



THÖNI ENVIRONMENTAL ENGINEERING

# TTV HIGH SOLIDS ANAEROBIC DIGESTION

## SMART BIOGAS TECHNOLOGY

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- Maximum robustness and tolerance to impurities
- Unrivalled shaft-mixer technology with high-performance
- Throughput of up to 60,000 tonnes per year with just one digester
- Process stability with maximum gas yield
- Modular, expandable system concept
- Digester sizes from 1,050 m<sup>3</sup> to 3,850 m<sup>3</sup>



# WASTE TURNS INTO ENERGY

## CLOSING THE LOOP

Biogas from waste has become an integral part of the modern circular economy and the associated climate targets for energy and mobility transition.

This is exactly where we come in: The focus of Thöni plant concepts is on maximising the power and energy potential of organic waste and on returning the products obtained from anaerobic digestion to the ecological cycle.

## THE THÖNI TTV DIGESTER

The centrepiece of the Thöni High Solids AD process is the TTV plug-flow digester. This is particularly suitable for dry organic waste with a high impurity content. Core components such as the walk-on, heated digester floor and the most robust and powerful paddle agitator in the anaerobic digestion industry are patented.

The TTV paddle shaft is particularly characterised by its ability to handle non-homogeneous substrates evenly and consistently. The input substrate is homogenised by the slowly rotating shaft-mixer and thus ensures a high biogas yield. The special design of the paddles prevents sedimentation and transports sediments safely to the digester outlet.

DESIGN AND PLANNING OF COMPLETE SYSTEMS

IN-HOUSE PRODUCTION OF KEY COMPONENTS

REALISATION, INSTALLATION AND COMMISSIONING

## TREATMENT OF DIGESTATE

Digestate with different dry matter contents leaves the digester and can be dewatered using Thöni screw presses. This produces a high-quality liquid fertiliser for agricultural use as well as a compostable solid fraction.

The solid digestate can then be processed into valuable products in Thöni compost modules.

## TECHNOLOGICAL EXPERTISE FOR COMPLETE SOLUTIONS

Thöni's expertise does not begin and end with anaerobic digestion: Thöni high-tech system solutions are the result of over 30 years of experience in design, planning, construction and operation. As a full-service provider, Thöni also supplies turnkey plants, from waste treatment to biogas utilisation. A highly qualified team of experts advises and supports our customers from the very beginning to the successful commissioning of the plants.

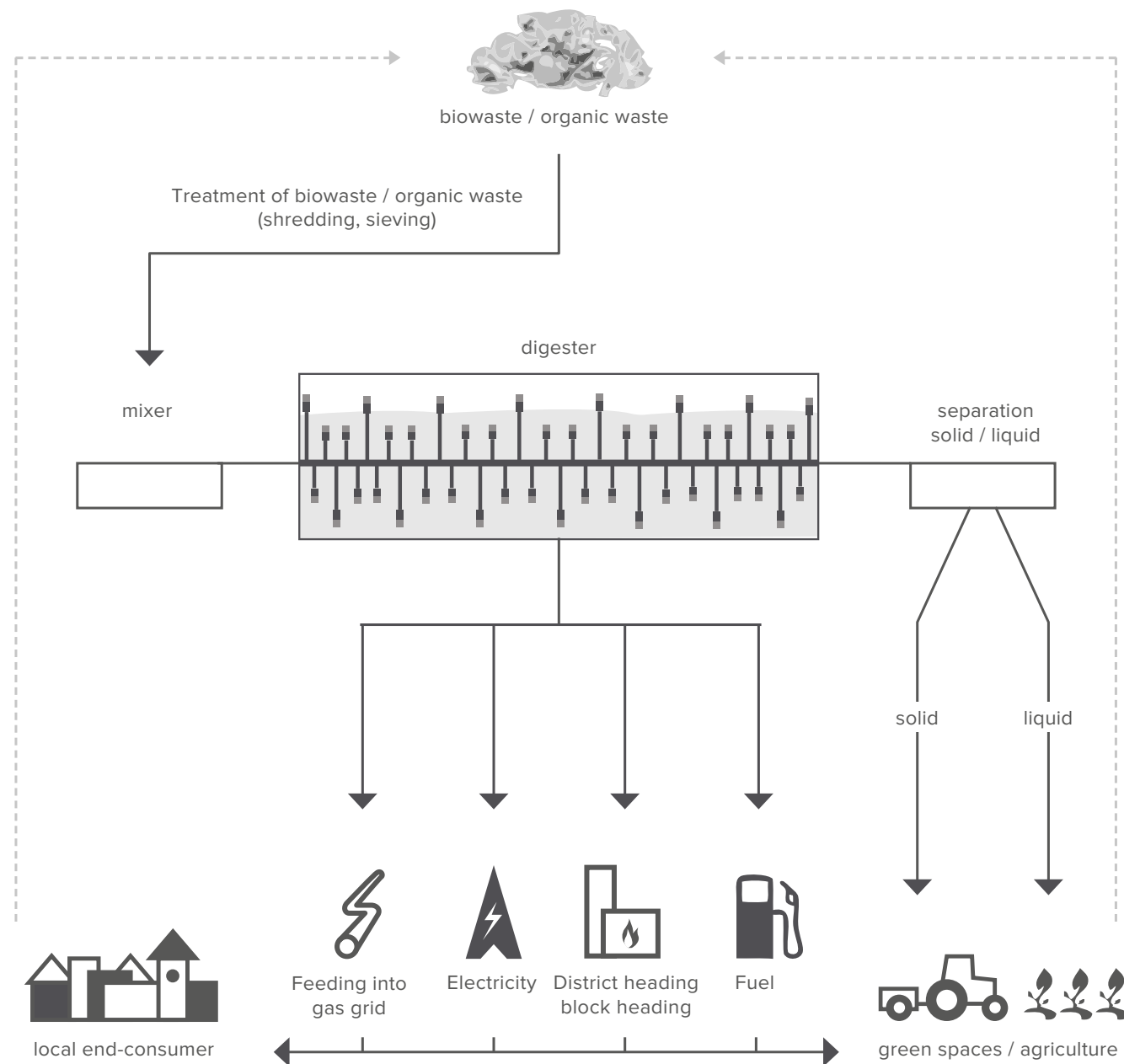
WE ALSO OFFER SOLUTIONS FOR WASTEWATER-FREE OPERATION





## ECOLOGICAL CYCLE

Waste harbours enormous potential. Thöni Environmental Engineering utilises this and feeds clean, green, energy back into society and valuable materials back into the ecological cycle.



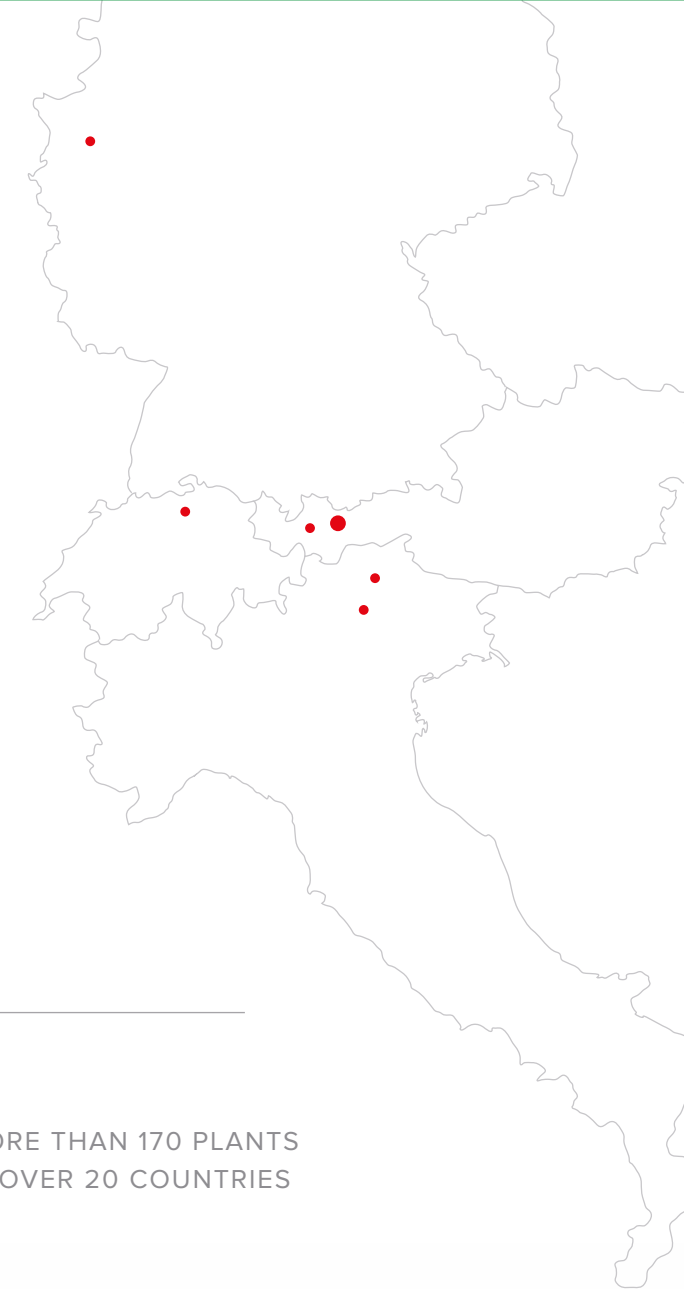
certifications: ISO 9001, ISO 14001

www.thoeni.com

**thöni**

# THÖNI ENVIRONMENTAL ENGINEERING

We have been developing, realising and operating biogas plants for over 30 years. We design innovative system solutions worldwide to utilise organic waste and renewable raw materials as a source of renewable energy. Our team advises and supports you from concept to successful commissioning of the biogas plant.



INDEPENDENT, STRONG FAMILY BUSINESS



MORE THAN 170 PLANTS IN OVER 20 COUNTRIES



PRODUCTION OF KEY COMPONENTS IN-HOUSE



TEAM OF HIGHLY QUALIFIED SPECIALISTS



ALL-ROUND SERVICE FROM CONCEPTION TO COMMISSIONING



THÖNI CARE FOR SUCCESSFUL PLANT OPERATION



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