

Energise your waste!



Waste-to-Energy Technologies Today

What Technologies
can we provide for the Environment

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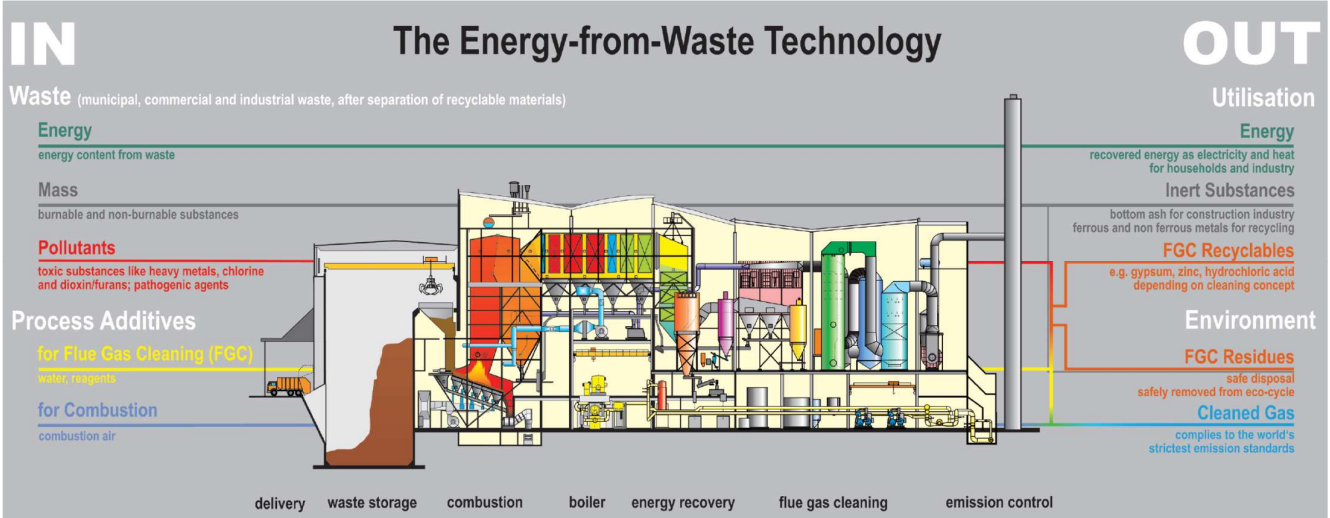
About us



- ESWET is an association grouping the European Suppliers of Waste-to-Energy Technology (WtE), also called Energy-from-Waste (EfW)
- We design, supply and install the technology for incineration of municipal waste, energy recovery and flue gas cleaning
- Our members supplied over 95% of the European Energy-from-Waste plants



Our solution to many issues...



What the law demands We provide the solution



What the law demands	We provide the solution
Better Waste Management (Waste Hierarchy)	+ Safe treatment of unrecyclable waste + Energy recovery from unrecyclable waste + Recovery of materials for reuse
Cleaner Energy and Fight Climate Change	+ Fighting Climate Change, 50% Renewable Energy + High Energy Efficiency when used as CHP
Clean Air	+ Safely isolates pollutants from the eco-cycle + Cleaner than any other combustion industry



What the law demands: Better Waste Management



The law says: *Produce less waste, recycle, then Energy-from-Waste is preferable to landfilling (EU Waste Hierarchy)*

We provide the solution:

- Take any waste that is not recyclable and recover its energy
- Much safer than landfilling, which buries energy and materials
- Allow the recovery of metals and construction materials

Outcome:

Energy-from-Waste is part of the best waste management solutions



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What the law demands: Cleaner Energy, better Climate



The law says: *target to 20% renewable energy, 20% less Greenhouse Gas Emissions, improving Energy Efficiency*

We provide the solution

- 50% of the waste is biomass, a carbon-neutral renewable energy
- Avoid methane emissions from landfills
- Energy production offsets the use of fossil fuels
- R1 Formula is pushing for high efficiency using the energy recovered
- Location of plants near cities reduces transport and facilitates use of Combined Heat and Power

Outcome:

Energy-from-Waste fights climate change, produces partly renewable energy and is increasingly energy efficient



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What the law demands: Cleaner Energy, better Climate



Example:

Energy-from-Waste and District Heating

- Best efficiency is to use Energy-from-Waste low pressure and low temperature steam (120°C and 20 bar)
- Major reduction in Greenhouse Gas Emissions (offsetting fossil fuels' extraction, transport and combustion)
- 50% of waste is biomass = 50% Renewable Heating

We as suppliers provided such a solution in many locations.

We adapt our technology to the local requirements with a boiler efficiency of >80%



What the law demands: Clean Air



The law says: *mandatory use of Best Available Techniques for pollution abatement (Waste Incineration Directive; Industrial Emissions Directive)*

We provide the solution:

- Air Pollution Control captures the pollutants present in the waste so that they are not emitted into the air
- Safe handling of pollutants eliminates them from the eco-cycle, and permanently prevents them from re-entering the environment
- Setting the example in Flue Gas Cleaning, WtE shows it is possible to reduce air emissions from considerable to negligible

Outcome:

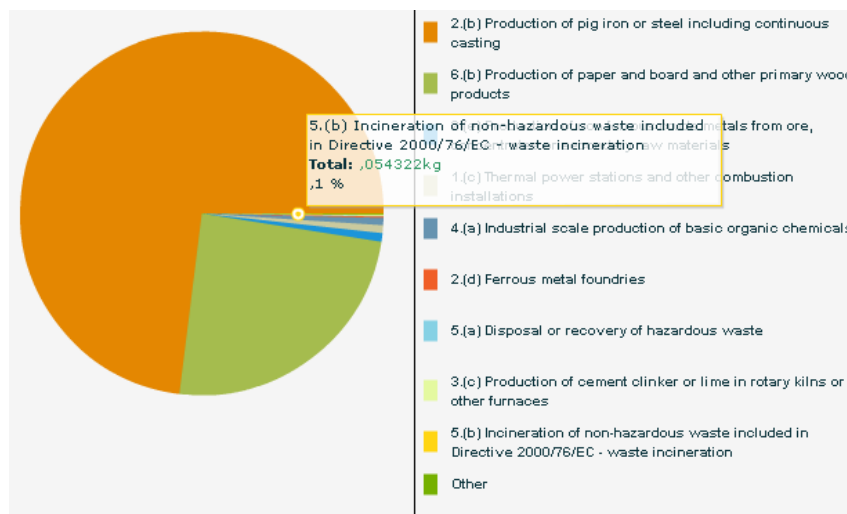
Energy-from-Waste is the cleanest of all combustion sectors



What the law demands: Clean Air



Example:
Dioxins Emissions from Industries in the EU-27, data from 2007



Screenshot from the E-PRTR, European Pollutants Release and Transfer Register
<http://prtr.ec.europa.eu/PollutantReleases.aspx>



Insight into the WtE Market Europe



Many European countries use Energy-from-Waste as an integral part of Waste Management

There are many drivers for Energy-from-Waste:

- Landfill Directive + Waste Framework Directive Mandatory
- Energy and Climate Package Opportunity
- EU financing is available Opportunity

But we expect only few European countries to move seriously towards more Energy-from-Waste in the near future:

- United Kingdom
- Poland

Many pressing environmental issues mean that we cannot wait!



Insight into the WtE Market

Other countries



In the USA and Canada, there is renewed interest in Energy-from-Waste; extensions and new plants are in execution / under planning

South America shows interest, but except for Brasil little activity

Japan is picking up again

By far the fastest growing market is China

But market with its own rules (very low prices, strong push towards 'localised' technologies, less and less involvement of foreign suppliers)



Conclusion



The Technology is there
Implementing it makes sense:

=> Energise your Waste



Energise your Waste!



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