

Who is ECONWARD?



We are a global technology company with offices, labs and R&D Department in Madrid and California.

- Over 15 years of expertise developing equipment and processes.
- ▼ Fully backed by a Family Owned Investment Group with a long term commitment to the business and the industry who have invested over €40M in the technology development for the last 4 years.
- We have an industrial plant set up in Madrid which receives and processes various waste streams provided by Municipalities and private companies.

We are certified























































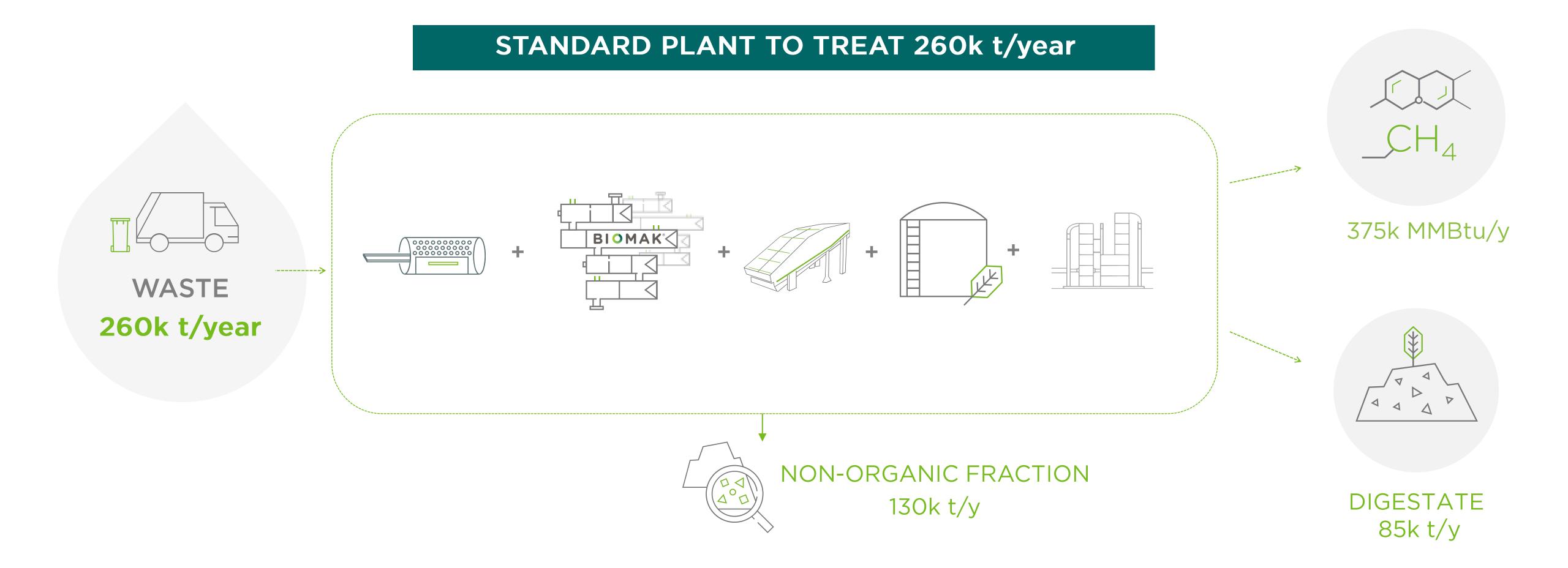






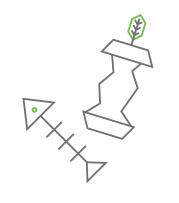


Our technology adds innovative value to landfill projects creating a profitable business model building a sustainable bridge between the waste and energy sectors.

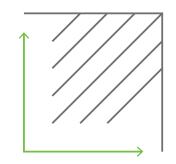




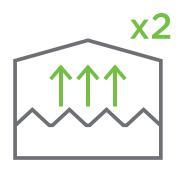
■ By integrating a Biomak[®] in waste treatment plants, we contribute to achieving the objectives of reducing landfill disposal and emissions, increasing recycling rates and renewable energy production. In addition, we optimize the operation performance, providing a profitable business model.



+ 90% of Organic Matter Recovery



+ 30% increased landfill capacity



Increased biomethane revenue



Greater efficiency in organics Separation Excellent quality substrate that

separation Excellent quality substrate that favours the stability of complementary processes.



Excellent quality digestate

Free of pathogens. Class B compost.



Energy efficiency

Enough energy produced for internal consumption or grid injection.



GHG emissions savings

Each Biomak® produces savings of 40,000 t/CO₂eq per year compared to a landfill with gas extraction.



THERMAL HYDROLYSIS

Our patented technology

Autoclave system for solid waste treatment using a thermal hydrolysis process in continuous operation



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

Pressure-temperature stability.

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

TRANSIT CHAMBER

The material keeps flowing. An effective and efficient thermal hydrolysis is guaranteed.

OUTLET CHAMBER

Depressurization.

The material is unloaded at atmospheric pressure.

The system is synchronized to reuse the steam from the depressurization for a new inlet chamber pressurization process.



Our patented technology transforms organic waste into a high-quality BIOMASS

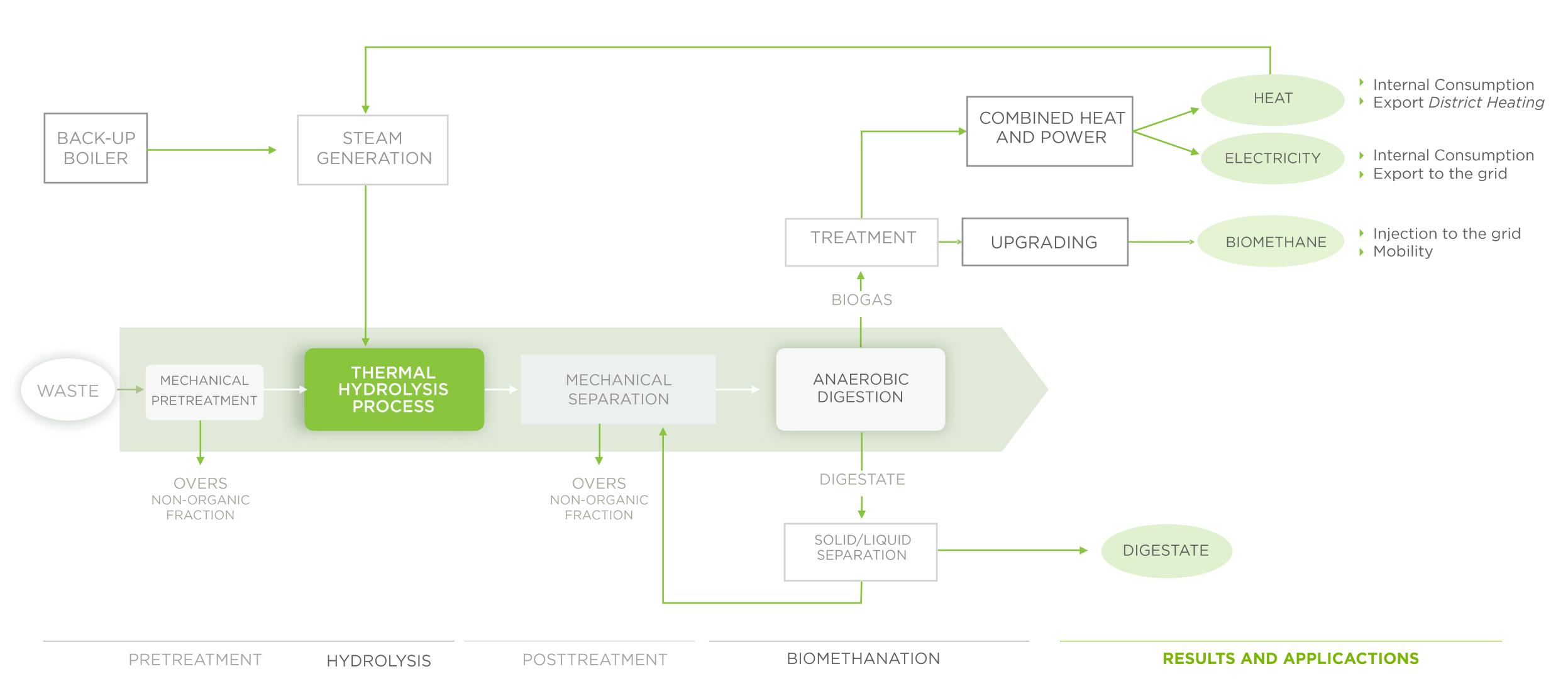


- We help avoid landfill disposal of organics
- We innovate to descarbonize the waste sector
- We produce a high-quality biomass

We provide a homogeneous, degraded and pathogen-free biomass IDEAL FOR ANAEROBIC DIGESTION PROCESSES

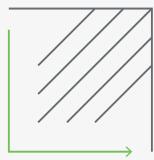


NOWON's plant design



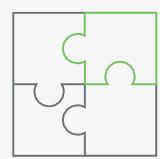


' Key features



High treatment capacity

260,000 t/year



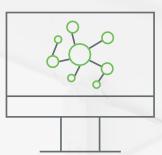
Optimized and compatible

With existing technologies



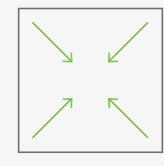
Scalable and modular

Adaptable, easy integration



Fully automated

In-house software development



Small footprint

4 acres of area required



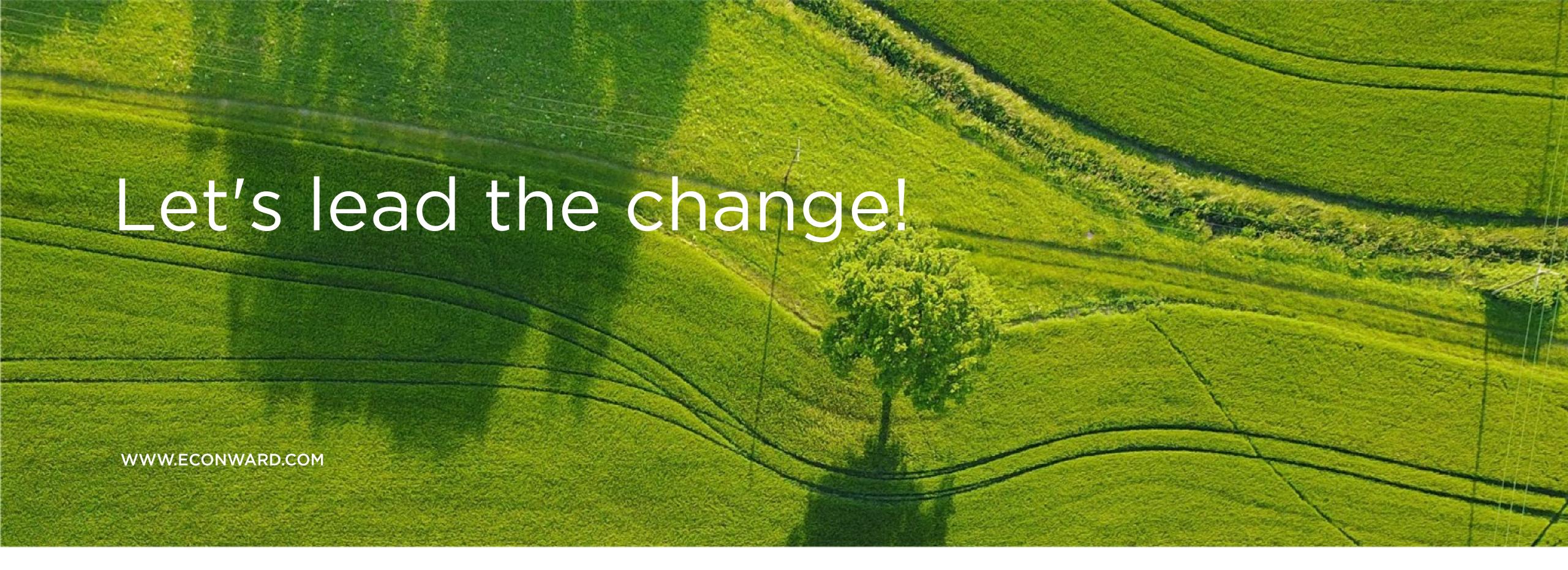
Low operating costs

Rapid Return on Investment

■ Process stability produces an increase in quality and quantity of the biogas obtained.
This is translated into a reduction in operating costs and greater mechanical simplicity of the plant.

BIOGAS PROPERTIES

We produce 98 Nm3 methane per tonne of organic waste received in pit Absence of 5-7 kg COD/m³ 86-91% COD 147 Nm3 67% 200-1500 ppm 15 days inhibitory or toxic per day 87-91% TS Biogas compounds PER TONNE OF **HYDRAULIC** ORGANIC BIODEGRADABILITY MATERIAL CLEANING METHANE HYDROGEN SULPHIDE ORGANIC WASTE RETENTION TIME LOADING RATE RECEIVED IN PIT



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WINNER OF NATIONAL ENERGY AWARD SPAIN, 2022