



Dynamics of waste movement within the European Union

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Import & export of MSW
Lenny van Klink

**"If you always do what you always did,
you will always get what you always got"**

Mark Twain

TEEBER
image

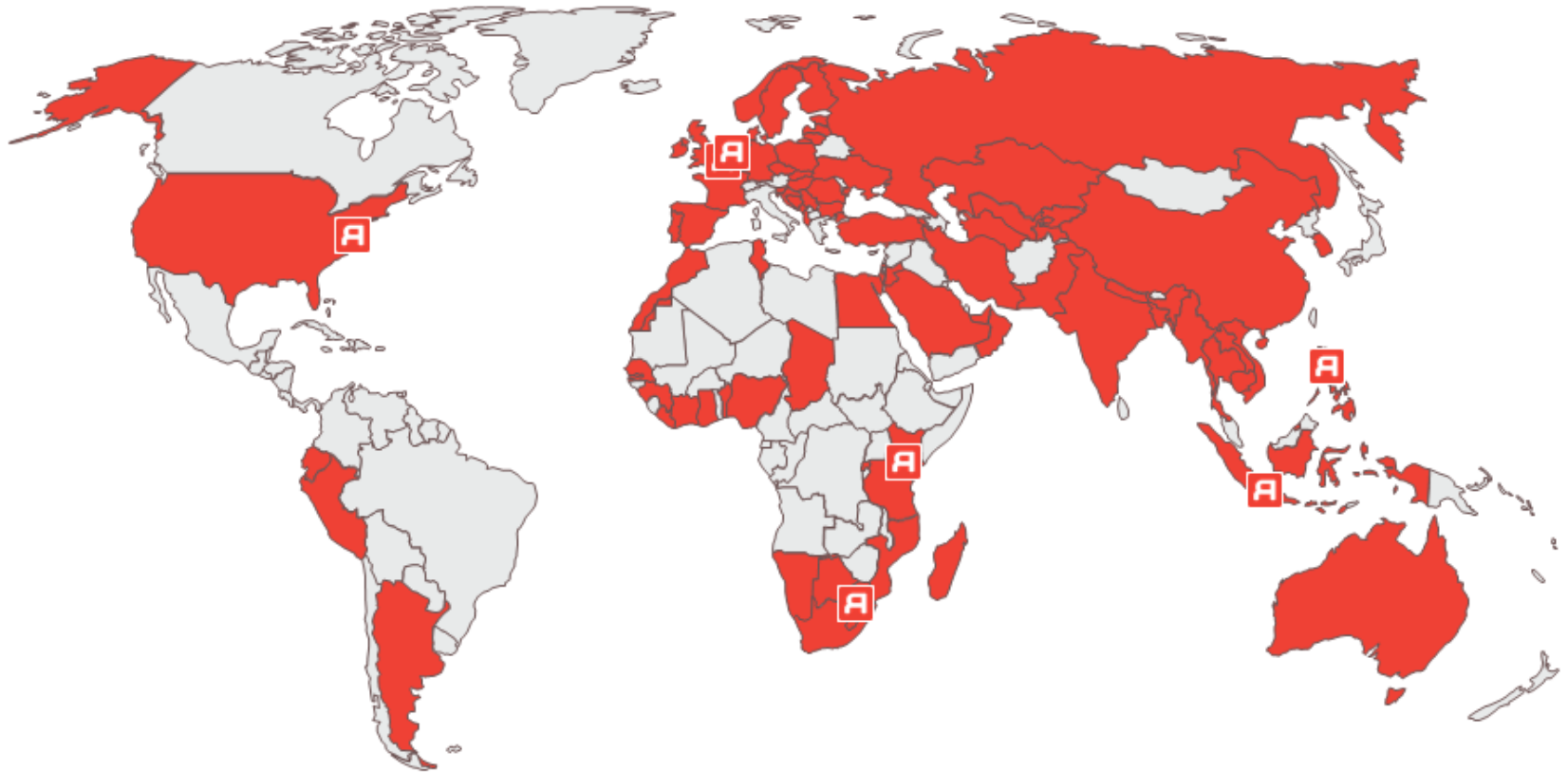


Agenda

1. Short introduction
2. EU waste dynamics can serve as input for US market situation
3. EU waste frame directive and increasing recycling ambitions within the EU
4. Example of the effects of a landfill tax for export and import of waste: UK case
5. Advantages of export and import on supra national level
6. Conclusions and lessons learned from EU-perspective



Short introduction: Lenny van Klink, IMGRebel



Rebel runs **offices on 4 continents** and its experts have been active in the development of infrastructure in more than **80 countries**.

Core competence: bridge the gap between infrastructure needs and financial resources by focusing on developing **public-private partnerships (P3s)**.



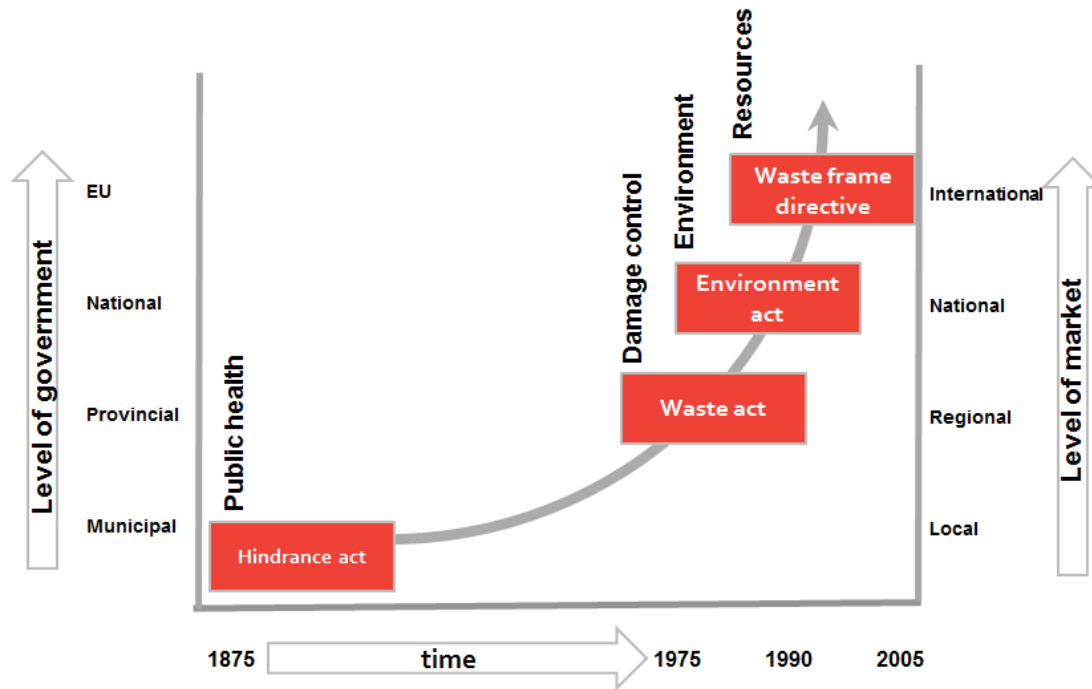
Waste dynamics in the EU can be used as a guide book for the inequity which exists in the US market: landfill vs Waste-to-Energy



Lessons learned



Within the European Union member states have to comply with the waste directive legislation



Waste hierarchy of the European Commission:





EU Commission recently increased its recycling targets creating huge challenges for the coming years

	EU Current	New EU targets 2030	Netherlands Current %	UK Current %
Current overall recycling percentage ¹	40%	70%	61%	39%
Glass	60%	90%	90%	60%
Paper	60%	90%	75%	60%
Plastics	22.5%	60%	42%	22.5%
Metals	50%	90%	85%	50%
Wood	15%	80%	25%	15%

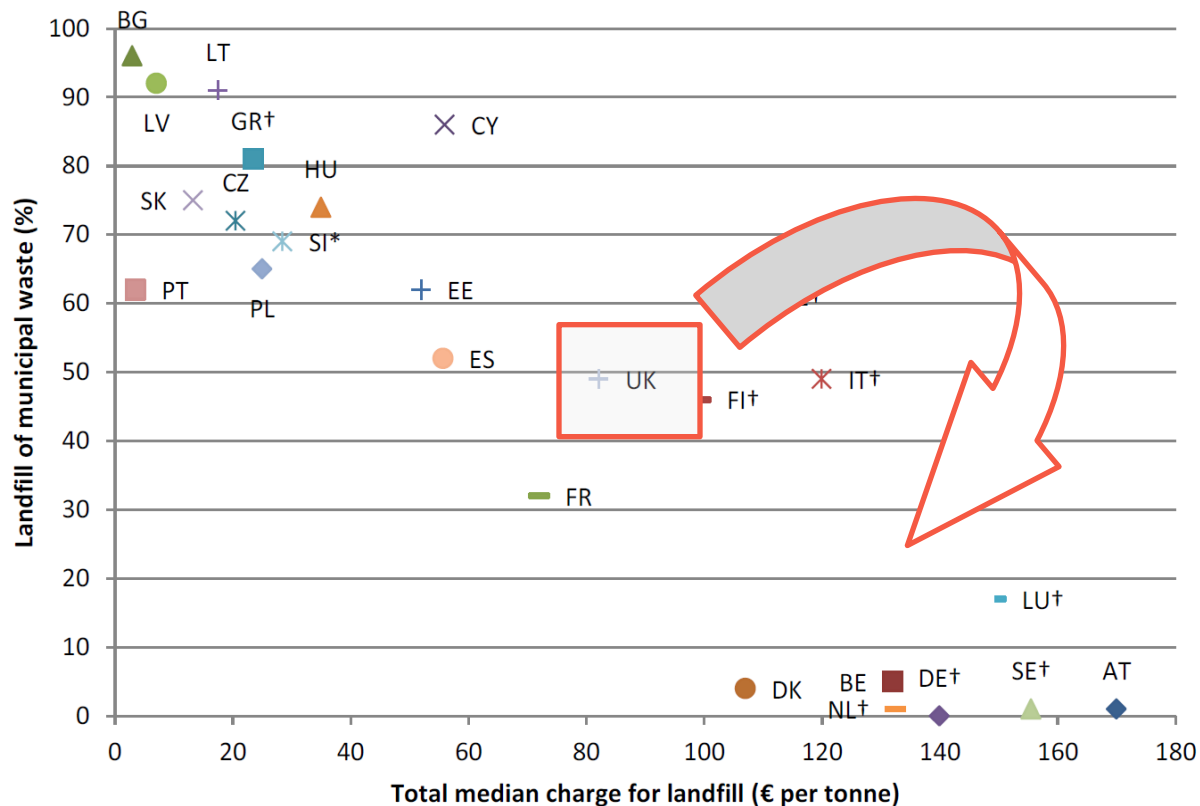
Extended Producer Responsibility (EPR) for packaging is a policy approach that extends the producer's responsibility for a product beyond their current scope to also include the management of their product's **packaging** after the product has been used by consumers (**polluter pays principle**).

1) Including composting



Case UK: Landfill Tax as a tool for reduction and reuse

Figure 1 Total median landfill charge and percentage of MSW landfilled, 2009



The introduction of a **landfill tax** in the UK through the EU Waste Framework Directive has forced the landfilling of waste to become **(intentionally) cost-prohibitive**.



Introduction of the landfill tax and insufficient Waste-to-Energy capacity has made it worth investigating processing waste abroad

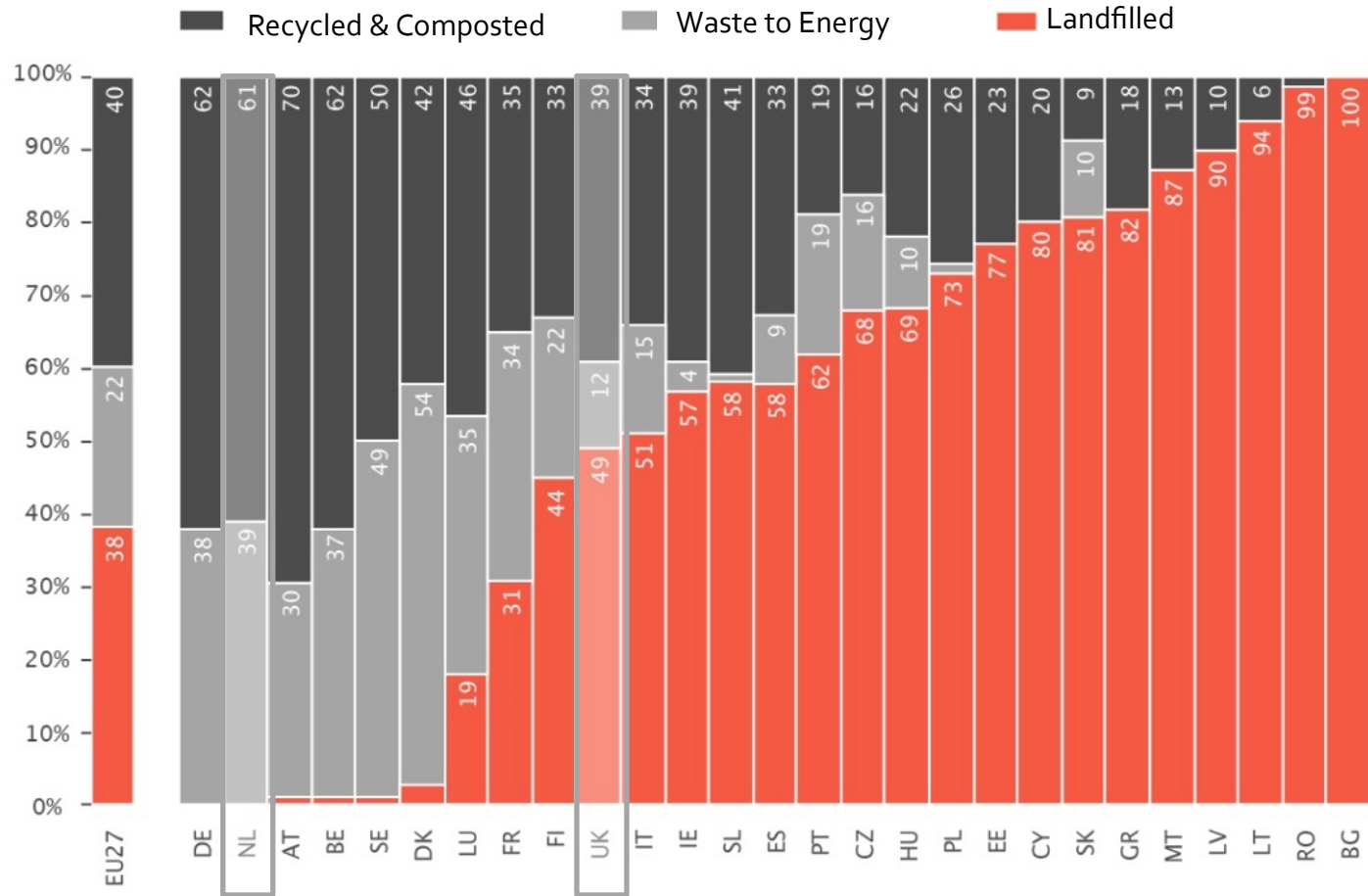
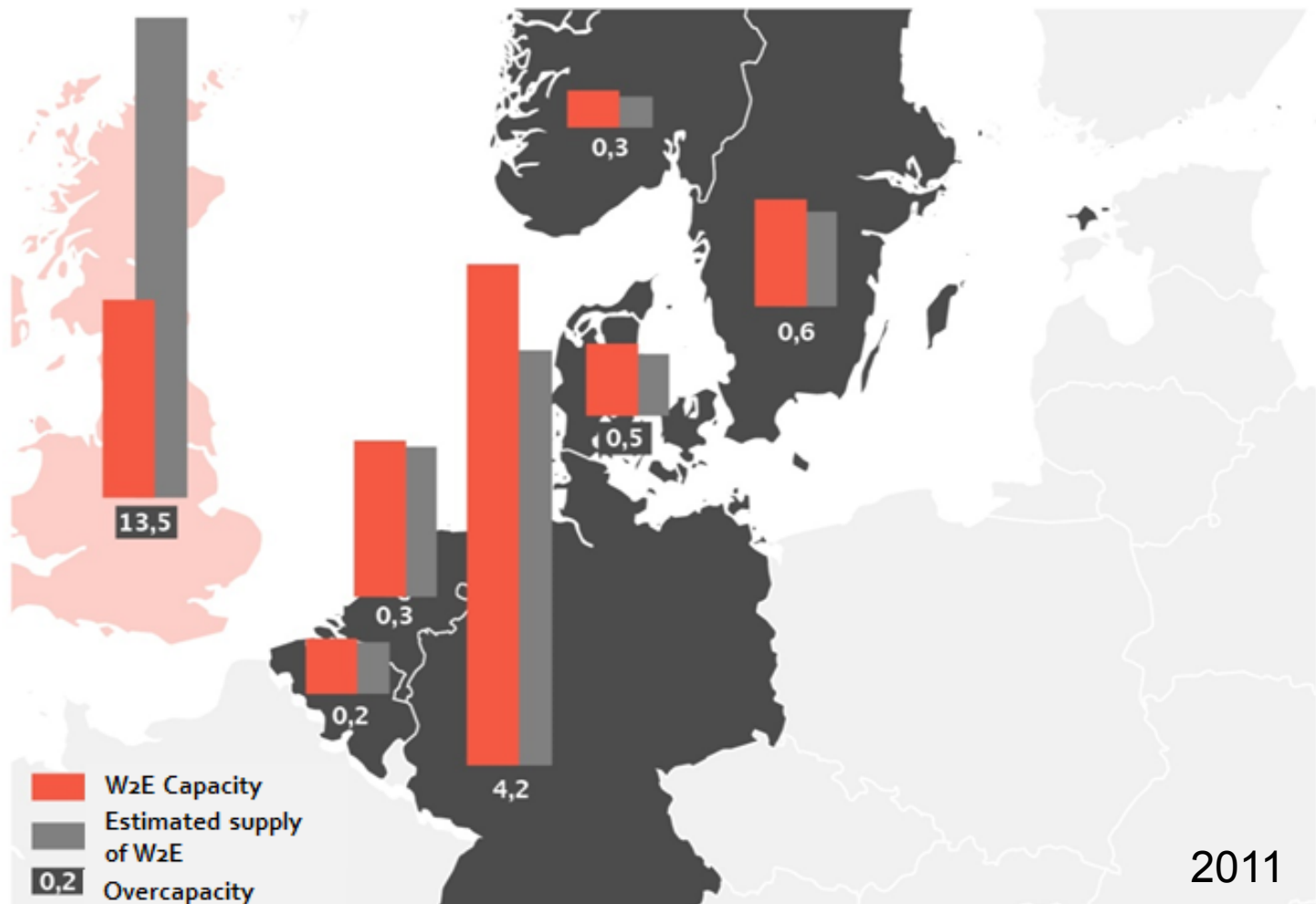


Figure 10 years' momentum in Waste-to-Energy, CEWEP, September 2012; Municipal waste treatment in 2010, Eurostat 2010



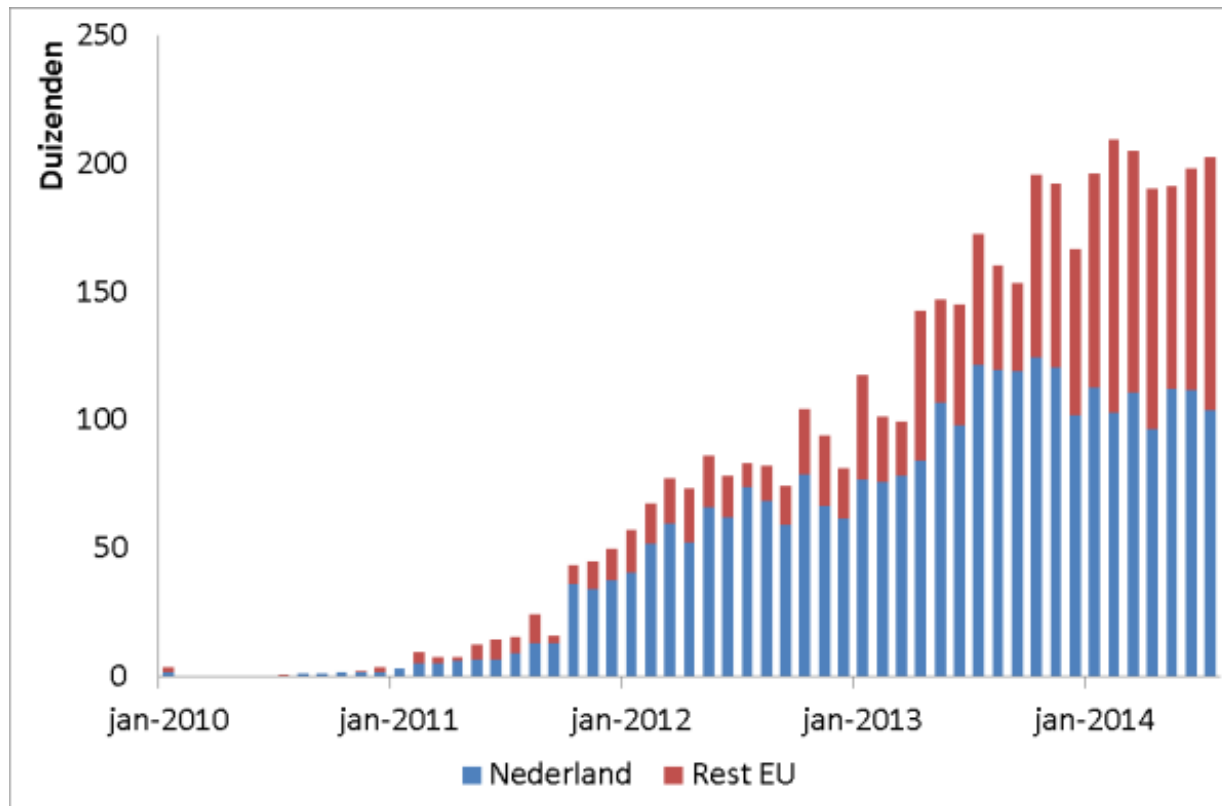
2011; a rally started to export UK waste due to insufficient Waste-to-Energy capacity and critical level in landfill tax



Data 2011, Agentschap.nl, August 2012; UK Waste Exports: Opportunity or Threat?, Tolvik, June 2011; Residual Waste Infrastructure Review, Eunomia, May 2012; Local Authority collected waste for England – annual statistics, Defra, November 2011



Export of RDF from the UK has seen exponential growth over the last four years



UK export:

2011: 0.3 mln tons

2013: 2.2 mln tons; of which 1.5 mln tons to NL

2014: 1.5 mln tons first 7 months!; >700k tons to NL (= 15% of total capacity).



Export and import of waste creates advantages for both countries

UK



- Insufficient Waste-to-Energy capacity
- Powerful NIMBY presence
- DEFRA Call for Evidence

The Netherlands



- Overcapacity situation being satisfied
- R1 status
- Intermediate sustainable solution on EU level



Conclusions and lessons learned from an EU-perspective

- A policy-driven landfill tax, combined with a landfill ban and strict enforcement, the development of W2E, and more aggressive recycling rates are successfully diverting waste from landfill.
- There is a risk that at any point in time overcapacity in W2E will occur due to decreasing waste volumes and higher ambitions for recycling and re-use. To prevent a race-to-the-bottom long term capacity planning is of the utmost importance.
- From a financial point of view investments in W2E are regarded as long term infrastructure assets, provided they operate in a stable regulatory environment and cash flows are secured through long term input contracts.
- Long-term investments in W2E infrastructure can truly be optimized if one is able to look beyond country (or state) borders in viewing the export/import of waste as a renewable energy source and as long as it stays within regulatory guidelines.
- Starting point is the waste hierarchy: focus the emphasis on getting the most energy out of residual waste rather than getting the most waste into W2E.



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