

ECONWARD TECH



BIOMAK[®]

**THERMAL HYDROLYSIS PRETREATMENT
TECHNOLOGY FOR
ORGANIC SOLID WASTE**

ECONWARD TECH

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The most efficient, frontier technology for sustainable Municipal Solid Waste management

We are a global technology company that has developed an innovative solution for treating, recycling and recovering the organic fraction of solid waste and residuals.



High treatment capacity

65.000 t/year per module



Small footprint

270 m² of area required per module



Automated

in-house software development



Scalable and modular

Adaptable, easy integration



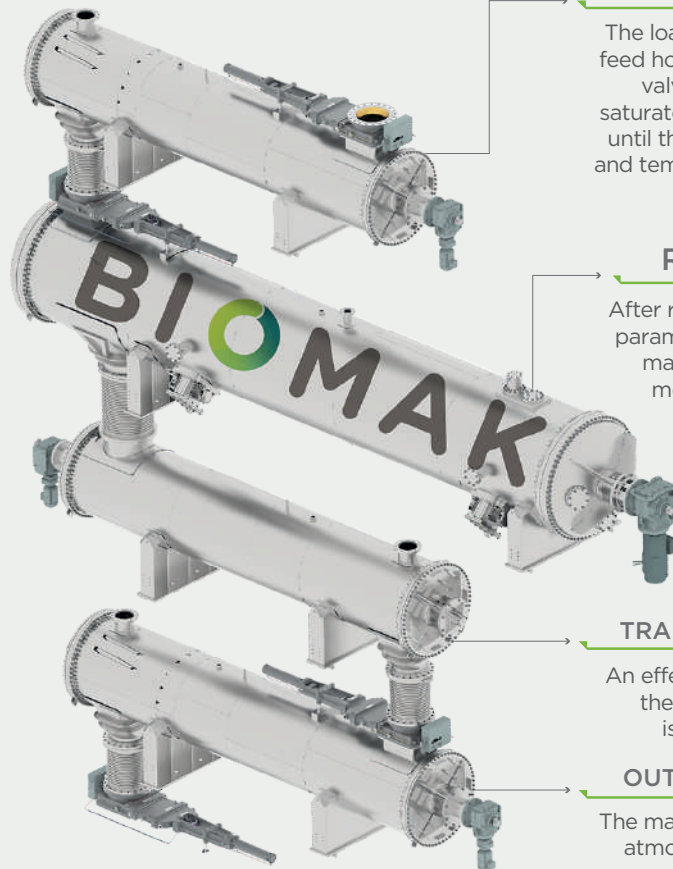
Optimised and compatible

With existing technologies



Internal Consumption

Rapid Return on Investment



INLET CHAMBER

The load enters through a feed hopper, the hydraulic valve is closed and saturated steam is injected until the desired pressure and temperature conditions are reached.

REACTOR

After reaching the preset parameters, the organic matter changes its morphology and properties.

TRANSIT CHAMBER

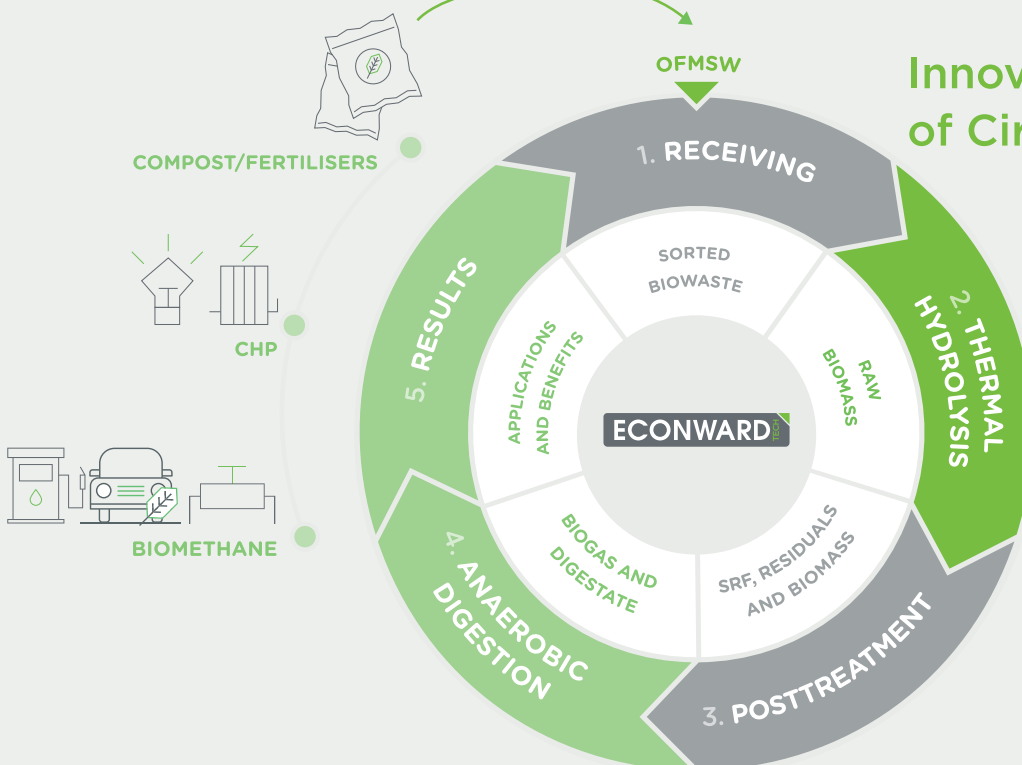
An effective and efficient thermal hydrolysis is guaranteed.

OUTLET CHAMBER

The material is unloaded at atmospheric pressure.

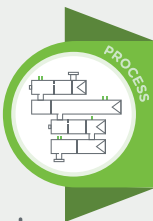
The system is synchronised to reuse the steam from the depressurisation for a new inlet chamber pressurisation process.

Internal Consumption



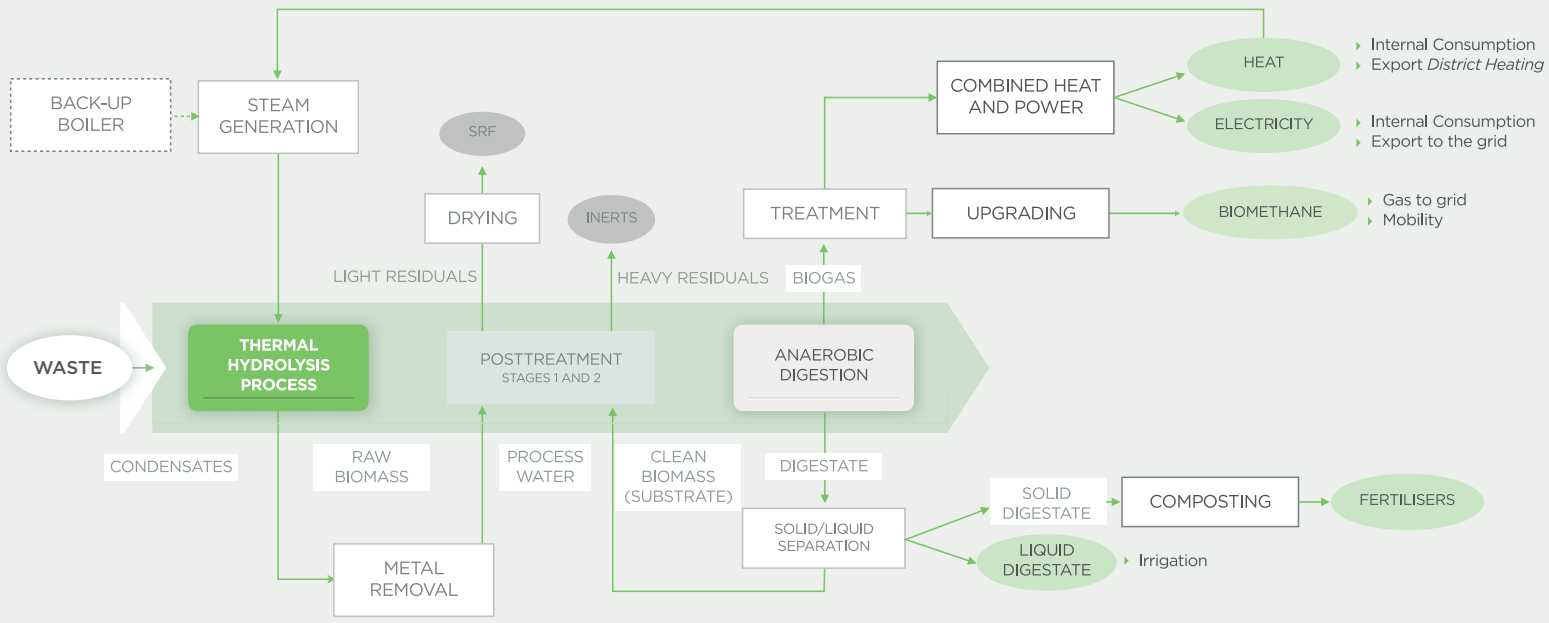
Innovation at the service of Circular Economy

- ▶ **Treating** the OFMSW and Residuals.
- ▶ **Reducing** waste disposal to **landfills**.
- ▶ Producing an **optimised biomass** for high quality valorisation
- ▶ **Minimising GHG** emissions.



We transform organic waste into a biomass with various certified applications

Hygienised, homogeneous, biothermally stabilised, free of pathogens and chemically degraded.



ECONWARD'S TREATMENT

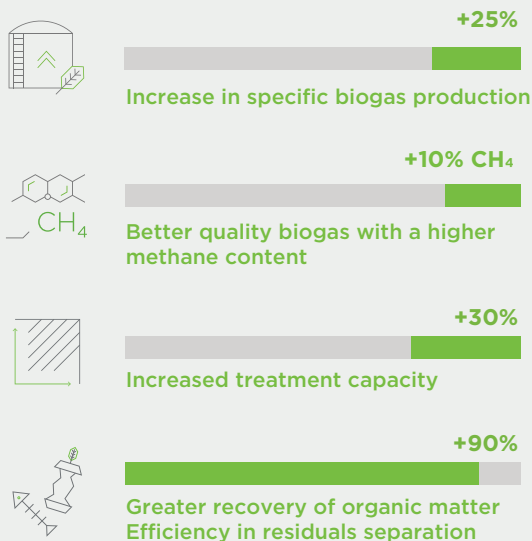
POSTTREATMENTS

BIOMETHANATION PLANT

RESULTS AND APPLICATIONS

<p>98 Nm³ CH₄/tonne of organic waste received in pit</p>	<p>147 Nm³ Biogas/tonne of organic waste received in pit</p>	<p>CH₄: 67%</p>	<p>H₂S: 200-1.500 ppm</p>	<p>HRT: 15 days</p>
<p>Organic Loading Rate 5-7 kg COD/m³ per day</p>	<p>Material Biodegradability 86-91% COD 90-92% VS</p>	<p>Absence of inhibitory or toxic compounds</p>	<p>Certified results from our biomethanation project carried out at our Industrial Plant in Madrid.</p>	

BOOSTING AD PERFORMANCE



High process stability

Accurate estimation in biomethane production



Energy efficiency

Internal consumption or export to grid



Excellent quality digestate

Hygienised and free of pathogens
Class B compost

ECONWARD TECH

We are certified



ISO 9001



ISO 14001



ISO 45001

We invest over **80%** of our resources in **R&D**

Our commitment to the Sustainable Development Goals



We contribute to achieving European and International targets for increasing recycling rates, the importance of renewable energies and the rapid decarbonization of waste treatment sector.



Members of:



R&D Activities:

