●	○			
	✓			✓	✓	✓	✓		Thai-RoHS voluntary networking initiative (MTEC / EEI)						●	○			
✓	✓	✓		✓	✓				APE: Asia Eco-Design Electronics (AEDE) CfSD/ Linkoping/ TERI/ ELCINA/ RUC/ EEI/ Gandhi Foundation						●	○	○		

Related Envi. Issues/Directive				Tool & System					Related Project/Key activities	0	0	0	0	0	0	0	0	0	0
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement	EMS		0	1	2	3	4	5	6	7	8	9
	✓						✓		"Demo" project on central "JGPSI" format/green supply chain S/W for SMEs by (EEI/METI-JETRO/Toshiba)– Green Procurement Management Model Demonstration						●	●			
	✓	✓		✓	✓			✓	SPF: Guideline for RoHS/ELV compliance producers & preparation for EuP (MTEC/EEI/ISMED/FTI)						●	●			
✓	✓	✓		✓	✓				International meeting on IEC TC111/WG2 (FTI/EEI), Bangkok							●			
✓	✓			✓	✓			✓	OIE/MOI&PCD/MONRE: National Strategy on "Thai" WEEE							●			
	✓						✓	✓	SPF: Capacity building up for the determination of levels of regulated substances in electrical, electronical and automotive parts (MTEC)							●			

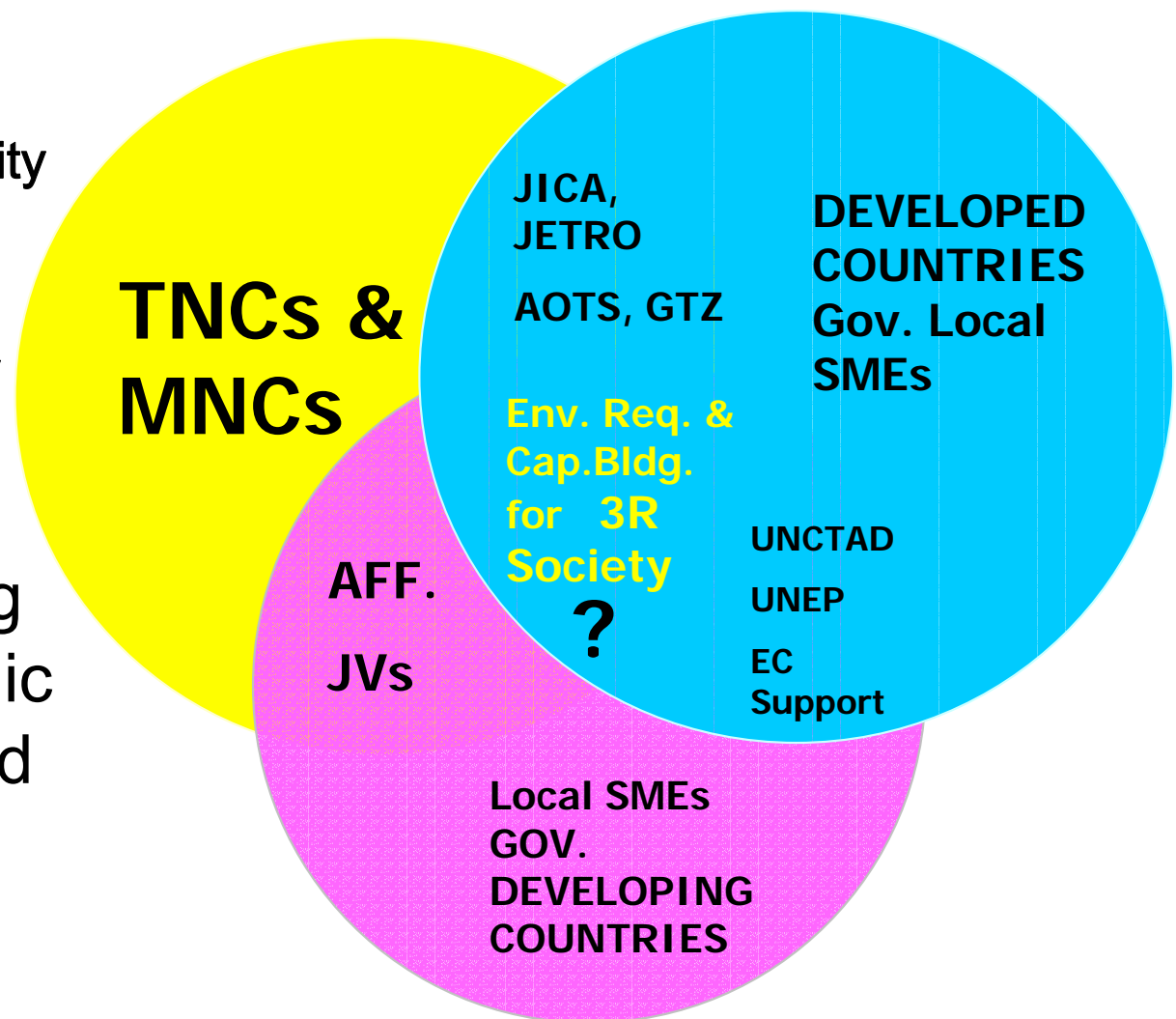
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Related Envi. Issues/Directive				Tool & System					Related Project/Key activities	0	0	0	0	0	0	0	0	0	0	
WEEE	RoHS	EuP	REACH	LCA	Ecodesign	Green Label	Green Procurement	EMS		0	1	2	3	4	5	6	7	8	9	
✓							✓	✓	Promotion of advanced waste management based on 3R concept in the three countries (UNEP, PCD, TEI)							●				
	✓	✓		✓	✓			✓	ASIA ProEcoII "Sustainable Production and Consumption as the Long-term Solution to Reduce Urban Environmental Degradation Developing a Reference Framework for Electrical and Electronic Products" (TEI, SIRIM, IZM Fraunhofer, CITO)							●		○	○	
✓	✓			✓	✓				BASEL-MOE/JAPAN: Environmentally Sound Management of Electrical & Electronic Waste in Thailand , Phase1- Inv. Anal. (PCD/MTEC/EEI)							●		○	○	○

● **Comple**
 ○ **Incomple**
 ○ **No**

CONCLUSION & EXPECTATION

- Pending Issues;
 - “Thai-WEEE”: Laws, Waste Quantity Survey, Funding
 - Appropriate Recycling Technology
 - Need for Capacity Building Activity toward 3R Society
- Greater cooperation among government, private & public sectors. (Both domestic and international)





Thank You Kob Khun Krub



Strategies on Thai WEEE management

1 Development of Appropriate Technology and Process of WEEE Mgmt.

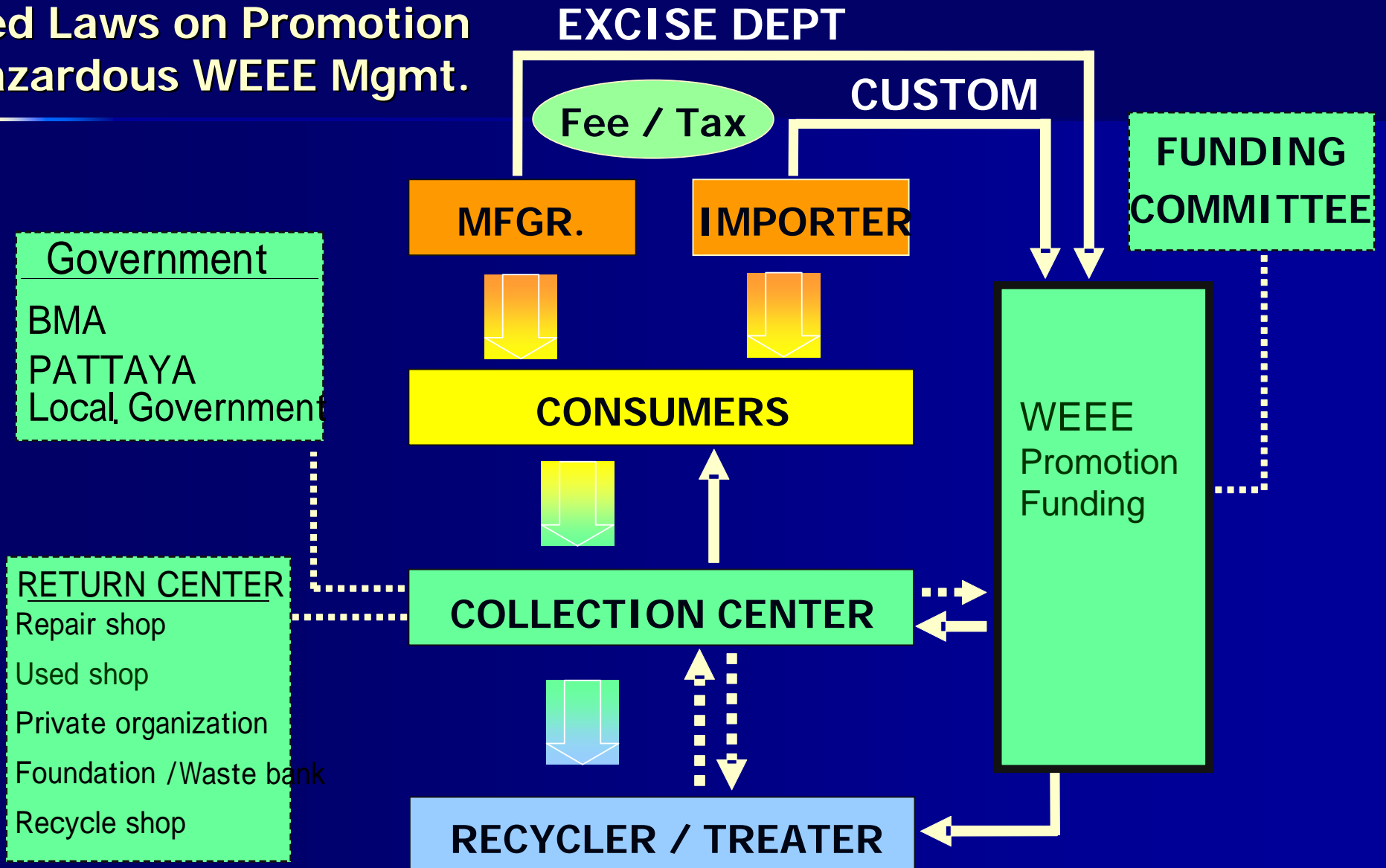
2. Capacity building of related stakeholders in WEEE Mgmt.

3. Law enforcement and Development of WEEE Mgmt Promotional system

4. Development of Financial and Investment mechanism to support WEEE Mgmt.

5. Development of Thai WEEE Mgmt & Administration

Drafted Laws on Promotion of Hazardous WEEE Mgmt.



Activities in EEI -Green Camp Project													
Month	1	2	3	4	5	6	7	8	9	10	11	12	
Pre-camping Green Camp Preparation	Website												
	Public Relation												
	Expert training												
	LCA & EcoDesign Databases/Software Development												
	Training Material / Manual Prep.		Train the Trainer in LCA & EcoDesign										
Green Camp Implementation					Manufacturing Training & Site Visit								
	Service Network for SMEs Development												
Green camp practice			Factory Consultation in CT										
					Demonstration Projects								

EU-SPF Roadmap :Cap. building on LCA/eco-design for EEI

