Waste to Energy in brief

- Essential part of a sustainable Waste Management chain
- Fully complementary to recycling
- Produces valuable and renewable energy
- Has a low carbon footprint by:
 - Avoiding Methane emissions from landfill
 - Offsetting the use of fossil fuels
- Removes all toxic substances from residual waste streams
- Is needed to achieve a Landfill diversion rate of up to 95%
- Helps diversifying energy sources
- Reliable European technology

More Waste to Energy means less Greenhouse Gas emissions, less fossil fuel energy dependence and a cleaner and safer environment.



European Suppliers of Waste to Energy Technology

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Energy-from-Waste





Did you know?

Carefully sorted residual waste contains on average 10,000kJ/kg of energy. Therefore, each kilogram of waste could power a 12W eco-bulb (~60W conventional bulb) for 75 hours.

Integrated waste management, a sustainable source of green energy

Modern integrated waste management policy is based on a combination of waste prevention, sorting and separate collection, maximised recycling of used goods and energy recovery from waste. This policy results in minimised landfilling, with a landfill diversion rate of up to 95%. This approach shows that Waste-to-Energy is the only method for addressing the problem of residual waste other than landfill. The benefit is that the energy can be recovered from the waste in the form of heat and/or electricity.

A tool to fight climate change

Changing the approach towards waste by using it as a resource automatically reduces the use of fossil fuels, therefore reducing the CO_2 emissions.

With Waste to Energy, Europe saves 30 million tonnes of CO_2 every year by avoiding the use of Coal, or 15 million tonnes when replacing Natural Gas. Waste to Energy helps diversifying energy sources and secures future fuel supplies.

As a residual waste management solution, Waste to Energy has a lower carbon footprint than landfilling because it does not emit methane and up to 60% of its content is carbon-neutral biomass.



WtE – caring for tomorrow's world

Untapped energy source

Today, the energy produced from Waste in Europe is enough to supply the equivalent of Ireland or Slovakia with electricity. ESWET's target is to see Europe meeting its 50% recycling rate objective, as set by the Waste Framework Directive, and reaching the potential 4-fold increase in the energy produced from waste compared to today.

Clean energy generators

Getting the maximum energy out of the waste requires high-tech process engineering and a lot of experience. It is exactly this knowledge and expertise which ESWET can provide through its members.

Closely monitored, the flue gases are treated before exiting the plant. Modern Waste to Energy plants, as part of an integrated waste management policy, have the lowest emission levels of all Industrial sectors.¹ They are but a mere shadow of the waste



WtE - preparing

a cleaner future

incinerators of the past. It is clear that Waste to Energy is the only way of safely removing toxic substances from the world's residual waste streams.

¹ See the E-PRTR data available at: <u>http://prtr.ec.europa.eu</u>

WtE - How does it work?

The Waste to Energy plant receives the residual waste and incinerates it. The energy (electricity and/or heat) is recuperated and fed into the appropriate network, while the flue gases are thoroughly cleaned before exiting the plant.