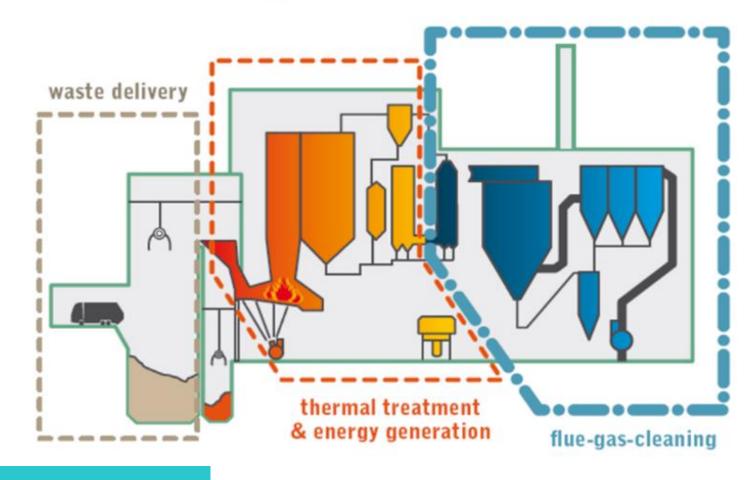
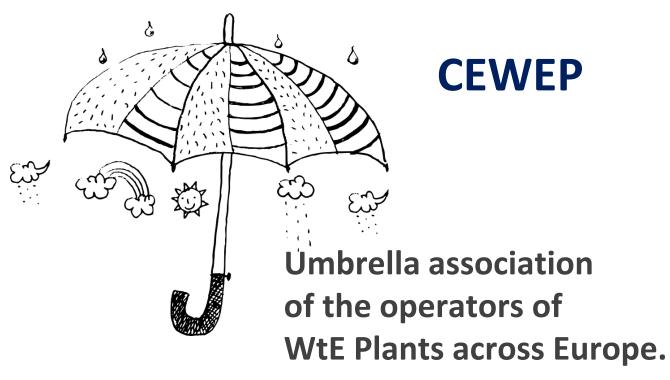
Cewep Confederation of European Waste-to-Energy Plants

Circular Energy – How Waste Contributes to Clean Cities & Mobility

Waste-to-Energy Plant



Paul de Bruycker, President of CEWEP/CEO Indaver Strasbourg, 22nd October 2019



WtE in Europe in 2017

- WtE Plants operating in Europe (not including hazardous waste incineration plants): 492
- Waste thermally treated in WtE plants (in million tonnes): 96





What to do with residual waste in the Circular Economy?

- The waste concept remains important, also within the CE:
 - Residues, used goods, objects without any (subjective) value for the holder should be taken care of
 - Waste regulation needs to assure that those materials will not be spread in the environment and will be recovered/reused as much as possible



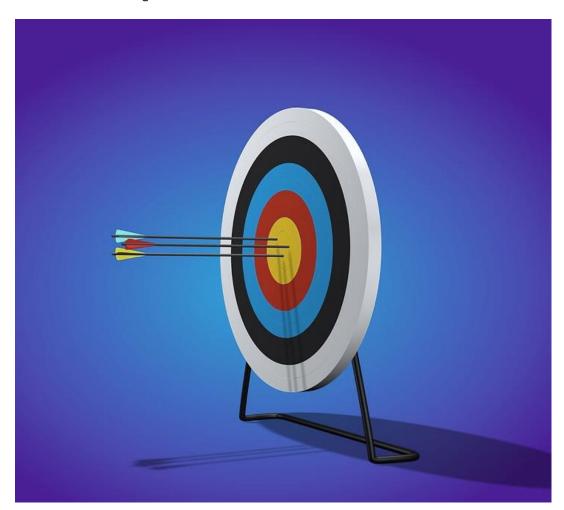
- The role of waste companies within the CE:
 - a logistic role (collect small amounts at different locations and deliver the necessary quantities to the production/treatment sites)
 - Pre-treatment in order to remove unwanted and/or hazardous components:
 - inorganic (Hg, As, Cd,...) treatment and safe sink
 - Organics Wt
- Keep the materials clean and safe.

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Where are we heading? Circular Economy targets for municipal waste

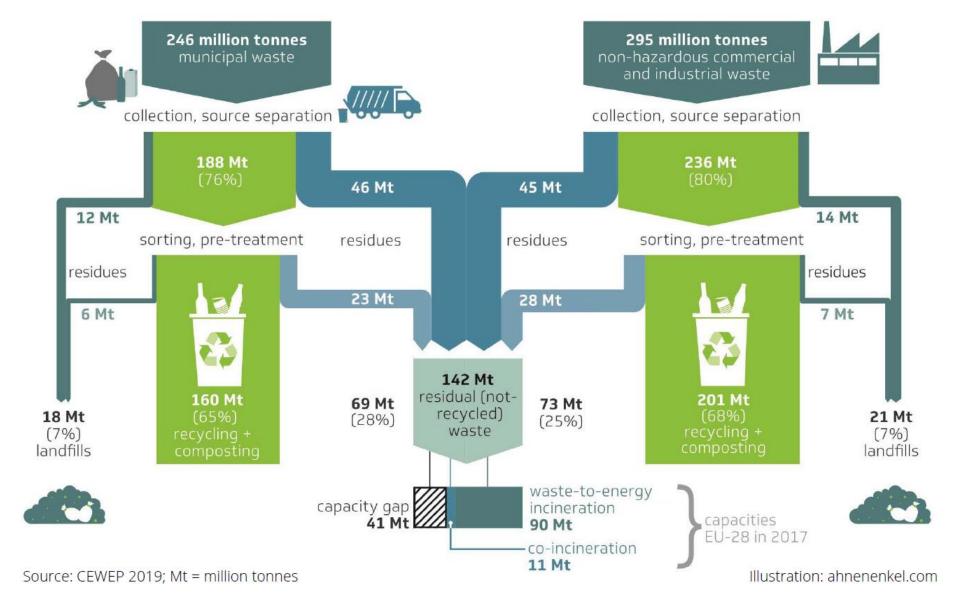
Recycling target 65%

Landfill target 10%





Residual waste treatment in 2035





Waste-to-Energy - Enabler of Circular Economy

- Turns non-recyclable waste in an environmentally safe way into secure energy and valuable raw materials;
- Keeps the circle clean by dealing with unwanted organic components in the material cycles (act as a pollutant sink, fulfilling a hygienic task for the society).













Reducing Greenhouse Gases:

How to decrease greenhouse gas emissions?



More than 153 million tonnes of additional CO2eq savings could be achieved by:

- Diverting waste that is currently landfilled to quality recycling and Waste-to-Energy
- By substituting fossil fuels used for the generation of energy with Waste-to-Energy



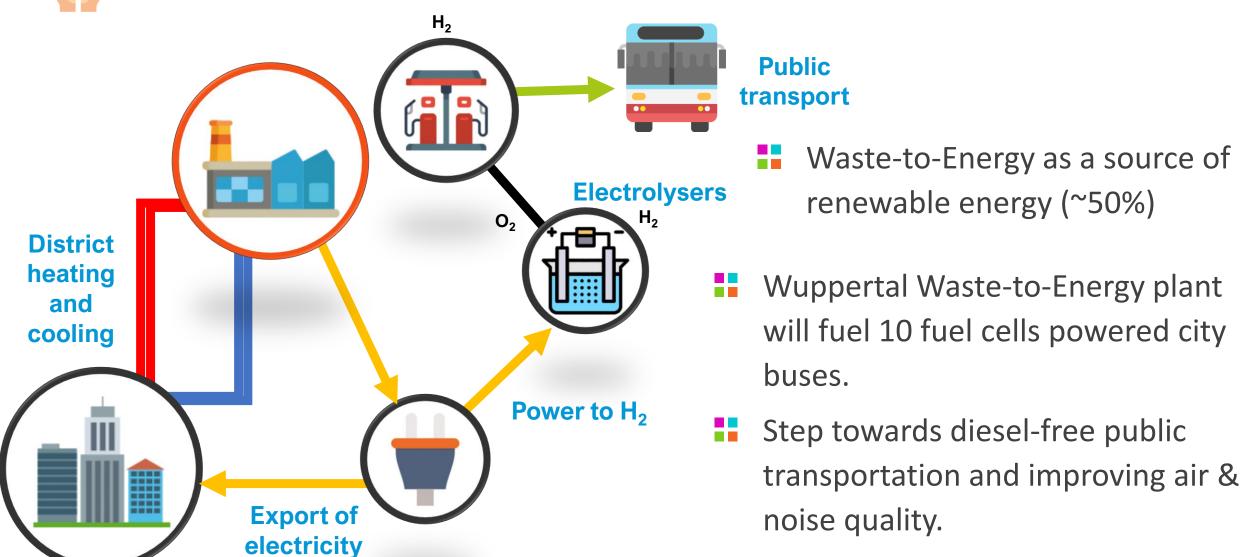
Belgium: Industrial symbiosis in the port of Antwerp



- Energy cluster: steam from Wasteto-Energy to chemical companies
- Sustainable and reliable energy supply for industry
- Important pillar in energy and competitiveness policy of the Flemish government



Germany: Cleaner Air with Hydrogen in Wuppertal





In order to achieve goals the WtE sector needs:

- Debate on the residual waste that will still need treatment in 2035.
- Recognition that **WtE goes** hand in hand with **Quality recycling in the EU**and plays a key role by treating waste that is contaminated with

 substances which are not fit for recycling.
- Appropriate infrastructure linking heat or process steam customers to WtE plants in order to utilise energy from waste even more efficiently.
- Recognition of the recycling of the mineral fraction of bottom ash.
- Future EU waste legislation that sets targets for landfill diversion

Thank you for your attention!



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