

EPR for WEEE Experiences in Europe

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Legislative development for EEE

Europe

- Three EU Directives
- Also Switzerland & Norway

Asia

- Legislation in force: Taiwan, Japan, Korea, China
- Legislation in preparation: India, Thailand...

N. America

- Legislative measures discussed/enacted in some states/provinces (California, Manitoba, Maine ...)

S. America

- Legislative measures discussed/enacted in Argentina, Columbia, Costa Rica...

Three EEE Related Directives in EU

1. 2003 Directive on Waste Electrical and Electronic Equipment (WEEE Directive)
2. 2003 Directive on the Restriction of the use of Hazardous Substances in EEE (RoHS Directive)
3. 2005 Directive establishing a framework for the setting of Eco-design requirements for Energy-Using Products (EuP Directive)

What is EPR?

*Extended Producer Responsibility (EPR) is a policy principle to promote **total life cycle environmental improvements** of product systems by **extending the responsibility of the manufacturers** of the product to various parts of the entire life cycle of the product, and especially to the take-back, recycling and final disposal of the product (Lindhqvist, 2000).*

Why EPR for EEE?

- Increase in waste volume
 - Rapid advancement of technology
 - Increase in variety
- Problems with treatment and disposal
 - Components with hazardous substances
 - Complexity of the structure
- Lack of information from the manufacturers
- Inefficient use of resources

Producers may be the primary actors to improve the situation

Goals of EPR-based programmes

- System and product design improvement
- Higher utilisation of products and materials
 - Effective collection
 - Environmentally sound treatment of collected products
 - Higher utilisation of products and materials by reuse and recycling

WEEE Directive

- Based on Art. 175 (now 191/192) of EC Treaty
 - Various implementation among member states
- Objectives
 - waste prevention
 - Waste reduction via reuse, recycling & recovery
 - improved env'l performance of industries involved
- Transposition by 13 August 2004

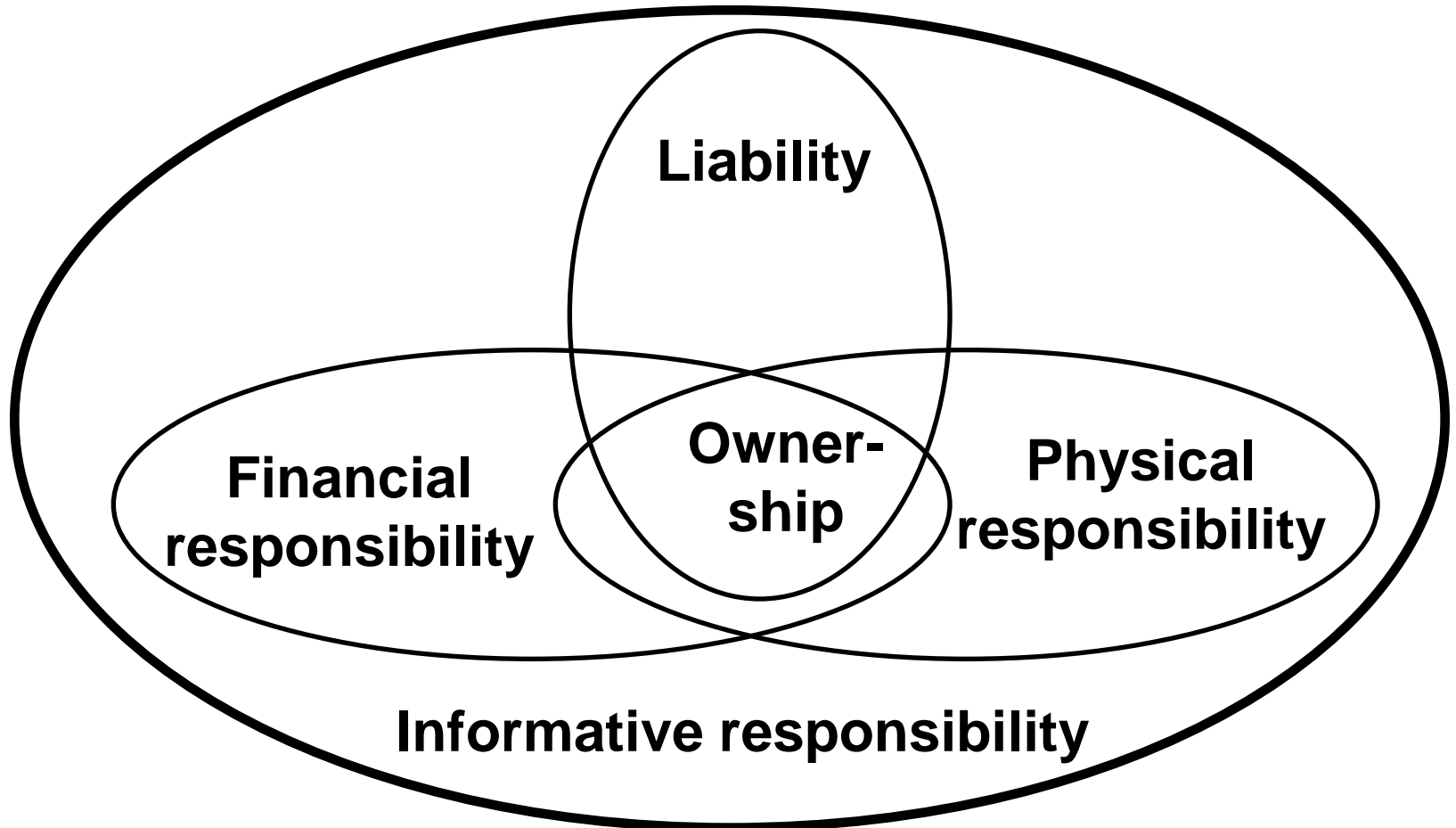
WEEE Directive: Scope

- 1.2. Large & small household appliances (white goods)
3. ICT & office equipment (grey goods)
4. Entertainment (consumer) equipment (brown goods)
5. Lighting equipment
6. Electrical & electronic tools
7. Toys, leisure & sport equipment
8. Monitoring & control instruments
9. Medical devices
10. Automatic dispensers

Differentiation

- new or historic
- source

Extended Producer Responsibility



Range of responsibility

	Physical responsibility	Financial responsibility	Informative responsibility
Collection & sorting			
Reuse, recycling & treatment			
Monitoring & Enforcement			

- Who is responsible?
- Producer responsibility
 - Individual or collective?
 - How?

Physical responsibility: collection

Collection

- Free-of charge separate collection from households, old-for-new (retailers)
 - What about the rest?
 - Separate collection from business (producers)
 - Collection target: 4 kg/person/year
- Proposed revision: 65%

Collection from households

	Physical	Financial
Austria	D/M/P	D/P
Belgium (Brussels)	D/M	D
Bulgaria	P	P
Cyprus	P	P
Czech Republic	D/P	D/P
Denmark	M	M
Estonia	D/P	D/P
Finland	D/P	P
France	D/M/P	D/P
Germany	M	M
Greece	P	P
Hungary	P	P
Ireland	D/M	D/P
Italy	D/M	D/M

	Physical	Financial
Latvia	P	P
Lithuania	D/M/P	P
Luxemburg	D/M	D/M
Malta	D/P	D/P
Netherlands	D/M	D/M
Poland	D	D
Portugal	D/M/P	D/P
Romania	M	M
Slovakia	D/P	D/P
Slovenia	D/M	D/M
Spain	D/M	P
Sweden	P	P
U. K.	D/P	D/P

(Source: Sander et al., 2007)

D: distributors, M: municipalities, P: producers

Put on the market & collection achievement

Figure (per capita)		2006	2007	2008
Put on the market (kg)	average	13.59	19.71	20.88
	lowest	6.52	8.72	11.23
	highest	40.31	45.41	43.49
Collection (kg)	average	2.90	4.55	6.27
	lowest	0.05	0.17	1.01
	highest	21.90	24.43	24.17
Collection %	average	21	23	30
	lowest	1	2	9
	highest	57	54	63

Collection rate based against 2006-2008 average of put on the market: 35%

Source: calculation by Tojo based on Eurostat (2010, 11)

Collection & recycling rate by WEEE category

	WEEE category	Collection rate (%) 2008 against 2006-2008 put on the market average	Reuse & Recycling %				Current recovery target %
			2006	2007	2008	Current mandate	
1	Large household appliances	42	90	73	64	75	80
2	Small household appliances	24	72	74	72	50	70
3	IT & Telecommunication	41	73	75	75	65	75
4	Consumer equipment	38	81	79	78	65	75
5	Lighting equipment	8	81	49	45	50	70
5a	Gas discharge lamps	39	62	88	77	80	75
6	Electrical & electronic tools	13	75	74	76	50	70
7	Toys, leisure & sports equipment	7	63	65	67	50	70
8	Medical devices	10	66	74	63	-	-
9	Monitor & control instruments	12	70	82	77	50	70
10	Automatic dispensers	22	54	72	80	75	80
	Total	35	83	74	69		

Source: Collection and recycling rate calculated by Tojo based on Eurostat (2010, 11)

Physical responsibility (2)

- Set up systems for treatment/recovery (producers)
- **Recovery** and component, material and substance **re-use & recycling** targets (producers)
 - Proposed revision: "preparation for reuse"
- Permit requirement, treatment obligation (treatment plants)
 - Proposed revision: shipment provisions enhanced

WEEE Directive: financial responsibility


- Household WEEE
 - New: **Individual**, guarantee requirements
 - But possibility for joining collective schemes
 - Historical: all the existing producers (**collective**)
- Non-household WEEE
 - New: producers
 - Historical: producers when old-for-new, end-users for the rest



Financial Responsibility

New & historical waste

Financial guarantee



-  Historical (market share) New (own products)
-  Historical (market share) New (market share)
-  Historical (market share) New (not specified)
-  No distinction

-  Limited financial guarantee required for collective systems
-  Exempt from financial guarantee if member in a collective system

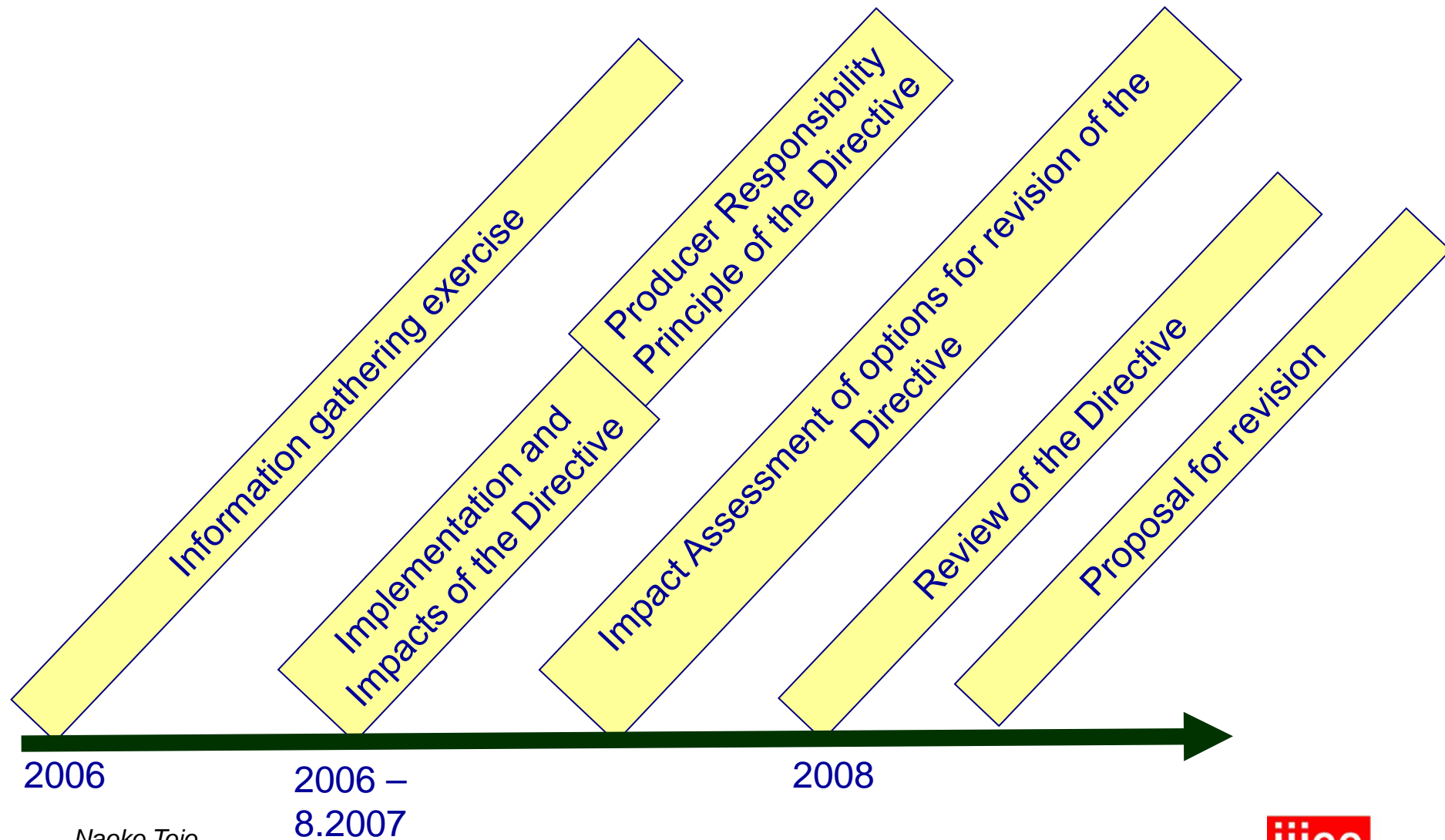
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(Source: Van Rossem, Tojo & Lindhqvist, 2006)

WEEE Directive: informative responsibility

- Marking on new products
- Info. on reuse/recycling/treatment to treatment facilities
- Registration
 - Companies
 - # of products put on the market

WEEE Directive: review process



Some words about WEEE Directive

- Still at its infant stage
 - Varying legislation and implementation
 - Collection from households
 - Practical organisation for infrastructure
 - Individual responsibility not implemented in most MS
- Currently, chaotic and lacks design incentives

WEEE Directive: discussion points

- Product policy or waste policy
- Long-term or short-term perspective
e.g. product design, treatment technologies
- Individual or collective responsibility
- Varying legislation and implementation
e.g. Means of registration, definition of exporters/importers, financial guarantee, collection entities, # of consortium, B2B vs B2C etc. etc
- Target setting etc.

Issues to consider

- Goals
 - Actors and their mandates (why?, power relation)
 - Scope
 - Range of producer responsibility (why?)
 - Target setting
 - Collection: consumers' convenience, incentives & information
 - Free riders, monitoring, export....
- etc.

... Implication to design change?

For more information...



EPR – a leading research field in the IIIEE

EXTENDED PRODUCER RESPONSIBILITY IN A NON-OECD CONTEXT:



THE MANAGEMENT OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT IN INDIA

PAWATE HANSHALI BHOOL, THOMAS LINDBERGH, NAOKO TOJO

REPORT COMMISSIONED BY GREENPEACE INTERNATIONAL



LOST IN TRANSPOSITION?

A STUDY OF THE IMPLEMENTATION OF INDIVIDUAL PRODUCER RESPONSIBILITY IN THE WEEE DIRECTIVE

CHRIS VAN ROSSEM | NAOKO TOJO | THOMAS LINDBERGH
THE INTERNATIONAL INSTITUTE FOR INDUSTRIAL ENVIRONMENTAL ECONOMICS - INTERNATIONELLA MILJÖINSTITUTET
REPORT FINANCED BY GREENPEACE INTERNATIONAL, FUNDING OF THE EUROPEAN UNION, THE SWEDISH ENVIRONMENTAL FUND, SIDA/SIDA 2008

SEPTEMBER 2008



EPR

EXTENDED PRODUCER RESPONSIBILITY
AN EXAMINATION OF ITS IMPACT ON INNOVATION AND GREENING PRODUCTS
CHRIS VAN ROSSEM | NAOKO TOJO | THOMAS LINDBERGH
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Chris van Rossem



Individual Producer Responsibility in the WEEE Directive

From Theory to Practice?



Doctoral dissertation

the international institute for industrial environmental economics
Lund University, Sweden



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Extended Producer Responsibility as a Driver for Design Change - Utopia or Reality?



Doctoral dissertation

the international institute for industrial environmental economics
Lund University, Sweden



La responsabilidad extendida del productor en el contexto latinoamericano

La gestión de residuos de aparatos eléctricos y electrónicos en Argentina
Thomas Lindbergh, Pamela Weismannsdotter, Naoko Tojo

