Waste incinerator or flexible energy provider? Together we're smart!

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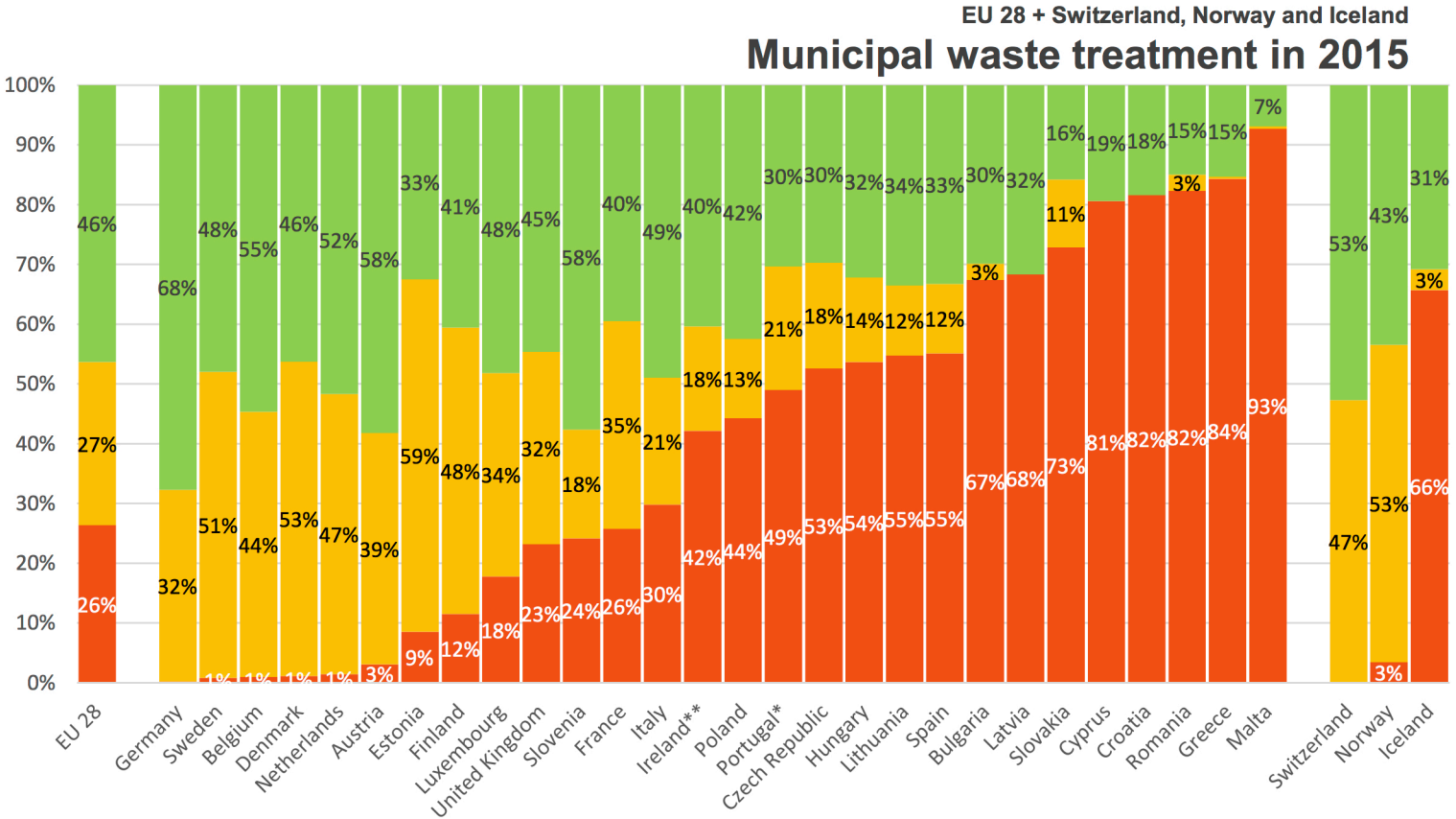
District heating workshop Antwerp – 22 november 2018

- Founded in 1975
- Non-recyclable residual waste
- >1 mio citizens
- 100% waste from own shareholders
- 140 KT + 40 KT
- Operational since 1980
- Permit until 2025
- Electricity for >25.000 households

FLANDERS

- 71% sorted
- 28% waste-to-energy
- <1% landfill

Recycling & WtE complementary to divert waste from landfills



Graph by CEWEP, Source: EUROSTAT 2017

* : 2014 data (most recent data available)
**: 2012 data (most recent data available)

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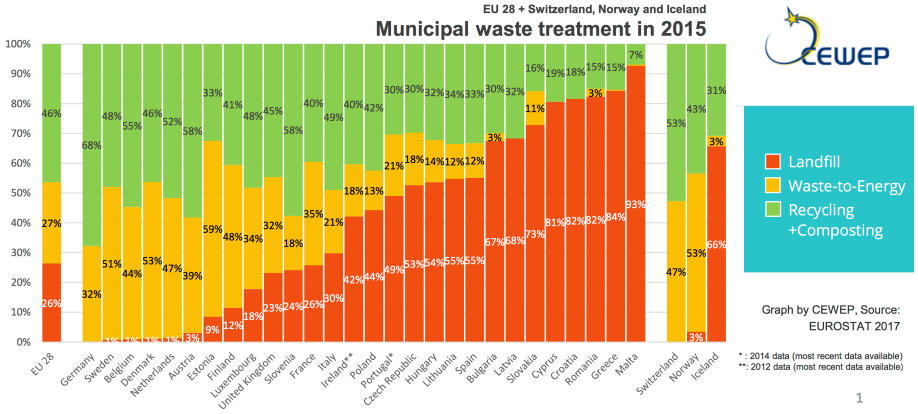


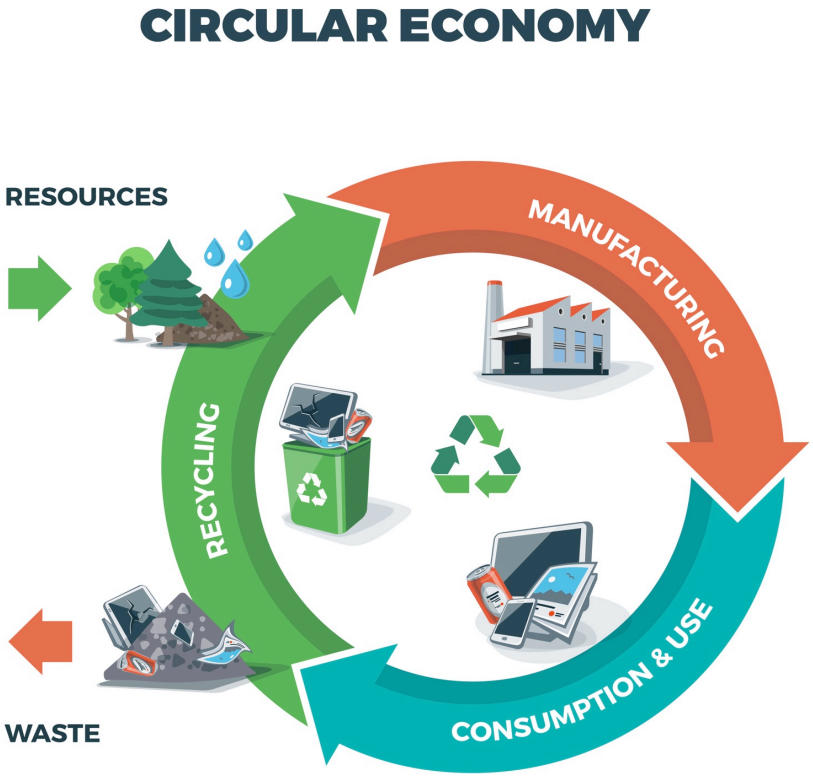
Does waste-to-energy threaten or substitute recycling?

No!

Minimizing waste in everyday life is necessary!

But…

Zero Waste = Utopia



Even in a circular economy, we need a sink to remove non-recyclable materials.

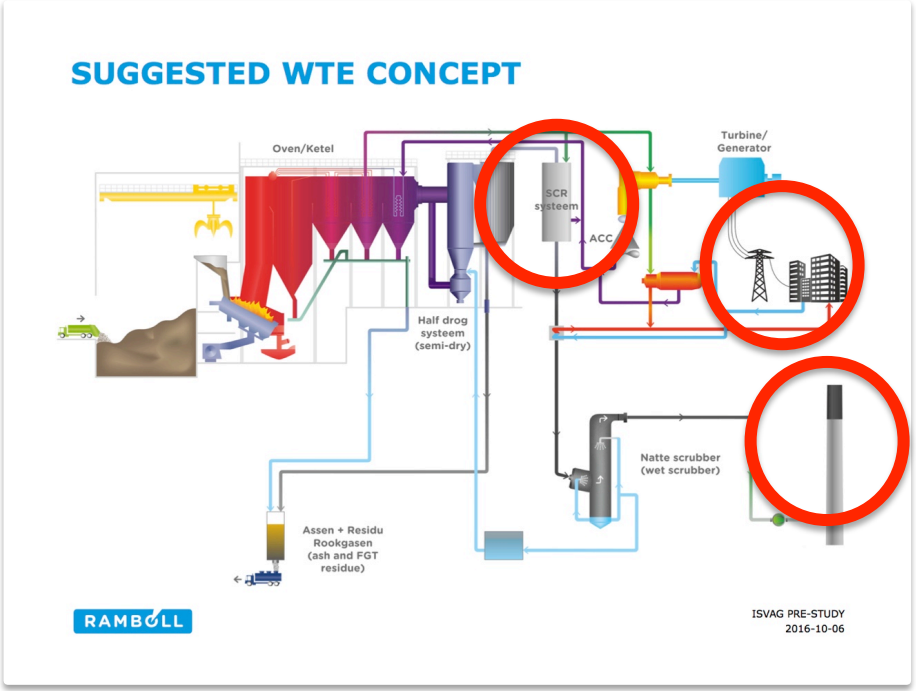
Waste-to-energy keeps the urban metabolism healthy by removing polluted substances.

In the coming decades, the global and Antwerp population will continue to grow. At the same time, we have ambitious objectives to further reduce the amount of residual waste per inhabitant.

Non-recyclable household waste is a very specific and heterogeneous substance.

Science is evolving. New techniques are being developed for specific waste streams.

Extensive research confirmed that a state-of-the-art waste-to-energy plant is the only available proven technology which is robust enough to treat residual waste today (BAT).



Difference?

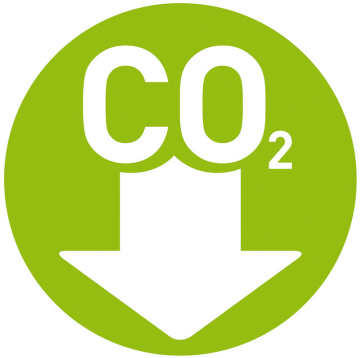
1. Catalytic DeNox
2. Power + district heating
3. Extremely low emissions

District heating

- Crucial in decision location
- Step-by-step
- First stage: 1,6 km to nearby companies (3MW - Partners: POM Antwerpen en Rio-link, Stad Antwerpen)
- Second stage: 12 km to city (>50MW - Partners: Fluvius, Stad Antwerpen)
  + include other sources

Evolving energy landscape

- Security of supply
- From base-load to flexible peak-load
- Communicating vessels: electricity, district heating, hydrogen



WHY?

Heating of houses in Flanders is predominantly fossil.

District heating has enormous potential in terms of avoided emissions.

A city-wide district heating network is a crucial asset for Antwerp in achieving its climate targets.

CHALLENGES?

- Flemish expertise still needs to grow
- NIMBY – political and societal acceptance
- Required investments versus “NMDA”

Critical success factors?

1. Continue to believe in success: pulling, dragging, continually adjusting, keeping a finger on the pulse…
2. Take time to identify stakeholders and identify win-win. Give customers time to make decisions.
3. Different powers at Flemish level
4. Dare!!

Thank you!

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