



# Let's not waste our waste

Hazardous waste treatment and energy recovery are vital elements in the circular economy

In a circular economy, the value of products, materials, and resources is retained for as long as possible, and the generation of waste is minimised. It is recognised across the globe that resource efficiency and a circular economy, which include waste prevention and the effective use of recovered materials, can drive economic growth. But a circular economy is not a closed loop, as there are always some materials which must be extracted from the cycle to ensure the safety and quality of the materials in circulation.

Waste is a global challenge and there are widespread problems associated with it. These include waste trafficking, uncontrolled dumpsites, wastes that contain unwanted hazardous substances, and marine litter. We must find solutions for all of these concerns and ensure access to proper waste management for everyone.

Global megatrends will continue to significantly impact Europe over the coming decades, as the growing middle class increasingly adopts the resource-intensive consumption patterns of advanced economies. Consequently, the total environmental burden is rapidly moving beyond

globally sustainable limits. There are estimations that the amount of municipal solid waste will double from around 2 billion tonnes today by 2025.

Clearly, waste is a massive and growing problem that must be solved, and a linear economy is no longer a viable option for societies and enterprises. The EU's 7th Environment Action Programme sets out the direction with a vision of the year 2050: "In 2050, we live well, within the planet's ecological limits. Our low carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society".

Following Fortum's acquisition and integration of Ekokem Group in 2016, we have become one of the leading companies not only in the energy industry but also in the circular economy sector. We aim to develop our circular economy concepts in order to capture more value from resources as well as to provide municipal and industrial customers with better solutions.

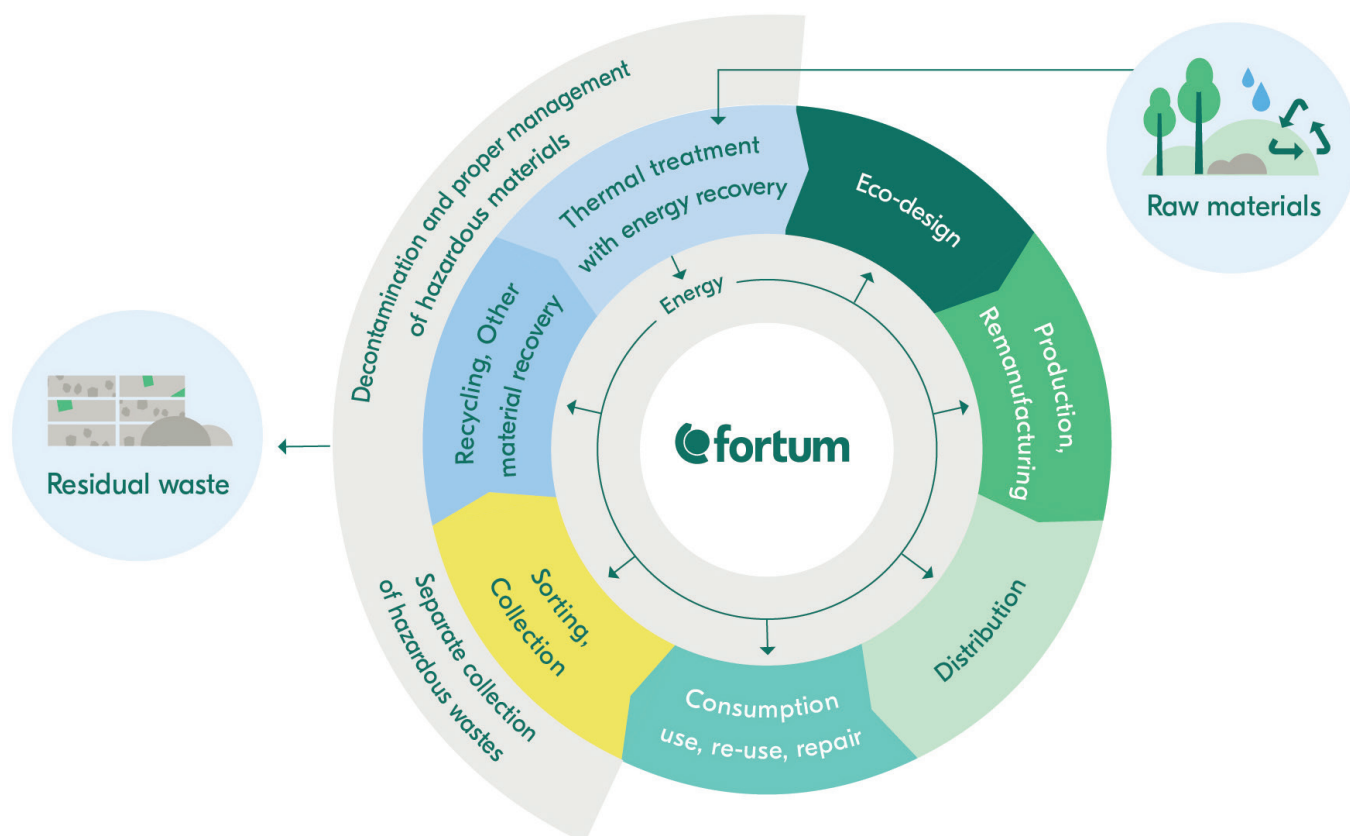
In a sustainable and safe circular economy, material flows containing unwanted hazardous substances would be separated,

decontaminated, and prevented from being reintroduced to the system. This process is called detoxification.

Stronger policy and regulatory steering are needed to improve the competitiveness of high-quality, decontaminated secondary raw materials and recycled products in the markets and to raise consumers' awareness of them.

If we want to lower the adverse climate impact of waste management, restricting landfilling by effective financial incentives or landfill bans is the first step. The thermal treatment of non-recyclable waste with energy recovery is a vital component of a circular economy. Rather than landfilling waste residues that do not fulfil legal, technical, economic, and environmental requirements, they should be recovered as energy – and thus, help reduce the use of virgin fossil and renewable fuels in heat and electricity production. Recovering energy from residual waste treatment does not cause any additional carbon dioxide emissions. Furthermore, thermal treatment enables the utilisation of minerals in fly ash and slag and the recycling of metals from bottom ash.

## Fortum's view on the circular economy



### Fortum's recommendations for policies and legislation

- Ban the landfilling of recyclable and recoverable waste, and minimise the landfilling of all other wastes through legislation and effective financial instruments.
- Ensure proper classification of hazardous waste, aiming to harmonise with EU chemical legislation.
- Ensure health and safety, and protect the environment by removing waste that contains unwanted hazardous substances from circulation.
- Ban the practice of diluting hazardous wastes and lowering its concentrations as a means to circumvent legal requirements.
- Promote high-quality recycling by improving the recyclability of materials and products, and develop effective sorting solutions.
- Recognise thermal treatment with energy recovery as an effective way to safely treat non-recyclable waste and produce carbon-neutral energy.
- Promote the cross-border transport of non-recyclable waste for energy recovery as an environmentally and economically beneficial alternative to landfilling.

Read more: Fortum Energy Review, November 2017  
[www.fortum.com](http://www.fortum.com)