

WtE – Opportunities and challenges from a Swedish perspective

SAARC webinar on Waste to Energy:
Opportunities and Challenges



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IEA Bioenergy TCP

- Mission and scope
 - Increase knowledge and understanding of bioenergy systems => facilitate commercialisation and market deployment of environmentally sound, socially acceptable and cost-competitive bioenergy systems and technologies and to advise policy and industrial decision makers
- Activities
 - International collaboration and information exchange on bioenergy research, technology development, demonstration, and policy analysis => focus on overcoming barriers to the near- and long-term deployment of bioenergy technologies.
 - 10 Tasks & strategic projects, cover the full value chain from biomass feedstocks to final energy product. => reports/publications, workshops, webinars; increased focus on outreach & communication!

Website: www.ieabioenergy.com

	IEA members	Partner countries	Intergovernmental
Contracting Parties	20	3	1
Sponsors	-	-	-

IEA Bioenergy Task 36 – Integrating Energy recovery into solid waste management

- Working group for exchanging knowledge and best practice within policy, technology, research & innovation
- 2 meetings/year usually associated with a themed workshop and a technical visit.
- Some smaller studies/case studies that are published as task reports
 - Pretreatment of waste for gasification
 - Drivers and barriers concerning feedstock recycling
 - Trends in the use of SRF
- Current members: France, Germany, Italy, Sweden
- New work programme is under development for 2019-2021

Task36.ieabioenergy.com

RISE

- Present across the whole of Sweden. And beyond.
- 2,300 employees, 30 % with a PhD.
- Turnover approx. SEK 2.7 billion (2017).
- A large proportion of customers are SME clients, accounting for approx. 30 % industry turnover.
- Runs 100s of test and demonstration facilities, open for industry, SMEs, universities and institutes (RISE is owner and partner in 60 % of all Sweden's T&D facilities).



RISE

With our broad range of **competencies** and **unique expertise**, we create added value



Waste Refinery

Network/Cooperation
between academia, institutes,
society and industry

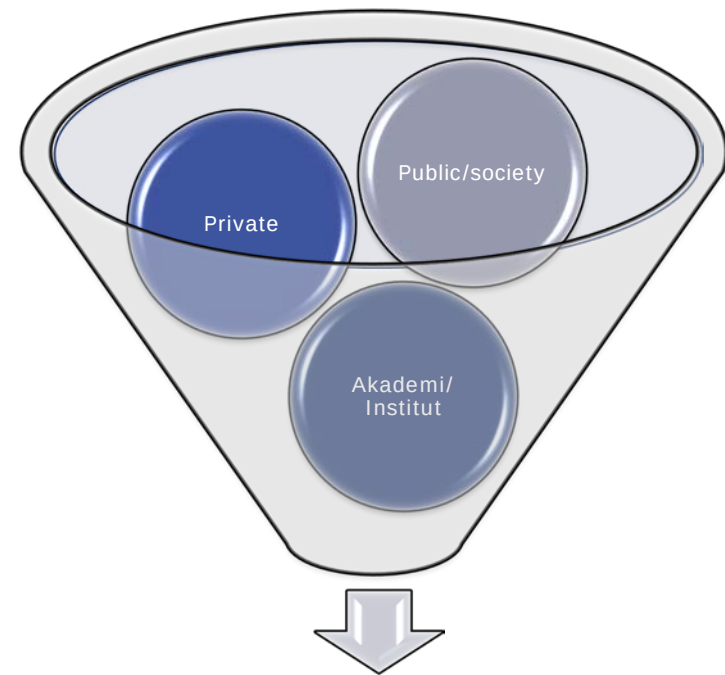
Common projects in cooperation

Research funding

Network/contacts

Testbeds

Seminars



Common goal

What do these cars have in common?



Just about as much as these...



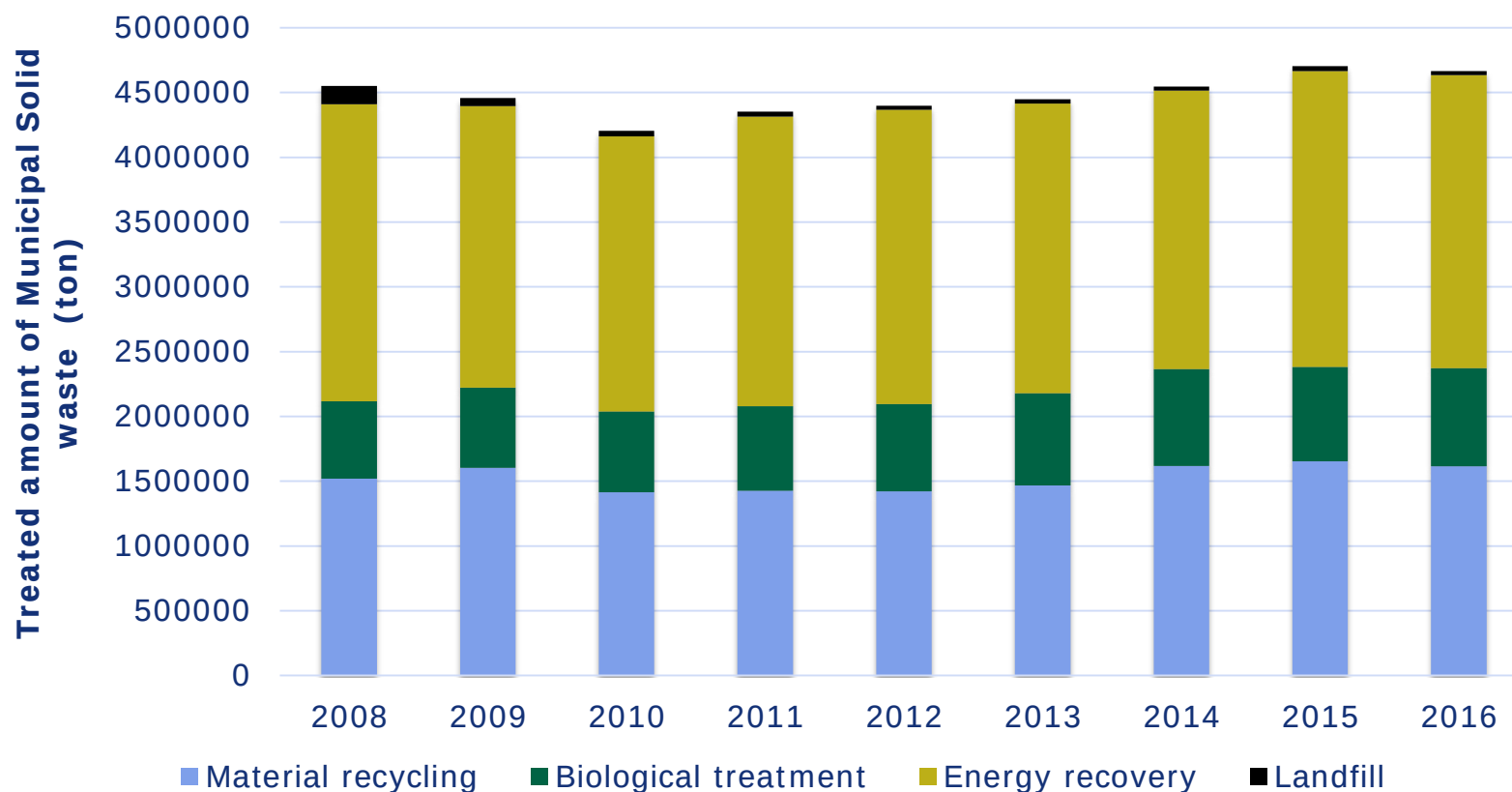
Photographer: Andreas Offesson



Waste generation in Sweden

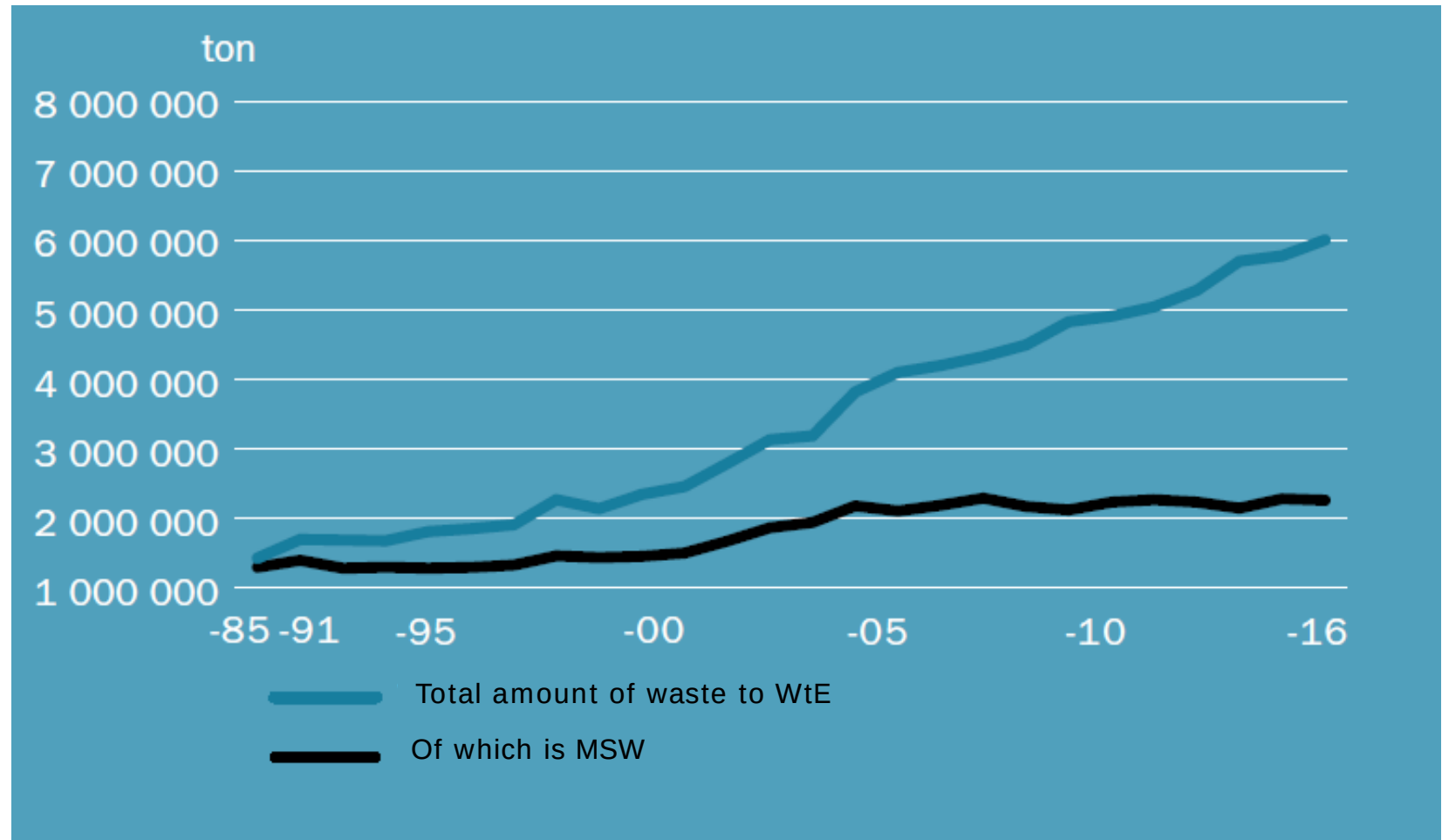


Overview of waste management (MSW) in Sweden

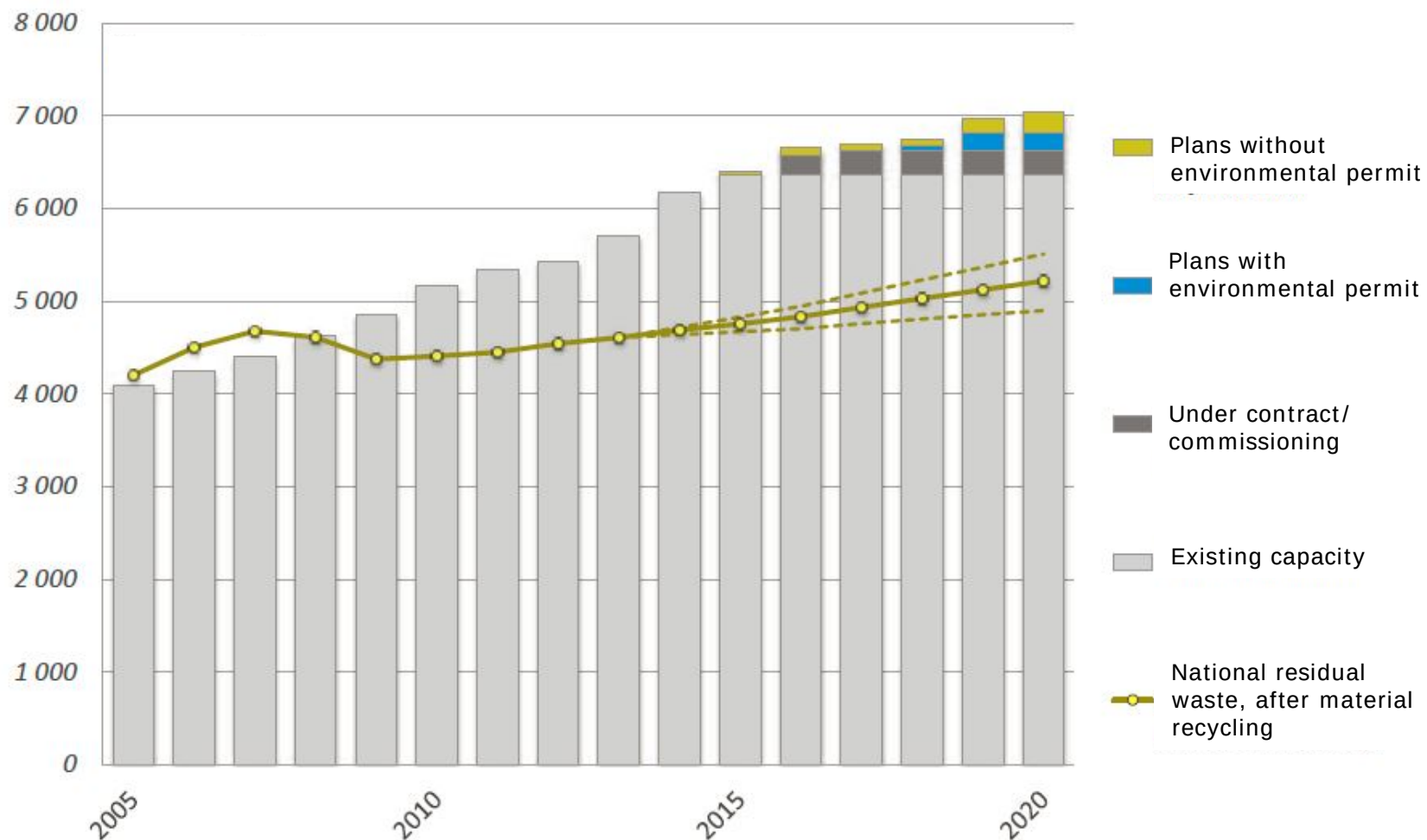


Source: Avfall Sverige – Swedish waste management

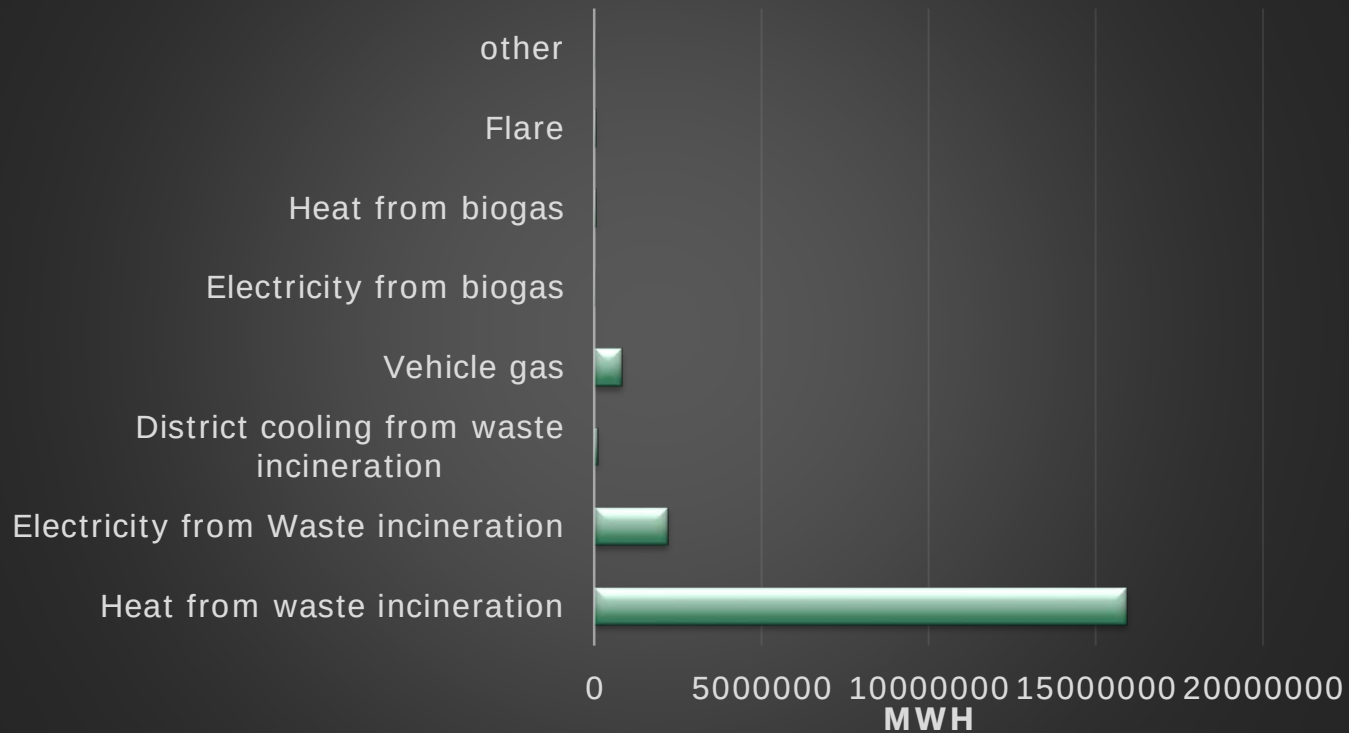
Development of WtE in Sweden

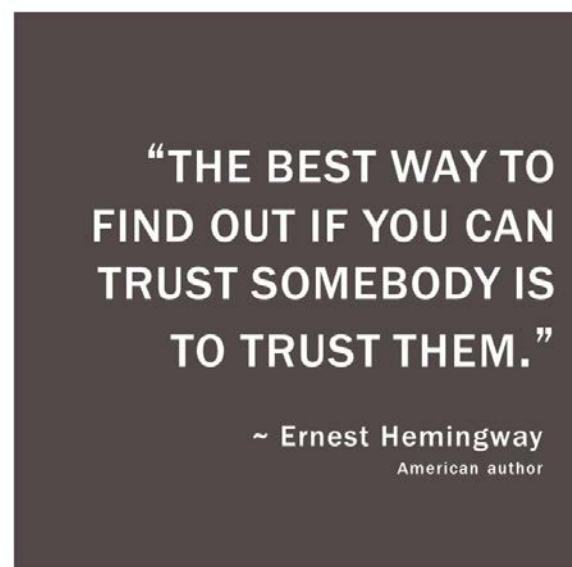
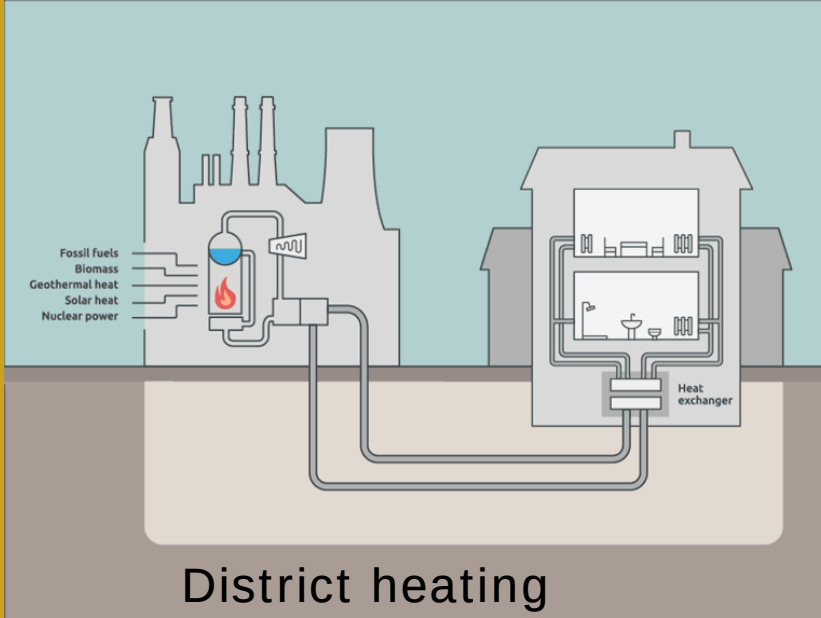


(kton)



Energy generation from WtE in Sweden





Source: people-equation.com/trust-as-renewable-resource



Cooperation

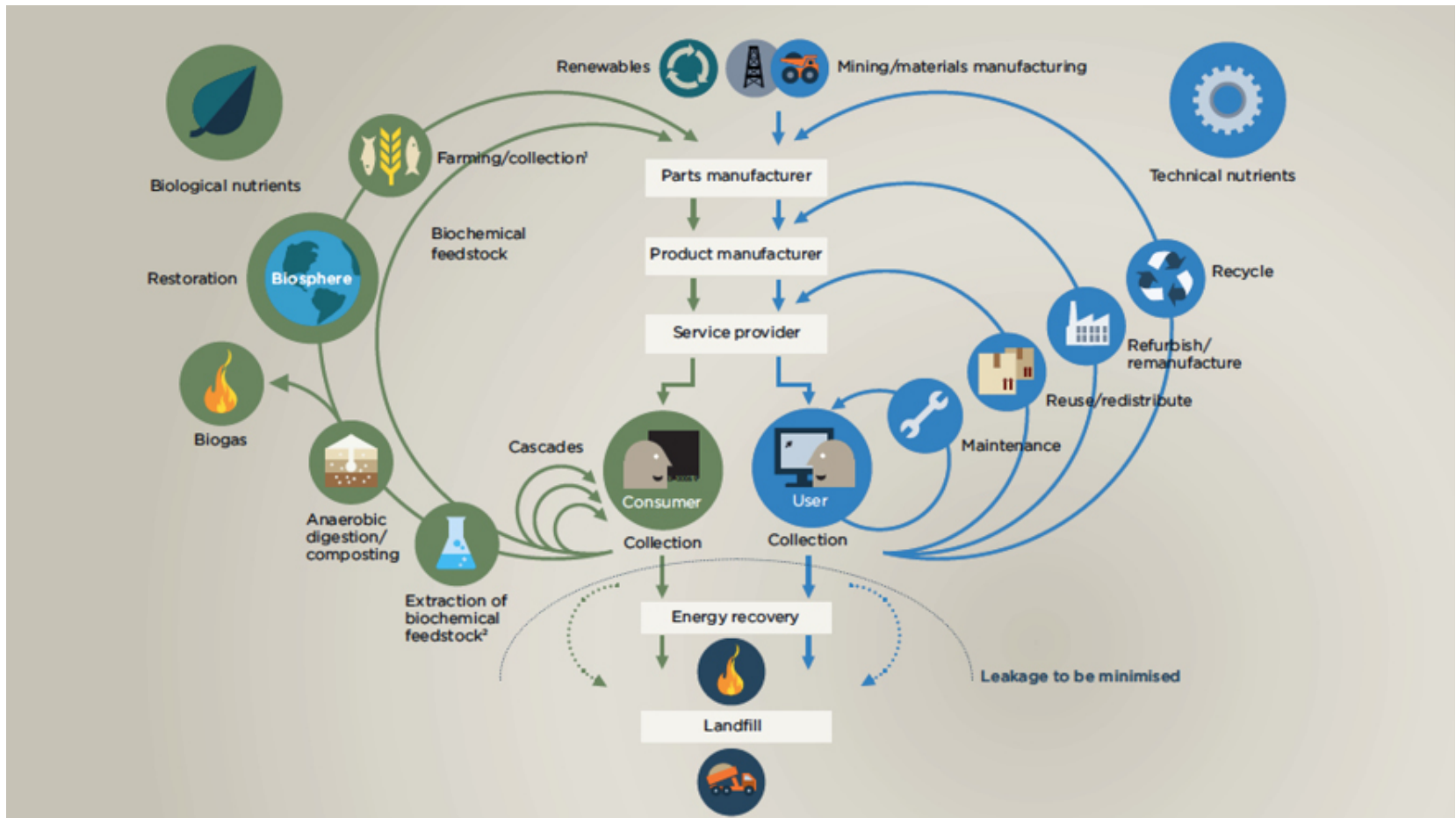




Looks do matter...



What is the role in the circular economy?



Picture source: Ellen McArthur Foundation

A growing demand for fossil free energy production (district heating)- how to consider the plastic material in waste going to WtE?



Residues/ashes...



Legislation

Legislation is the process of making or enacting laws by the legislative branch of a government or a law or set of laws that govern a government and its actions.

Summary

- WtE can contribute to a better waste management and provide (partly) renewable energy- but it is a part of the solution- not the solution in itself
- Co-operation towards common goals important
- Learn from each other and others
- Openness towards the public
- A political will (at least not hinder)
- A legislative framework needs to be in place
- Do not compromise on safety/emissions



Thank you!

IEA Bioenergy



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