

EPR in e-waste management

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Join us in recycling **Wecycle**

Agenda

- About Wecycle
- Total cost
- Legislation
- Structure
- What does Wecycle do?
- Collection system
- Results 2011
- What have we done to come so far?
- Target WEEE Recast
- Flows in the Netherlands
- Forecast 2012-2016
- Recommendations

About Wecycle

- Collection and recycling of e-waste in the Netherlands
- 1.600 manufacturers and importers
- Collective take back system, since 1999
- ISO 9001 and 14001 certified
- 130.000 ton collected in 2011 (incl. ICT)
- Office: 20 employees

Total cost: € 25,4 Million



Cost of collection and recycling 2011

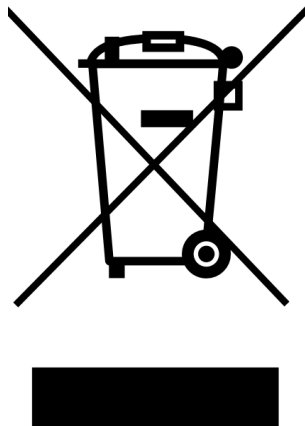
<i>Section</i>	<i>Cost (€/ton)</i>
Collection, sorting, logistics, Compensation fee	210
Recycling	-9
Campaign	4
Office Wecycle	28

109.000 ton (ex. ICT) x € 233 = € 25,4 Million

Kostenreductie t.o.v. 2010 gerealiseerd van 18,5%

Legislation - Overview

- 1999: NL Decree on the Removal of White and Brown Goods
- 2004: EU Directive on Waste Electric and Electronic Equipment (WEEE)
- 2006: Transposition of WEEE Directive into national law
- 2012: Adjustments on the WEEE Directive (after Recast procedure)



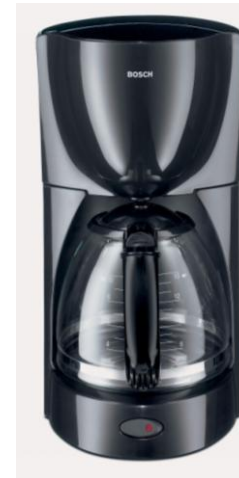
Legislation – Headlines WEEE Directive

- Introduced EPR in the EU
- Manufacturers and importers obligation to organize and finance the collection and recycling
- Collection target: 4 kg/inh.
→ Recast 65% of weight POM
- Result: introduction of nation wide systems for collection and recycling

Legislation – Scope

10 categories

- 1 Large Household Appliances
- 2 Small Household Appliances
- 3 IT & Telecom
- 4 CE
- 5 Lighting
- 6 Power tools
- 7 El. Toys, sports equipment
- 8 Medical equipment
- 9 Monitoring instruments
- 10 (Vending) machines



What does Wecycle do?

- Execution of all legal and administrative producer obligations
- Management of a collection system:
 - based on a plan, approved by government
 - over 10.000 collection points
 - national coverage
- Registration of producers in national register
- Monitoring report: POM, collection volumes & recycling rates
- PR & Communication
- Financial administration

Wecycle collection structure

Over 9.000 collection points

→ 360 municipal

→ 2.500 retail

→ 64 DC chains

→ 1.537 schools

→ 4.600 Installers

Cooperation battery scheme

→ 4.400 points

Enforcement municipalities

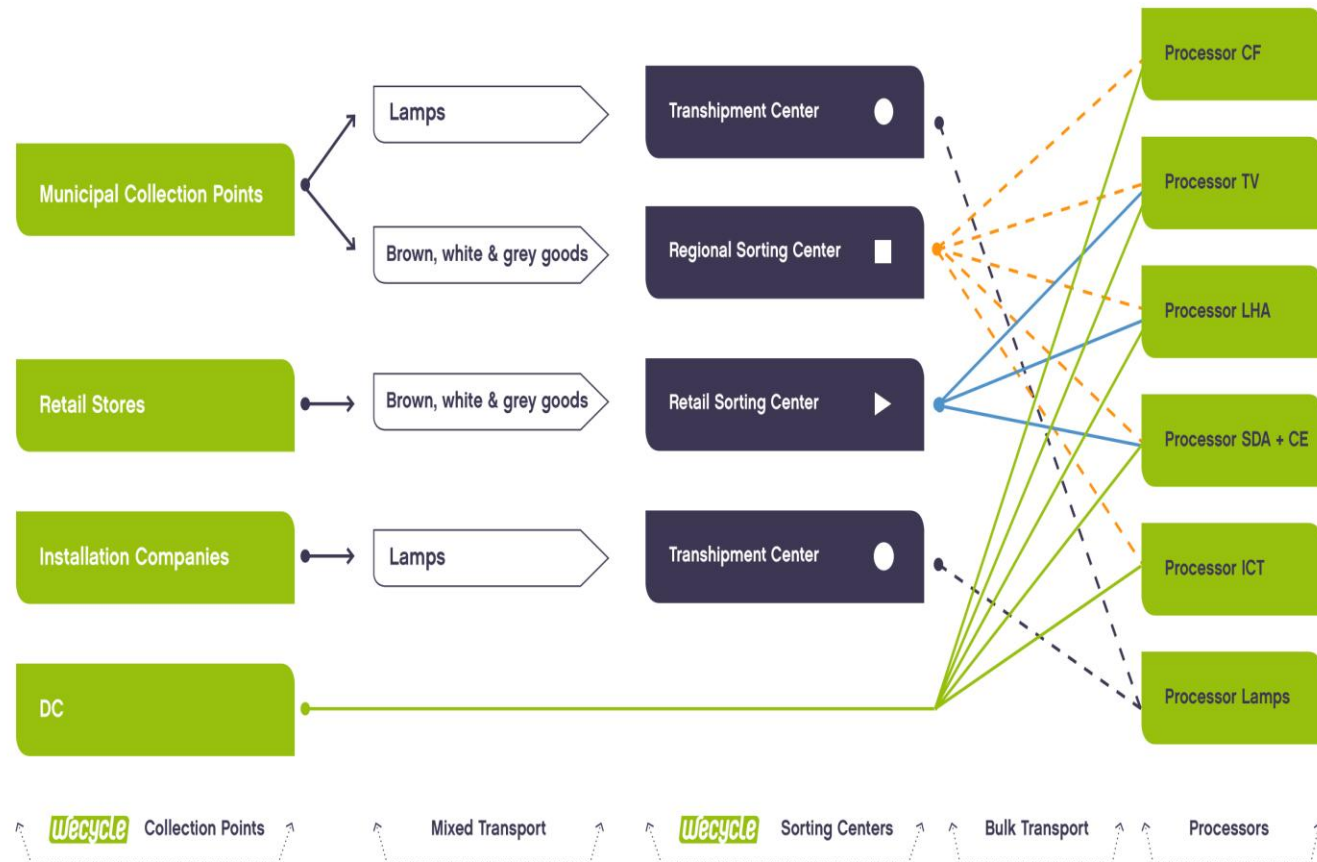
→ Benchmark

→ Visit/research

RepTool

→ WEEELABEX

→ 3rd party audits



Objective

Wecycle aims to collect and recycle as many electrical appliances and energy-saving lighting (e-waste) as possible and guarantees their optimum recycling.

- Prevent hazardous materials ending up in nature
- Reduce the need to extract primary raw materials
- Prevent illegal export to countries in Africa or SE Asia

Focus

- Collection
→ 130 (2011) to 200 Mkg (2016)
- Small appliances

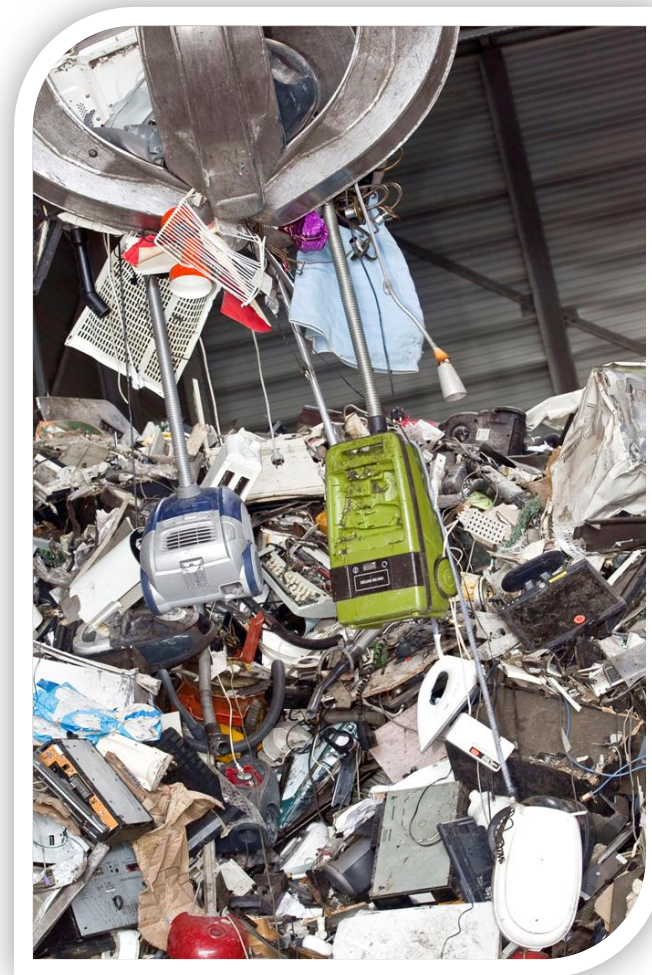


Results - Collection

1999-2012: over 1 billion kilos
e-waste collected and recycled

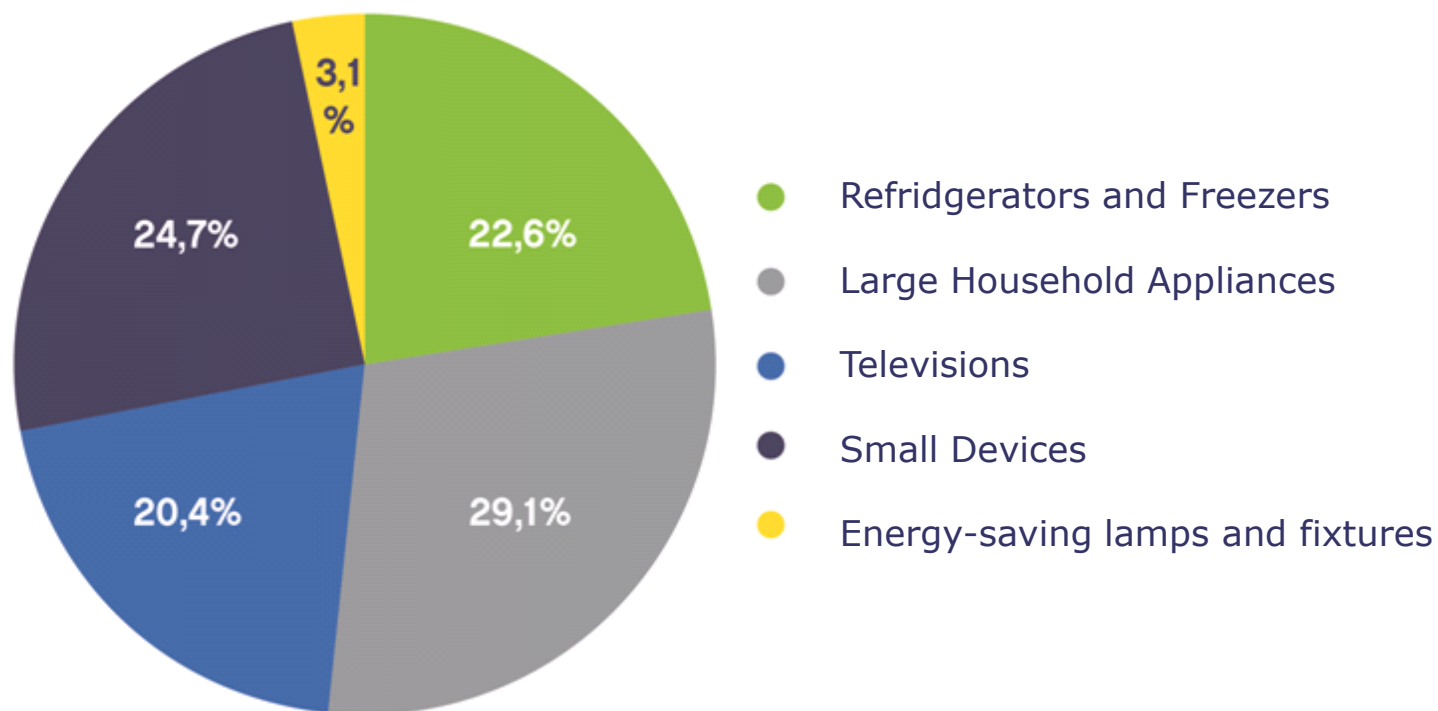
2011:

- 130 million kg
- 7.5 kg/inh
- 7,7 million devices
- 11 million energy-saving lamps and tubes



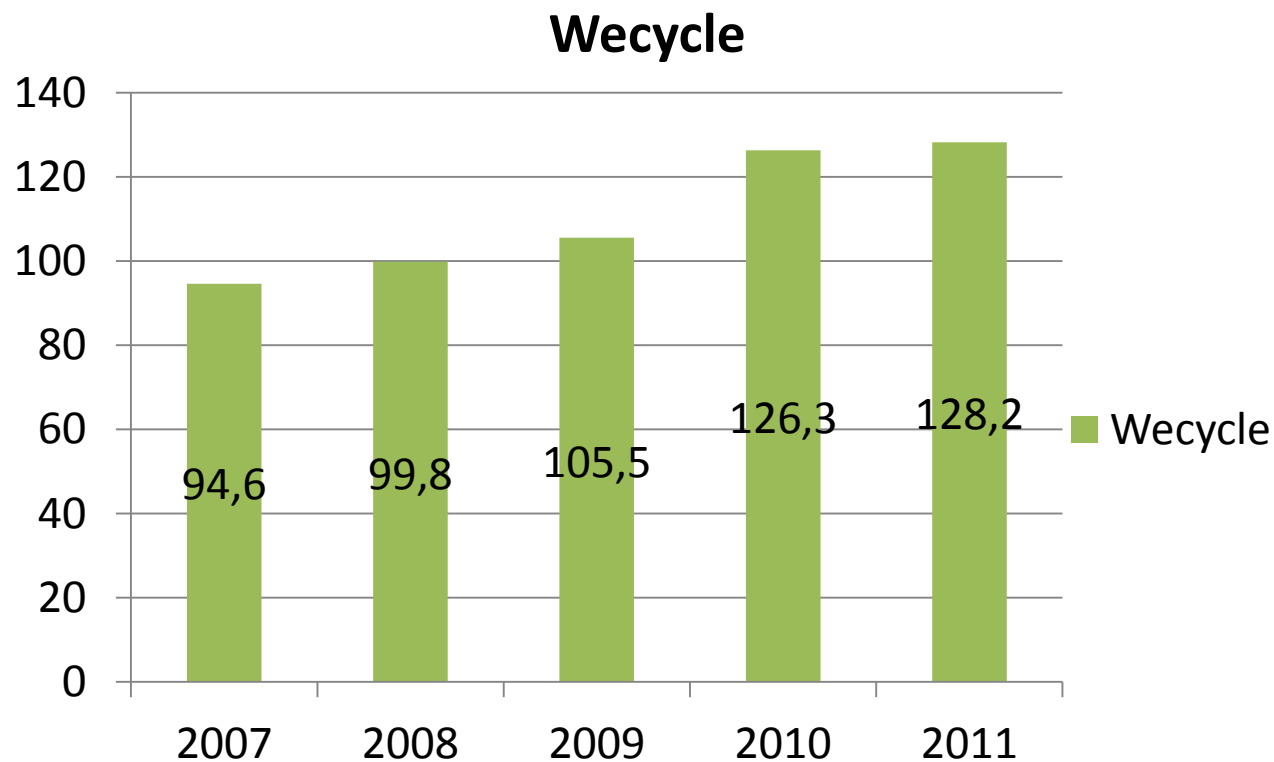
Results – Collection 2011

109.7 million kg electrical appliances and energy saving lamps collected in 2011 (excl. 18.000 ton ICT)



Results – Collection 2007 - 2011

*Total Wecycle collection result in millions of kilograms
2007-2011*



Results - Recycling

	Legal target	Result Wecycle
TV	65%	88%
CF	75%	94%
Large Household Appliances	75%	78%
SDA + CE	55%	78%
Energy-saving Lamps	80%	93%
IT	65%	93%

Results – Reducing carbon emissions

- Re-use materials → 90 million kilos of carbon emissions equivalents
- Removing CFCs → 400 million kilos of carbon emissions equivalents.

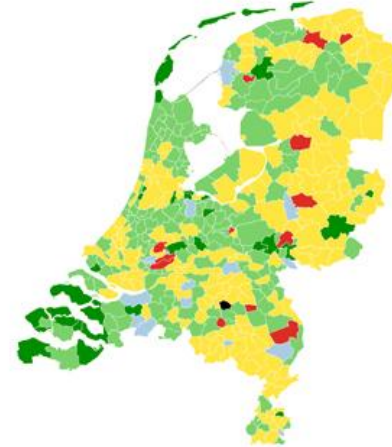
Reduction comparable to the annual carbon emissions of 170,000 cars (driving 15,000 km)

170,000 x



What we have done to reach this result?

- Contracts with municipalities and retail
- Compensation fee
- Accountmanagers
- Benchmark municipalities
- Local collection pilots
- Wecycle finder website
- Support with promotional materials, PR & communication and new collection tools



Recast of the WEEE Directive

Collection target: 45% WEEE POM in 2018 and 65% (2021)

Other highlights of the Recast:

- Open scope for 6 years (10 categories)
- Product design → Ecodesign Directive 2009/125/EC
- Collection target responsibility: member states
- Reuse target: withdrawal of the proposal 5% preparation for reuse
- Retail take back: old for new ; > 400 m2 of EEE sales old for nothing
- Shipmet used EEE (test reports; appropriate protection)
- Standards: for collection, transport, treatment will be developed
- Financing: memberstates decide: visible fee or in cost price

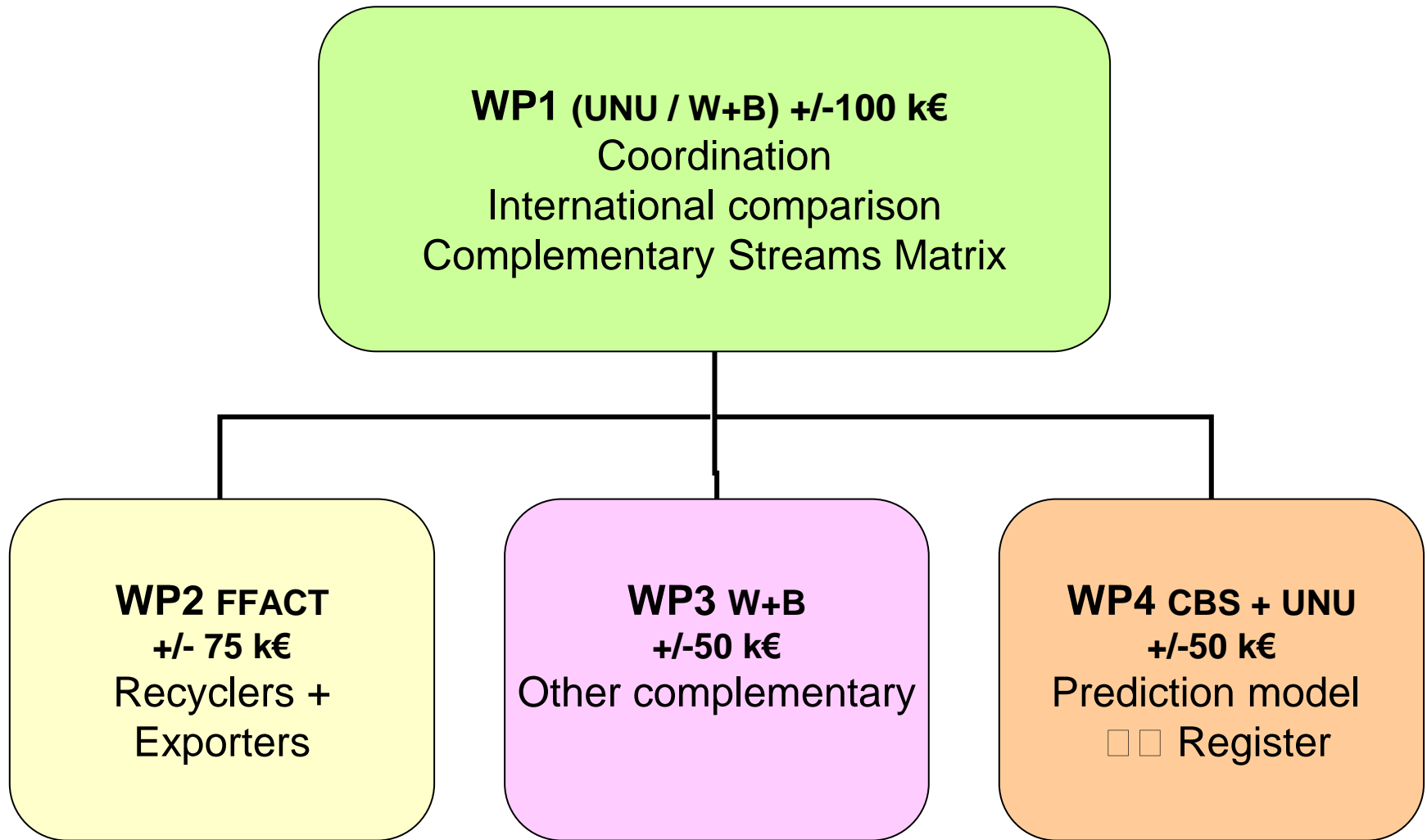
Question: is 65% WEEE POM in reach?

The Dutch WEEE Flows: Polder approach

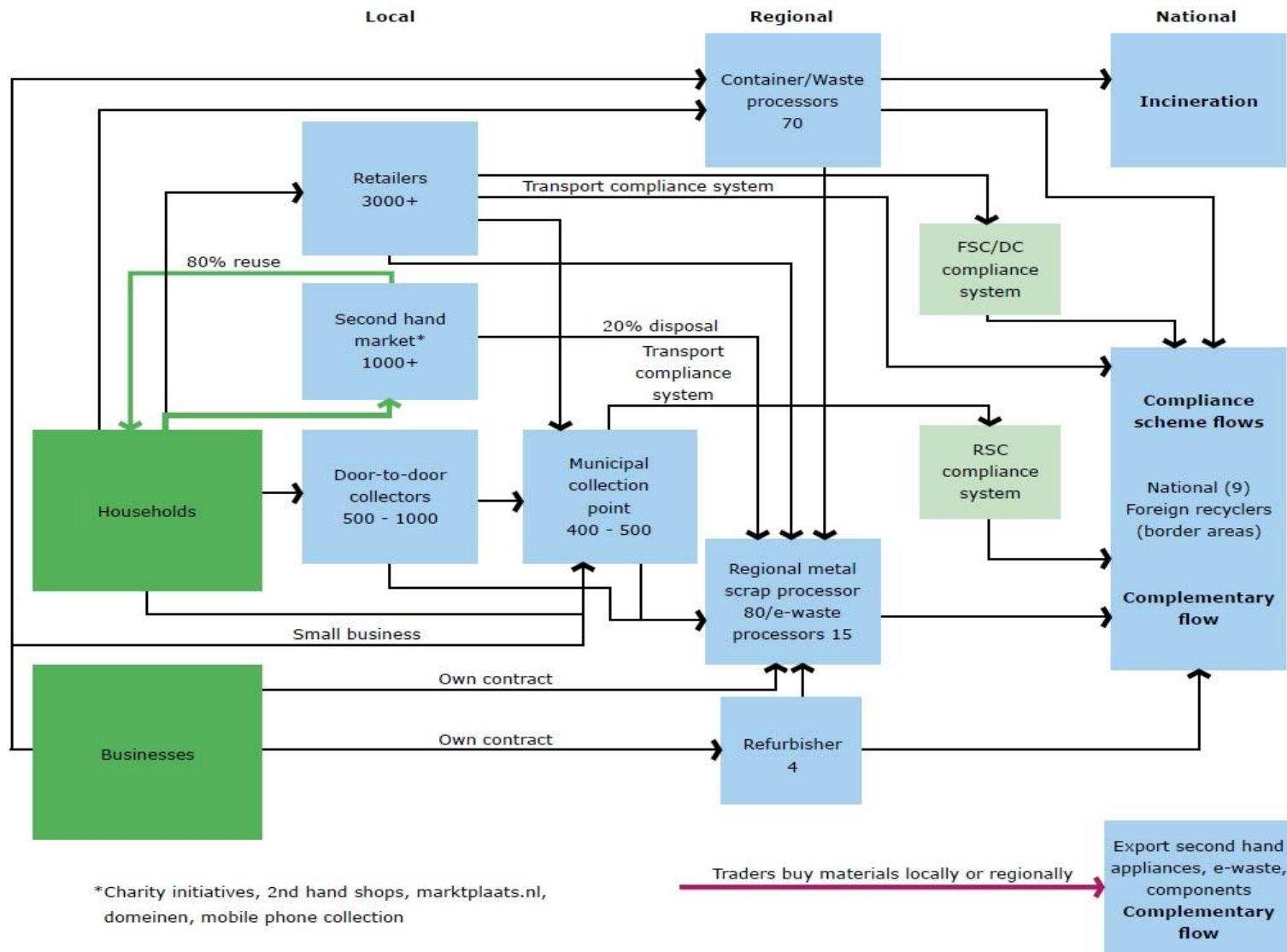


- United Nations University, Witteveen+Bos, Ffact
- Statistics NL, Agentschap NL, EPA and Inspectorate, NVRD
- EERA, MRF
- Wecycle, NVMP, ICT Milieu

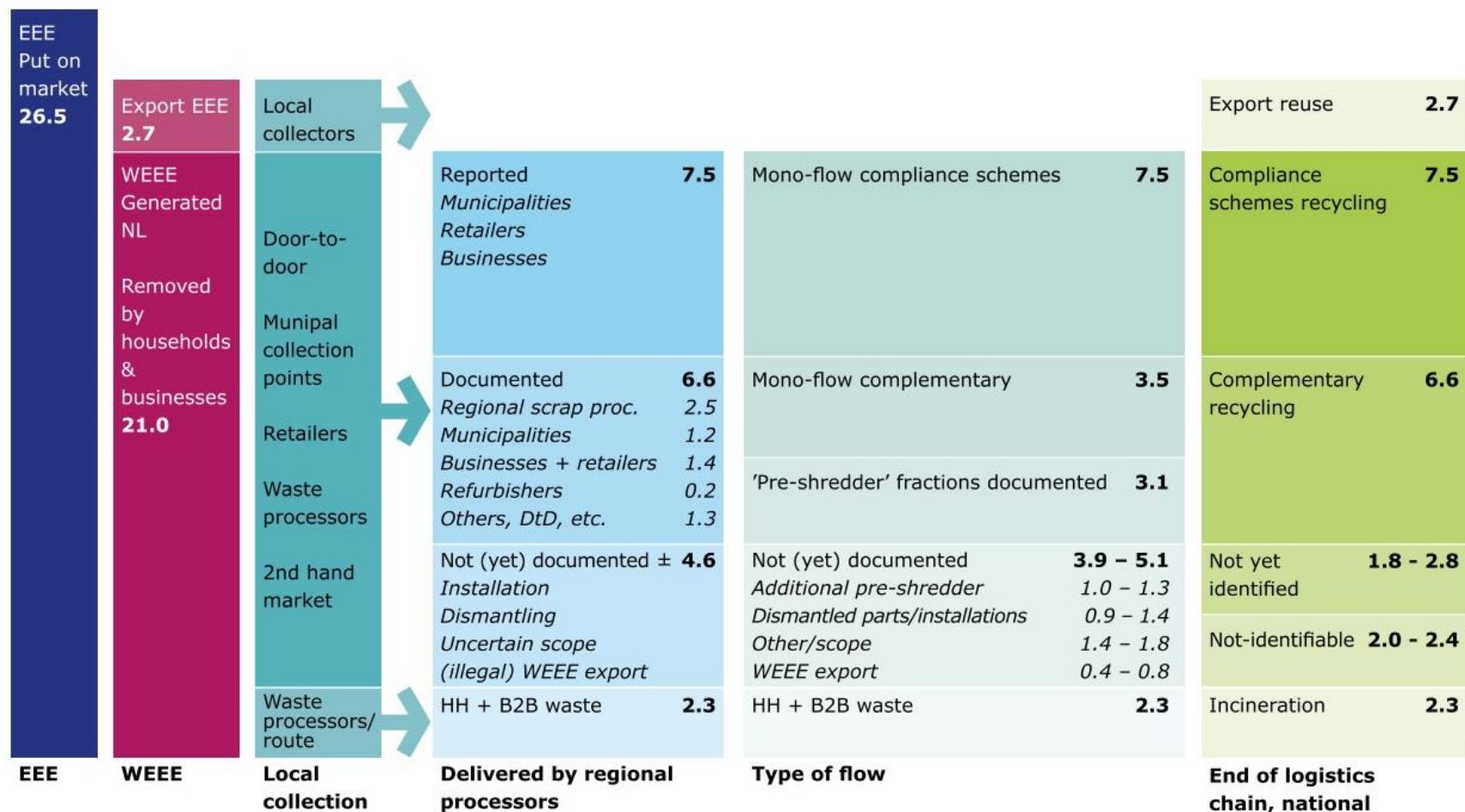
Report: The Dutch WEEE Flows



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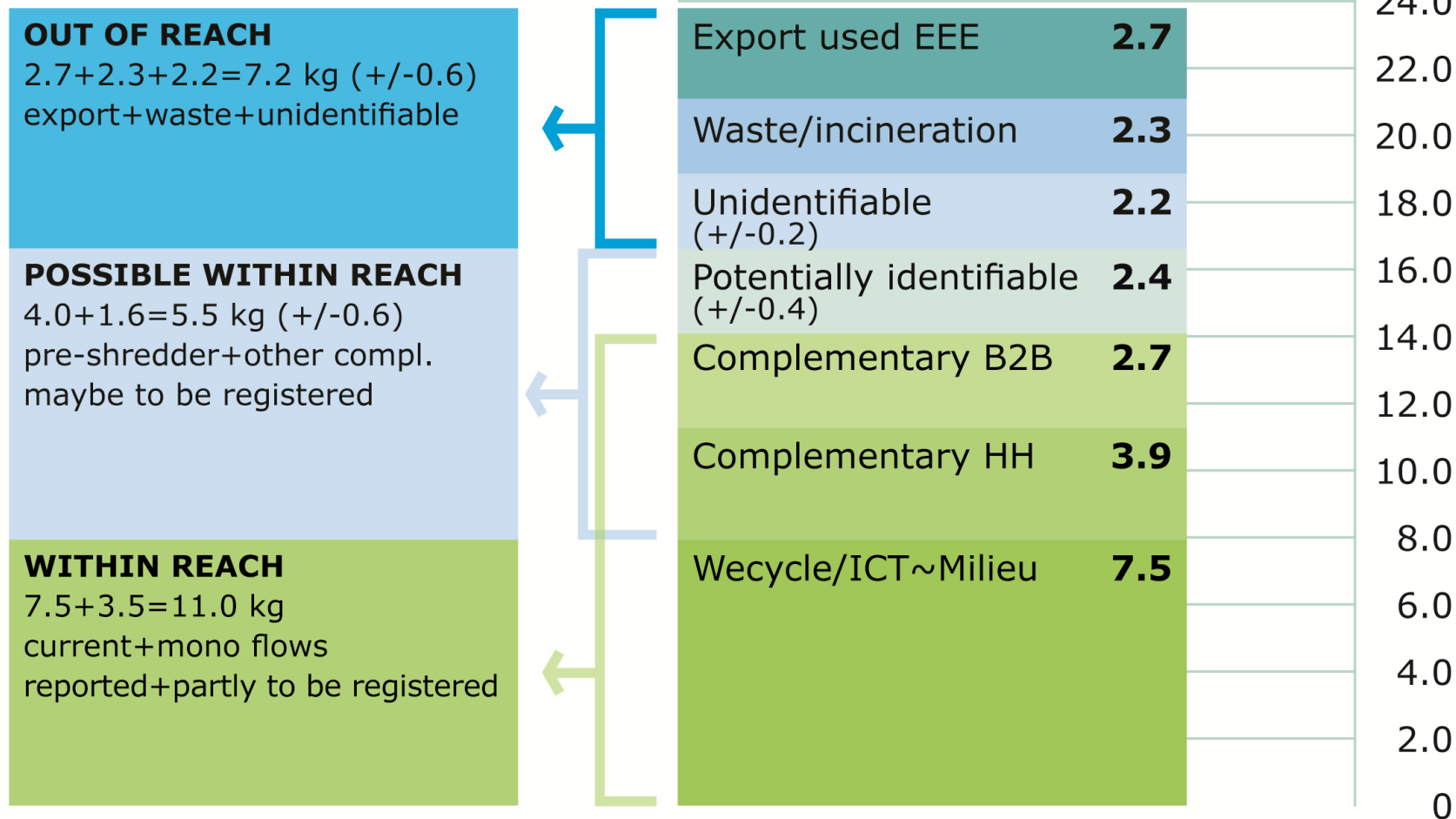


Report: The Dutch WEEE Flows



Report: The Dutch WEEE Flows

Scope



Recommendations

Is 65% POM WEEE within reach?

- From 8 kg/inh (130 Mkg) → 17 kg/inh (280 Mkg)
 - All actors principle
1. Mandatory handover of e-waste
 2. Mandatory registration
 3. Qualified export ban
 4. Enforcement of the regulations
 5. Level of playing field in EU → harmonized standards
 6. Introduction of old for noting
 7. A solid finance: the visible fee

Thank you



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Join us in recycling **Wecycle**