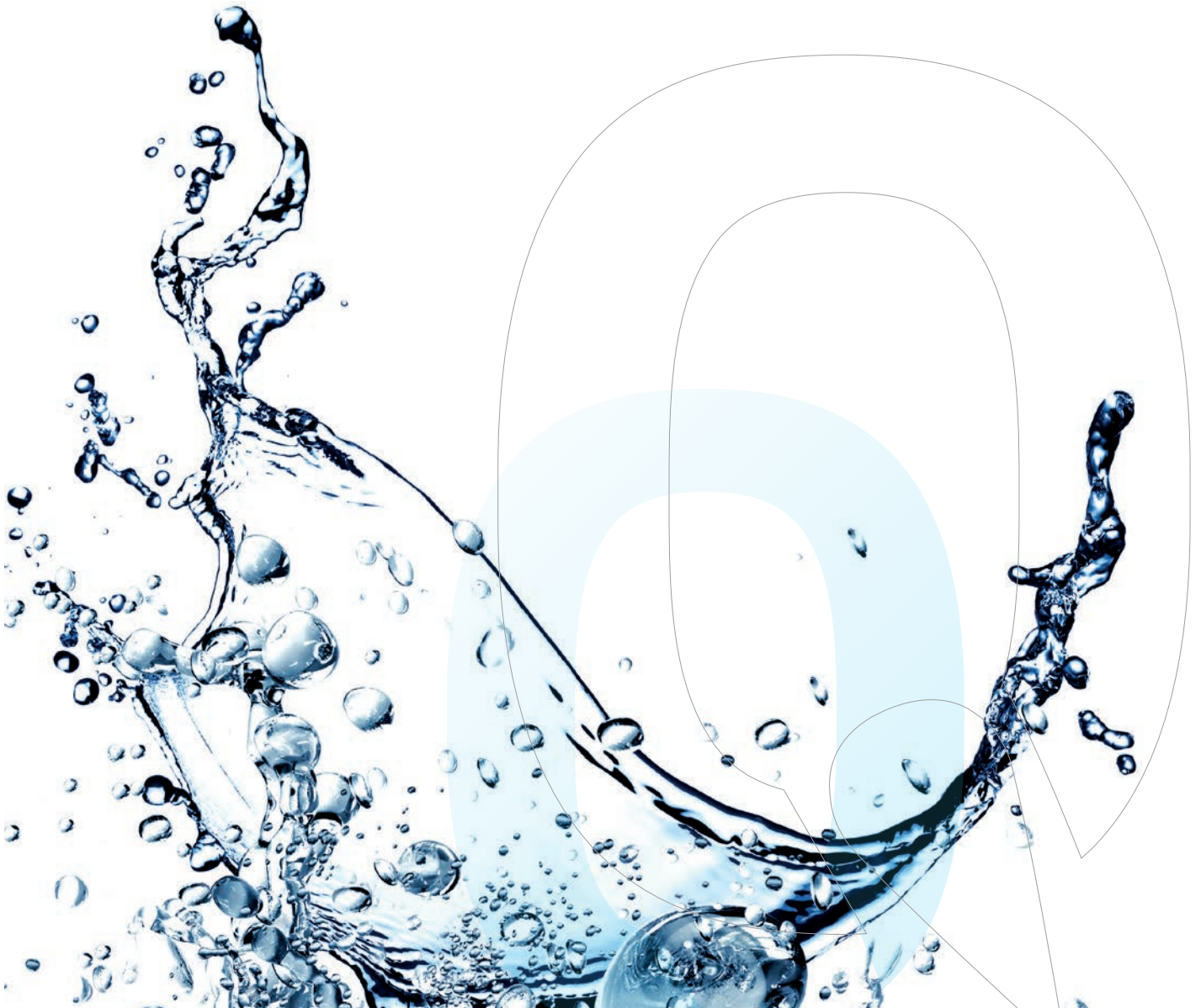




# ELIQUO | HYDROK

EloVac<sup>®</sup>

*Vacuum degassing*



# EloVac<sup>®</sup>

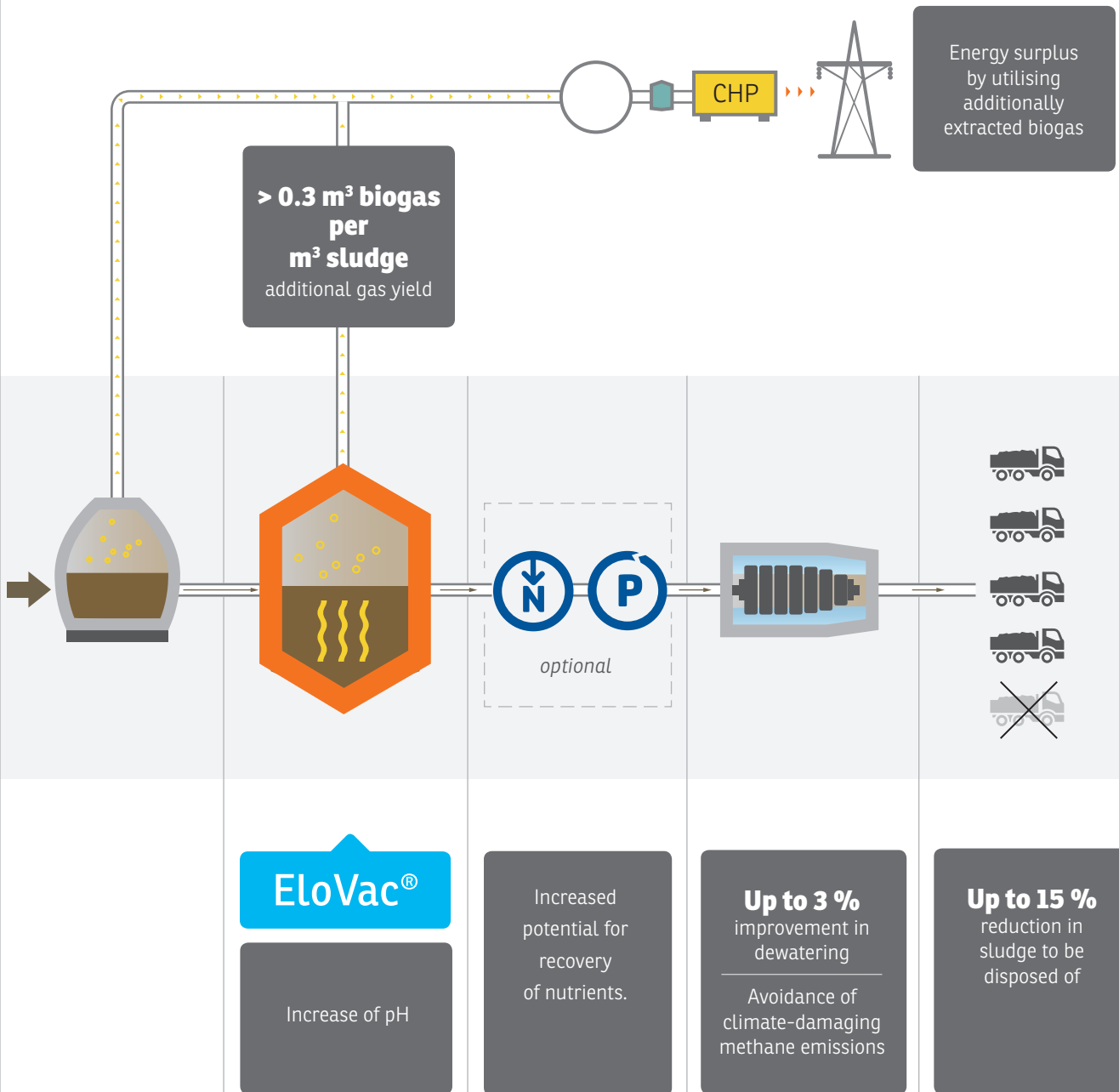
IS A COMPACT SYSTEM FOR THE DEGASSING OF LIQUIDS SUCH AS DIGESTED SLUDGE.

**EloVac<sup>®</sup>** SIGNIFICANTLY IMPROVES THE ECOLOGICAL FOOTPRINT OF YOUR TREATMENT PLANT BY AVOIDING UNCONTROLLED METHANE EMISSIONS. IN ADDITION, IT ENHANCES SLUDGE DEWATERING AND THUS REDUCES SLUDGE DISPOSAL COSTS.

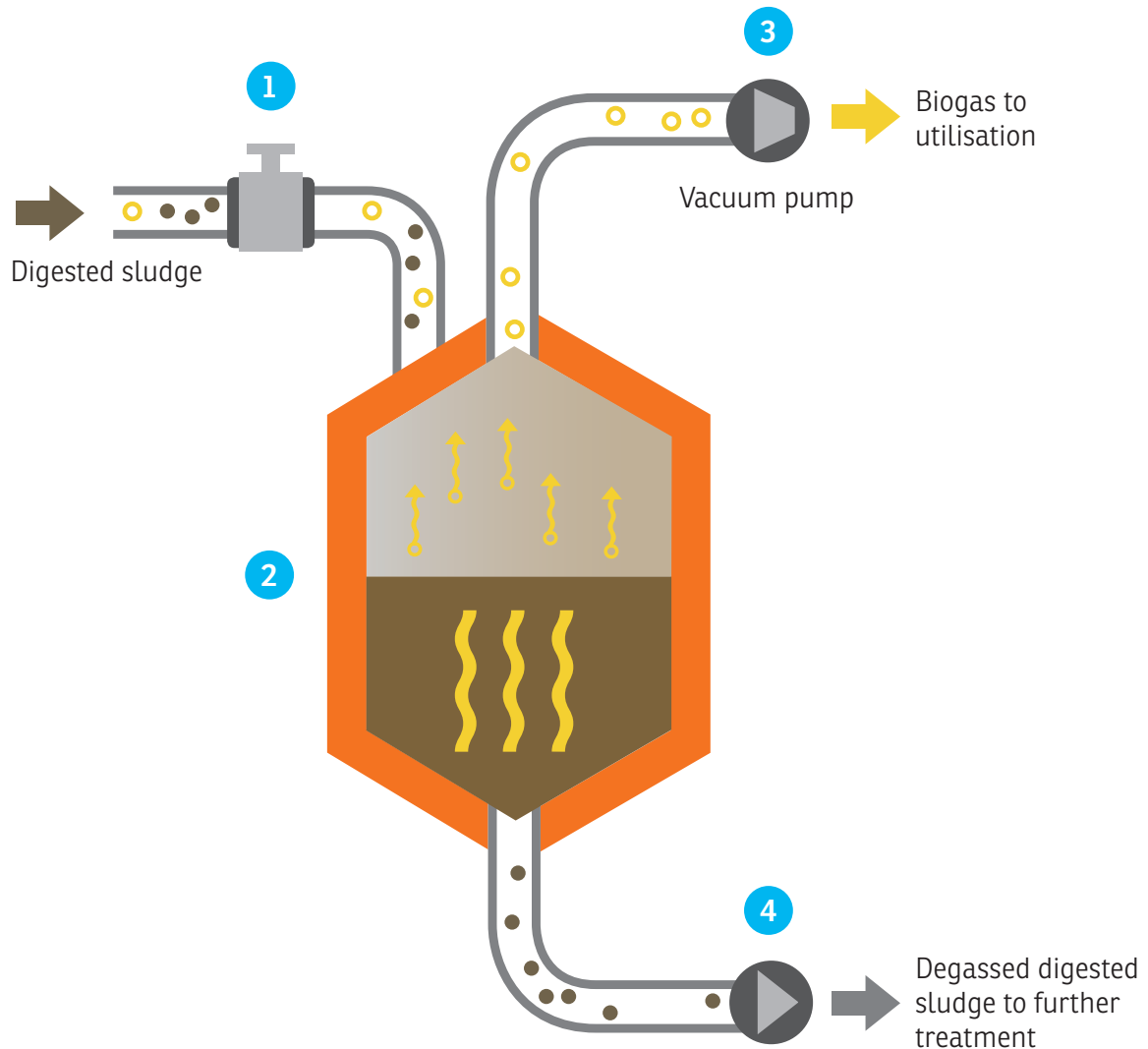
# Objective

EloVac® withdraws methane from the digested sludge and hence reduces climate-damaging methane emissions.

EloVac® is thus a major component of a climate-friendly treatment plant. Additionally, EloVac® improves the sludge dewatering.



# Operating principle



The digested sludge is continuously provided to the degassing tank (2) via a control valve (1) or a pump.

In the degassing tank (2) vacuum is created by a vacuum pump (3). Pressure and filling level in the degassing tank are controlled to predefined values. Due to the vacuum, gas – present in dissolved form and as bubbles – is withdrawn from the digested sludge.

By a sludge pump (4) the degassed digested sludge is continuously discharged from the degassing tank to the downstream sludge treatment step.

The withdrawn gas is provided to a gas system and can be used as a source of energy (e.g. in CHPs). Hence, the operation of the EloVac® system is energy-positive.

# Profitability and climate protection

EloVac® is a very cost-efficient process. As a stand-alone system, that does not require extensive process conversion, EloVac® can provide for significant savings with low investment costs. Additionally, EloVac® can make a major contribution to climate protection.



## SEWAGE TREATMENT PLANT 200,000 PE



– 140,000 €  
Sludge disposal



– 740 kg CO<sub>2</sub> per day  
≈ 5,700 car km per day  
Avoided CO<sub>2</sub>  
equivalent emissions



– 25 %  
Reduction of  
CO<sub>2</sub> footprint of  
the whole treatment plant



Energy-positive  
operation  
of EloVac®

Annual savings are calculated on the basis of the following assumptions: sludge disposal costs: € 85/t dewatered sludge, specific CO<sub>2</sub> equivalent emissions: 13.8 g CO<sub>2</sub>/PE (source: LANUV NRW), CO<sub>2</sub> car emissions: 130 g CO<sub>2</sub>/km (source: Regulation (EC) No. 443/2009).

We are happy to conduct laboratory trials and pilot trials with EloVac® for you.

### TECHNICAL DATA

**Influent DM content** < 6 %

**Hydraulic retention time** < 15 min

**System pressure** < 300 hPa

**Material** Stainless steel (degassing chamber and pipelines)

EloVac® – climate protection and  
reduced sludge disposal costs



EloVac®  
*Lingen (Ems)*

Version 001

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