

COMPANIES CATALOGUE

Members of the European Biogas Association



EBA

European Biogas Association

Leading Companies in Biogas Technology

Manufacturing | Planning | Operators | Consulting | Science & Research | Training

January 2017



This Catalogue is based on the contributions from EBA Members.
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Who is Who?

Companies and their business areas in a nutshell (in alphabetical order)

Name	Active company offices or sales	Planners, manufacturers of biogas plants	Operators	Manufacturers, suppliers of plant components	Substrate	Services, consulting	Science & Research	Other	Page
AB Energy (Gruppo AB)	Italy, Romania, Serbia, Poland, Austria, UK, Germany, France, Czech Republic, Croatia, Spain, Turkey, USA, Canada, Mexico, Brazil	✓		✓		✓			8
Agraferm Technologies AG	Germany	✓	✓			✓		✓	9
APROVIS Energy Systems GmbH	Worldwide			✓					10
Awite Bioenergie GmbH	Germany and partners in 25 more countries worldwide			✓					11
Balmoral Tanks Ltd.	UK	✓		✓	✓				12
Biogest Energie und Wassertechnik GmbH	Austria, Bulgaria, Croatia, Czech Republic, Hungary, Italy, Poland, Ireland, Romania, Serbia, Slovakia, UK, USA, France, Thailand	✓	✓	✓		✓		✓	13
Bioprocess Control AB	Worldwide			✓		✓	✓	✓	14
BOKU, IFA Tulln	Austria					✓	✓	✓	15
BTA International GmbH	Germany, Italy, Canada	✓		✓					16
BTS Biogas	Italy, UK, France, USA, Germany, Czech Republic, Poland, Canada, Japan, Thailand, South Korea	✓	✓	✓		✓		✓	17

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DESOTEC	Europe			✓		✓			18
DMT Environmental Technology	Netherlands, USA, Malaysia, France	✓		✓				✓	19
DONG Energy	Denmark	✓	✓			✓			20
DSM	The Netherlands, Germany, Austria, France, UK, Czech Republic, Slovenia, Italy, USA, Canada, India, China	✓		✓		✓		✓	21
ECN	-						✓		22
ETW Energietechnik GmbH	-			✓					23
Evonik Resource Efficiency GmbH	US, China, Malaysia, Japan, South Korea, Brazil Europe			✓		✓		✓	24
Future Biogas Ltd.	UK	✓	✓						25
Franz Eisele u. Sohne GmbH u. Co. KG	Worldwide			✓					26
Fraunhofer IWES	Germany		✓			✓	✓	✓	27
Gasunie	-	✓		✓		✓			28



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Geotech	UK, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey			✓				✓	29
GM-Green Methane	Italy	✓	✓						30
GRDF (Gaz Réseau Distribution France)	-			✓					31
IES BIOGAS s.r.l	Italy, Czech Republic, Romania, Serbia, Croatia, Poland, Bulgaria, Slovakia, Argentina	✓	✓	✓		✓			32
Institute for Biogas, Waste Management and Energy	Germany					✓	✓	✓	33
Kemira	US, China, Malaysia, Japan, South Korea, Brazil, Europe			✓		✓			34
kIEFER TEK Ltd	Greece	✓	✓	✓		✓			35
Landwärme GmbH	Germany, Austria, Benelux, Switzerland, Denmark, Sweden, Hungary	✓	✓			✓		✓	36
Malmberg Water AB	Sweden, Denmark, Norway, Finland, Germany, UK, Italy, China	✓							37



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NexSteppe Inc.	Austria, The Netherlands				✓	✓		✓	38
Parker Hannifin Corporation, Hiross Zander Filtration Division	Worldwide			✓					39
Pentair Haffmans	Worldwide	✓		✓		✓		✓	40
Renewable Energy Technology International AB (Renewtec AB)	Sweden					✓	✓	✓	41
RISE	Sweden						✓		42
RWL Water Italia S.r.l.	Italy	✓		✓		✓		✓	43
Sattler Ceno TOP-TEX GmbH	Worldwide			✓	✓	✓		✓	44
Schaumann BioEnergy GmbH (Enbycon Holding AG)	Europe, Brazil, Canada, China, Thailand, USA					✓		✓	45
Schmack Biogas GmbH	Worldwide	✓	✓	✓	✓	✓	✓	✓	46
streisal GmbH	Worldwide			✓					47
TNO Energy	Europe, Asia and South America								48
University of Technology Vienna, Institute of Chemical Engineering	-						✓		49
VSL	-					✓	✓	✓	50
Xylem Water Solutions	Worldwide			✓					51



Companies Profiles



Services

Planners/manufacturers of biogas plants

- Project development/planning
- Arranging permitting
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Manufacturers/suppliers of plant components

- Cogeneration units
- Heat utilisation

Services/consulting

- Consulting
- Financing
- Computers and software for plant management

Address: Via Caduti del Lavoro, 13, Orzinuovi BS , Italy

Phone: +39 030 99 42 411

E-Mail: info@gruppoab.it

Website: www.gruppoab.com

Contact person: Caio Pezzola
caio.pezzola@gruppoab.it, +39 030 9942485

Year founded: 1981

Total number of employees: 600

Number of employees biogas department: 25

Total turnover: 230 Mio Eur

Active biogas offices or sales in: Italy, Romania, Serbia, Poland, Austria, UK, Germany, France, Czech Republic, Croatia, Spain, Turkey, USA, Canada, Mexico, Brazil

Key business area: Turnkey CHP solutions for natural gas and biogas applications

References

- Number of built biogas plants: 700
- Total built electrical capacity of biogas plants: 650 MWh
- Total serviced electrical capacity of biogas plants: 600 MWh

Services performed in following countries: Italy, Germany, Bulgaria, Spain, UK

What makes your service unique to the biogas industry ?

In over 30 years of work, we have developed a know-how and a production capacity unique on a world-wide level, which ensure the excellence of the plants, the maximum quality of both the installation and after-sales service.

We create a relationship with our customers and partners based on honesty and trust: we produce, install and manage the plants as if they were ours.

Services

Planners/manufacturers of biogas plants

- Project development/planning
- Arranging permitting
- Construction and commissioning support
- Technology provider
- Full-system suppliers/turnkey plants

Operators of biogas plants

- Biogas plant
- Biomethane plant

Services/consulting

- Feedstock analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Technical service & maintenance
- Nutrient auditing

Others

- Training

Address: Faerberstr. 7, 85276 Pfaffenhofen an der Ilm, Germany

Phone: +49 8441 8086 100

E-Mail: info@agraferm.com

Website: www.agraferm.com

Contact person: Markus Ott
sales@agraferm.com, +49 8441 8086 130

Year founded: 2004

Total number of employees: 90

Number of employees biogas department: 90

Active biogas offices or sales in: Germany

Key business area: EPC contractor, technology provider, technical and biological service – for Anaerobic Digestion, biogas plants and biomethane, and bio-CNG upgrading. Affiliated company BTA International – Waste pre-treatment and digestion of waste.

References

- Number of built biogas plants: 125 of which 17 Gas-to-grid/Biomethane
- Total built capacity of biogas plants: More than 540 Mio Nm³/year 160 MW_{el} equivalent of which biomethane plants at 10,000 Nm³/hour in total
- Services performed in following countries: more than 100 references in roughly 20 countries worldwide

What makes your service unique to the biogas industry ?

- High substrate flexibility as Agraferm plants can be operated with an extremely varied feedstock and a high proportion of dry matter.
- High performance fermentation with high reliability and maximum system availability
- Small footprint with minimum operating costs
- Industrial-quality plant construction
- Technology leader with international focus – although relying on a strong market position in Great Britain, Agraferm is currently focusing on other global markets like Turkey, India and South Korea.

Active biogas offices, service or sales offices in: Germany, UK (4D AD Ltd.), South Korea and India. Sales worldwide.

Services



Manufacturers/suppliers of plant components

- Gas cleaning, gas processing
- Heat utilisation

Address: Ornbauer Str. 10, 91746 Weidenbach, Germany

Phone: +49 982 665 830

E-Mail: info@aprovis.com

Website: www.aprovis.com

Contact person: Michael Kalb

Year founded: 2000

Total number of employees: 100

Number of employees biogas department: 8

Key business area: Gas treatment equipment (e.g. gas dehumidification and activated carbon filtration) including maintenance and service of the equipment and solutions for the whole exhaust gas line (e.g. exhaust gas heat exchanger, silencer, catalytic converter).



References

- Number of built biogas plants: 600 - 1000 units per year
- Number of performed services: 100 - 300 per year
- Services performed in following countries: Germany, Austria, UK, Italy, Czech Republic, Denmark, Sweden



What makes your service unique to the biogas industry ?

Specialised in biogas and cogeneration, APROVIS provides expert knowledge in gas treatment and exhaust gas heat recovery from the planning stages right up until the start-up of the plant. Plants making use of our services benefit from the latest technical expertise; testimonials from well-known clients demonstrate our reliability and high level of customer satisfaction.

Services

Manufacturers/suppliers of plant components

- Gas analysis
- Control and instrumentation systems

Address: Grünseiboldsdorfer Weg 5, D-85416 Langenbach, Germany

Phone: +49 8761 72 162 0

E-Mail: info@awite.com

Website: www.awite.com

Contact person: Dr Ing Martin Grepmeier

Year founded: 2001

Total number of employees: 33

Number of employees biogas department: 33

Active biogas offices or sales in: Germany and partners in 25 countries worldwide

Key business area: Process automation systems, gas analysis systems, microbiological desulfurisation, flow measurement, sensors and electronics for a variety of applications including biogas plants, biogas upgrading, landfill gas, WWTPs, lab and power-to-gas.

References

Number of performed services: over 2,000 gas analysis systems and over 100 automation systems

What makes your service unique to the biogas industry ?

Based on our passion for this industry sector we always look ahead for optimal processes, today and in the future. We deliver high quality, tailor made, solutions for each application.

Services

Planners/manufacturers of biogas plants

- Construction and commissioning support

Manufacturer/supplier of plant components

- Fermenters/containers
- Construction and insulation materials
- Covers, films and foils
- Waste treatment

Substrate

- Storage, silos

Address: Wombwell, Barnsley, Sth Yorkshire, S73 0LR, UK

Phone: +44 1226 340 370

E-Mail: industrialtanks@balmoral.co.uk

Website: www.balmoraltanks.com

Contact person: Jonathan Smith
j.smith@balmoral.co.uk, +44 1226 340 370

Year founded: 1986

Total number of employees: over 150

Number of employees biogas department: over 50

Active biogas offices or sales in: UK

Key business area: Balmoral Tanks is Europe's leading designer and manufacturer of anaerobic digestion and biogas-related tanks. Benefitting from decades of design and installation experience, Balmoral's product range covers all aspects of AD tank specification including bases, roofs, ancillary equipment, insulation and leak detection systems.

References:

- Services performed in following countries: UK, Sweden, Switzerland, Poland, Spain

What makes your service unique to the biogas industry ?

Balmoral's engineering, production and installation teams operate to the highest standards and are accredited to demanding international criteria. The company's commitment to R&D keeps it ahead of the competition; it is this strategy of continuous improvement that has taken Balmoral to the forefront of the AD, water and wastewater sectors.

Services

Planner/manufacturer of biogas plants

- Project development/planning
- Arranging permitting
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Operator of plants

- Biogas plant
- Biomethane plant

Manufacturer/supplier of plant components

- Substrate preparation and processing
- Fermenters / containers
- Feeding, metering and weighing systems
- Stirring and pump systems
- Gas accumulators
- Gas cleaning, gas processing
- Gas analysis
- Control & instrumentation systems
- Gas control systems
- Fans and compressors
- Cogeneration units
- Other energy conversion technologies (e.g. ORC, fuel cells)
- Construction and insulation materials
- Covers, films and foils
- Pipes
- Safety systems, monitoring and warning systems
- Hygiene systems
- Waste treatment
- Washing and cleaning systems
- Fermentation product processing, separation systems
- Connection to gas grid
- Heat utilisation

Services / consulting

- Consulting
- Biological support
- Financing

Others

- Training

Address: Inkustraße 1-7/5/2, A-3400 Klosterneuburg, Austria

Phone: +43 2243 2084000

E-Mail: office@biogest-biogas.com

Website: www.biogest-biogas.com

Contact person: Martin Schlerka
martin.schlerka@biogest-biogas.com, +43 2243 20840

Year founded: 2007

Total number of employees: 50

Number of employees biogas department: 50

Active biogas offices or sales in: Austria, Bulgaria, Croatia, Czech Republic, Hungary, Italy, Poland, Ireland, Romania, Serbia, Slovakia, UK, USA, France, Thailand

Key business area: Biogest is an international biogas plant manufacturer and operator with numerous biogas and biomethane plants EU-wide.

References:

- Number of built biogas plants: 120
- Total built electrical capacity of biogas plants: 163 MWh
- Services performed in following countries: Czech Republic, Slovakia, Austria, Poland, Serbia

What makes your service unique to the biogas industry ?

The biogas plants are installed in the well-established Biogest PowerRing technology. PowerRing has advantages because of its unique space-saving construction and specially designed mixing technique. The low electricity consumption and heating energy demand, the high reliability and availability makes the PowerRing technology a good choice to produce biogas from agricultural products and other biodegradable waste. The product portfolio has also been extended with the addition of the 100 kW PowerCompact biogas plant, especially designed for small and medium-sized dairy farms and offering advantages such as immediate operational readiness and ease of integration into existing infrastructure.

Services

Manufacturer/supplier of plant components

- Substrate preparation and processing
- Control and instrumentation systems

Services and consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Computers and software for plant management

Science and research

- Feedstock optimisation, process optimisation and instrumentation.

Others

- Training



Address: Scheelevägen 22, 223 63 Lund, Sweden

Phone: +46 46 163 950

E-Mail: info@bioprocesscontrol.com

Website: www.bioprocesscontrol.com

Year founded: 2006

Total number of employees: 8

Active biogas offices or sales in: Worldwide

Key business area: The company offers technologies and services that support efficient biogas research, as well as the improved operation of biogas plants and processes.

What makes your service unique to the biogas industry ?

Bioprocess Control's AMPTS has quickly become the preferred analytical instrument around the world for conducting biochemical methane potential (BMP) tests. It is used by both academic and industrial actors in the biogas industry. Bioprocess Control also offers a portfolio of exciting products in the areas of substrate analysis, process simulation, gas flow measurement, as well as a series of bioreactors. This comprehensive and broad product portfolio allows the company to offer technology solutions that can both stabilise and unleash the true potential of a biogas plant.



IFA Tulln, University of Natural Resources and Life Sciences

Services

Services and consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Contract analytics (dry matter and organic dry matter, chemical oxygen demand, volatile fatty acids, trace elements)

Science and research

- Pretreatment, nitrogen and lignocellulose-rich substrates rich substrates, digestate processing, nutrient recovery, H₂ utilisation, viscosity, biorefinery, fermentation, microbiology, utilisation of industrial waste, algae

Others

- Training

Address: Konrad Lorenz Strasse 20, 3430 Tulln, Austria

Phone: +43 227 266 280 536

Website: www.ifa-tulln.ac.at, www.codigestion.com

Contact person: Günther Bochmann
guenther.bochmann@boku.ac.at

Bernhard Drosig
bernhard.drosig@boku.ac.at

Year founded: University 1872, Department of Agrobiotechnology IFA-Tulln 1994

Key business area: Science and research, contract analytics and consulting, University education and further training for members of the biogas industry.

What makes your service unique to the biogas industry ?

The Biogas Research and Consulting Group works on the anaerobic digestion of energy crops, organic waste and wastewater. Our group has built up a lot of know-how by taking part in long-term international projects and working closely with biogas plant operators over the years.

It is the combination of the scientific background and the long-standing, practical knowledge of the biogas process that provides an interesting and unique market position on the biogas sector.

Our laboratory provides contract analytics performed with state-of-the-art laboratory equipment and has close and long-term relationships to biogas plant operators in Austria.

The Biogas Research and Consulting Group is involved in many national and international research projects and is also active in their long-term relation with biogas research groups in Peru and Brazil.



Services

Planners/manufacturers of biogas plants

- Construction and commissioning support
- Project development/planning
- Arranging permitting
- Full-system suppliers/turnkey plants

Manufacturer/supplier of plant components

- Substrate preparation and processing
- Control and instrumentation systems
- Waste treatment
- Size reduction/depacking systems

Address: Färberstraße 7, 85276 Pfaffenhofen an der Ilm, Germany

Phone: +49 8441 8086 666

E-Mail: info@bta-international.de

Website: www.bta-international.de

Contact person: Stephan Schulte, Sales Manager
s.schulte@bta-international.de, +49 8441 808 6611

Year founded: 1984 as BTA GmbH&Co KG; 2006 BTA International GmbH

Total number of employees: 20

Total turnover: 5 - 10 Mio Eur

Turnover of biogas department: 5 - 10 Mio Eur

Active biogas offices or sales in: Licensees: **Biotec Sistemi S.r.l.**, Passo a Via di Francia 3, 16149 GENOVA, Italy;

CCI BioEnergy Inc., 97 King Avenue East Unit 101, Newcastle, Ontario, Canada L1B 1H3

Key business area: Technology provider for the pre-treatment and anaerobic digestion of organic residues (food waste, source-separated organics, commercial waste and organic fraction MSW). Affiliated company Agraferm Technologies AG: anaerobic digestion and biomethane plants for agricultural or industrial residues.

References

- Number of built biogas plants: 50
- Total built electrical capacity of biogas plants: More than 1,2 Mio tonnes of waste per year, approx. 120 Mio Nm³ biogas per year
- Services performed in following countries: Europe 80%, North America 10%, East Asia 8%, Australia 2%

What makes your service unique to the biogas industry ?

BTA International GmbH is the leading specialist for the hydromechanical pre-treatment of different kinds of waste and the subsequent anaerobic digestion of the cleaned organic fraction, as per the BTA® Process for the production of biogas. The efficient removal of impurities prior to digestion is the key for the successful digestion of biowaste, food waste, commercial waste and the organic fraction from municipal solid waste. The BTA® Process is characterised by its substrate flexibility and its high efficiency in the removal of impurities prior to anaerobic digestion. This leads to high operational reliability, minimises the disposal costs of the rejects, maximises the biogas yield and ensures the highest quality of the digestate and thus the final compost material.

Services

Planner/ manufacturer of biogas plants

- Project development/planning
- Construction and commissioning support
- Arranging permitting
- Full-system suppliers/turnkey plants

Operator of biogas plants

- Biogas plants
- Biomethane plants

Manufacturer/supplier of plant components

- Substrate preparation and processing
- Fermenters/containers
- Feeding, metering and weighing systems
- Stirring and pump systems
- Gas accumulators
- Gas cleaning, gas processing
- Gas analysis
- Control & instrumentation systems
- Gas control systems
- Fans and compressors
- Cogeneration units
- Construction and insulation materials
- Pipes
- Heating pipes
- Safety systems, monitoring and warning systems
- Waste treatment
- Hygiene systems
- Washing and cleaning systems
- Size reduction/depacking systems
- Process aids (e.g. enzymes)
- Fermentation product processing, separation systems
- Heat utilisation
- Connection to gas grid

Services / consulting

- Consulting
- Biomass logistics
- Biomass logistics software
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing
- Safety assessors
- Regional planning

Science & Research

- Own research department

Others

- Training

Address: Via San Lorenzo, 34 St. Lorenznerstr. I-39031 Brunico/Bruneck (BZ), Italy

Phone: +39 0474 370 119

E-Mail: info@bts-biogas.com

Website: www.bts-biogas.com

Year founded: 2008

Total number of employees: >100

Number of employees biogas department: >100

Active biogas offices or sales in: Italy, UK, France, USA, Germany, Czech Republic, Poland, Canada, Japan, Thailand, South Korea

Key business area: BTS Biogas deals with the design, installation, construction and service of biogas plants. We offer unique technologies like the BIOaccelerator, fibreCRACK and the software dinaMETAN, which increase and optimise the productivity and profitability of our power plants. We also offer biological assistance and consulting and have our own laboratory in Italy.

References:

- Number of built biogas plants: 190
- Number of performed services: 100
- Total built electrical capacity of biogas plants: >160 MWh
- Total serviced electrical capacity of biogas plants: 90 MWh
- Services performed in following countries: Germany, Italy, UK, France

What makes your service unique to the biogas industry ?

Thanks to more than twenty years' experience, we have developed a completely integrated system for producing biogas and biomethane from organic waste, leftovers and organic by-products.

Central to the service we offer:

- Maximum plant cost-effectiveness thanks to pretreatment
- Biological Optimisation with our own dinaMETAN software
- 24/7 Mechanical and Biological Assistance
- Valorisation of leftover material through proper and sustainable post-treatments

Services

Manufacturer/ supplier of plant components

- Gas cleaning, gas processing

Services / consulting

- Consulting

Address: Regenbeekstraat 44, 8800 Roeselare, Belgium

Phone: +32 51 246 057

E-Mail: info@desotec.com

Website: www.desotec.com

Contact person: Filip Van Dorpe
filip.vandorpe@desotec.com, +32478324069

Year founded: 1990

Total number of employees: 110

Number of employees in biogas department: 19

Total turnover: 50 Mio Eur

Active biogas offices or sales in: Europe

Key business area: Biogas, air emission, remediation and waste water

References

- Number of performed services: Several hundred mobile activated carbon filters in Europe – biogas and biomethane
- Services performed in the following countries: Germany, Austria, UK, The Netherlands, Italy, Switzerland, France, Spain, Scandinavia, Poland, Belgium

What makes your service unique to the biogas industry ?

DESOTEC offers a customised package of mobile activated carbon filters. Furthermore, DESOTEC has developed a collection of top-of-the-range adsorption products that maximise performance and hence keep costs to a minimum. In addition to this, DESOTEC engineers with their wide-ranging experience are ideally placed to help you develop your process so as to achieve the best possible results.

Services

Planners/manufacturers of biogas plants

- Project development/planning
- Construction and commissioning support

Manufacturer/ supplier of plant components

- Gas cleaning, gas processing

Others

- Training

Address: Yndustrywei 3, 8501 SN Joure, The Netherlands

Phone: +31 513 63 67 89

E-Mail: info@dmte.nl

Website: www.dmt-et.com

Contact person: Harmen Dekker
hdekker@dmte.nl, +31 513 63 67 89

Year founded: 1987

Total number of employees: 50

Number of employees in biogas department: 50

Total turnover: 15 Mio Eur

Active biogas offices or sales in: USA, France, The Netherlands, Malaysia

Key business area: DMT is market leader in biogas upgrading with membrane technology, and we deliver innovative technologies for desulphurisation, water treatment and resource recovery.

References

- Number of built biogas plants: over 20
- Services performed in the following countries: Germany 5%, UK 55%, The Netherlands 10%, Switzerland 15%, rest of Europe 15%

What makes your service unique to the biogas industry ?

DMT Environmental Technology is the specialist in adding value to your waste with sustainable and profitable solutions. With our unique and distinctive knowledge and experience built up over more than 25 years, we deliver robust and high quality products. Moreover, DMT has the expertise to make our projects successful and above all to deliver on time.

Our mission is to create a 'clear and prosperous future'. Using these technologies, we help companies to contribute to the environment in a sustainable and profitable way. DMT Environmental Technology offers two technologies in the field of biogas upgrading. DMT has years of experience in this field and is a leading provider of biogas upgrading systems. The first technology is a system based on high pressure water scrubbing – our Carborex® PWS. The second one is a technology based on membrane separation – the Carborex® MS. This system is easy to operate, and is the most economical and flexible system on the market today.

Services



Planners/manufacturers of biogas plants

- Full-system suppliers/turnkey plants

Operators of biogas plants

- Biogas plant

Services / consulting

- Consulting

Address: Kraftværksvej 53, 7000 Fredericia, Denmark

Phone: +45 995 511 11

E-Mail: info@dongenergy.com

Website: www.dongenergy.com

Contact person: Niels Henriksen
niehe@dongenergy.dk, +45 9955 2087

Year founded: 2006

Total number of employees: 6,500

Total turnover: DKK 71 Billion (2015)

Active biogas offices or sales in: Denmark

Key business area: DONG Energy is one of the leading energy groups in Northern Europe. Around 6,500 ambitious employees are engaged in the energy value chain for our assets in offshore wind power, power stations, and oil and gas. We are expanding into biogas generation e.g. through the REnescience technology that handles mixed residual waste.

Services

Planner/ manufacturer of biogas plants

- Project development/planning

Manufacturer/ supplier of plant components

- Substrate preparation and processing
- Waste treatment
- Process aids (e.g. enzymes)
- Fermentation product processing, separation systems

Services / consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing

Others

- Training

Address: PO box 1, 2600 MA, Delft, Netherlands

Phone: +31 152 792 613

E-Mail: Info.biogas@dsm.com

Website: www.dsmbiogas.com

Contact person: Christian Löchte
christian.loechte@dsm.com, +49 172 2440 214

Year founded: 1902

Total number of employees: 22,000

Number of employees in biogas department: 4

Total turnover: 9 Billion Eur

Active biogas offices or sales in: The Netherlands, Germany, Austria, France, UK, Czech Republic, Slovenia, Italy, USA, Canada, India, China

Key business area: DSM is a Life Science and Material Science company. In the biogas market specifically, DSM offers enzymes to support biomass hydrolysis and utilisation as well as a design of a complete new biogas production process based on control and management of feed into a novel reactor containing the microbes.

References

- Number of performed services: over 250 in operation and over 1000 in contact
- Services performed in the following countries: Germany, Austria, UK, The Netherlands, Italy, Czech Republic
- Reference cases can be found on the website

What makes your service unique to the biogas industry ?

With more than 125 years of experience in Fermentation technology, DSM biogas team knows how to optimally use the "reactor" to create maximum output. This goes hand in hand with the knowledge on feeding the microbes the substrate they need to optimally perform. With the inhouse knoweldge of DSM in fermentation management, DSM is also actively working on major innovations in the biomass utilisation towards renewable fuel or biobased chemistry.

Services



Science & Research

- Thermochemical conversion of biomass
- TDD
- Consultancy
- Policy support
- Technology transfer

Address: Westerduinweg 3,1755LE, The Netherlands

Phone: +31 88 515 4949

Contact person: r.groen@ecn.nl

Year founded: 1955

Total number of employees: ~500

Number of employees in biogas department: ~70

Key business area: ECN develops sustainable energy technology in the solar, wind and biomass sectors. Biomass activities relate to thermochemical conversion of biomass and the production of power, heat, chemicals, methane and transportation fuels. We provide services as contract R&D, technical due diligence and policy support.

Services

Manufacturers/suppliers of plant components

- Gas cleaning, gas processing
- Cogeneration units

Address: Ferdinand Zeppelin Strasse 19, 47445 Moers, Germany

Phone: +49 2841 99900

E-Mail: info@etw-energie.de

Website: www.etw-energie.de

Contact person: Marco Weiss
m.weiss@etw.energie.de

Year founded: 1997

Total number of employees: 80

Number of employees in biogas department: 18

Total turnover: 34 Mio Eur

Key business area: The company's core business comprises the construction and maintenance of combined heat and power (CHP) plants fueled by NG (Natural gas) and biogas alike. In addition, ETW develops its own high-end PSA (Pressure-Swing-Adsorption) technology for biogas upgrading, backed up by a team with decades of experience in industrial PSA applications.

References

- Number of biogas plants built: over 300
- Number of performed services: over 250
- Total built electrical capacity of biogas plants: over 240 MWh
- Total serviced electrical capacity of biogas plants: over 200 MWh
- Geographical split of performed services: Germany 50%, Europe (excluding Germany) 30%, abroad (mostly Asia) 20%

What makes your service unique to the biogas industry ?

Owner-management and commitment based on trust enables ETW to pursue long-term and loyal relationships with its customers. ETW provides bespoke, up-to-date technological concepts built with high quality components. Decades of engineering experience, a skilled service team and fair conditions all help maintain a high level of customer satisfaction.

Services

Manufacturers/suppliers of plant components

- Gas cleaning, gas processing
- Washing and cleaning systems

Services / consulting

- Consulting

Others

- Training

Address: Kirschenallee, 64293 Darmstadt, Germany

Phone: +49 6151 18 4513

E-Mail: info@sepuran.com

Website: www.sepuran.com

Contact person: Volker Wehber
volker.wehber@evonik.com, +49 170 91 29 867

Total number of employees: 33,500

Number of employees in biogas department: 40

Active biogas offices or sales in: US, China, Malaysia, Japan, South Korea, Brazil, Europe

Key business area: Biogas upgrading technology, gas separation membranes, SEPURAN® Green, SEPURAN® N2, SEPURAN® Noble.

References

- Number of biogas plants built : 85

What makes your service unique to the biogas industry ?

Evonik provides unique, highly selective biogas upgrading membranes under the brand name SEPURAN® Green. This state of the art technology allows the operation of a biogas upgrading plant with the highest possible efficiency. The flexible, modular setup is ideal for small, medium and large scale installations.

Services

Planners/manufacturers of biogas plants

- Project development/planning

Operators of biogas plants

- Biogas plants
- Biomethane plants



Address: 10-12 Frederick Sanger Road, Guildford, Surrey, GU2 7YD, UK

Phone: +44 1483 375920

E-Mail: info@futurebiogas.com

Website: www.futurebiogas.com

Year founded: 2010

Total number of employees: 74

Number of employees in biogas department: 45

Key business area: Developer and operator of anaerobic digestion plants across the UK.



References

- Number of biogas plants built: 10
- Total built electrical capacity of biogas plants: 25 MWh
- Total serviced electrical capacity of biogas plants: 25 MWh



What makes your service unique to the biogas industry ?

Specialist knowledge of the UK anaerobic digestion market with extensive experience in the development and operation of both biogas and biomethane plants.



Franz Eisele u. Söhne GmbH u. Co. KG

Services



Operators of biogas plants

- Biogas plant

Manufacturer/ supplier of plant components

- Stirring and pump systems

Substrate

- Storage, silos

Services / consulting

- Consulting
- Regional planning

Address: Hauptstrasse 2 - 4, D-72488 Sigmaringen, Germany

Phone: +49 7571 1090

E-Mail: info@eisele.de

Website: www.eisele.de

Contact person: Rainer Eisler
rainer.eisler@eisele.de, +49 7571 1090

Year founded: 1887

Total number of employees: 80

Number of employees in biogas department: 5

Active biogas offices or sales in: Canada, France, Italy, Slovenia, Hungary, Slovakia, Czech Republic, Netherlands, Germany, Austria, India, Japan

Key business area: Family-owned company specialising in the manufacture of pumps and mixers for biogas plants and modern slurry management.



Services

Operator of biogas plants

- Biogas plant

Services / consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Financing (Consulting)
- Computers and software for plant management

Science & Research

- Investigation of the whole process chain for electricity, heat, and energy source production from biomass
- Biomass usage for new energy conversion technologies
- Biogas based systems for decentralised use
- Optimisation of the interaction between bioenergy systems and other renewable energy forms
- Opportunities and development of new integration and commercialisation opportunities for bioenergy systems
- Monitoring and integration of biogas upgrading technology
- Development of biogas fed "micro gas networks"

Others

- Training
- Process Simulation
- Political Consulting
- Feasibility studies, due diligence and profitability analyses
- Surveys of new technologies
- Technology and system monitoring, evaluation and optimisation

Address: Königstor 59, 34119 Kassel, Germany

Phone: +49 561 7294 0

E-Mail: hbfz@iwes.fraunhofer.de

Website: www.iwes.fraunhofer.de

Contact person: Maren Brüscke

Year founded: 2009, before known as ISET– Institute for Solar Energy Technology in Kassel/Hanau

Total number of employees: 500

Number of employees in biogas department: 25

Turnover: 31 Mio Eur

Key business area: Contract research, contract measurements, studies and consulting, technology assessments, pilot plants and demonstration plants

What makes your service unique to the biogas industry ?

The HBFZ (Hessian Biogas Research Center) investigates all aspects of energy production from biomass. Research activities begin with crop cultivation, continue with the adequate supply of the substrate, through to the production of biogas within the biogas installation as such, and also include the fermentation residues and the planting ground.

Furthermore, the HBFZ offers optimum conditions for testing energy management and control systems. Multiple PV-systems, a biogas plant with CHP, as well as a very flexible micro-gas-turbine and a wood chip-fired-plant are producing electrical or thermal energy. Moreover the facilities of the HBFZ include barns and stables, tool-room workshops, kitchens, boarding school and other facilities with a similar load profile found in a small village. The facilities are successively connected to a heating pipeline.

Services

Planner/manufacture of biogas plants

- Project development/planning
- Arranging permitting

Manufacturers/suppliers of plant components

- Gas cleaning, gas processing
- Gas analysis
- Other energy conversion technologies (e.g. ORC, fuel cells)
- Pipes
- Safety systems, monitoring and warning systems
- Connection to the gas grid

Services/consulting

- Biomass logistics

Address: Concourslaan 17, 9727 KC Groningen, The Netherlands

Phone: +31 50 521 91 11

E-Mail: communicatie@gasunie.nl

Website: www.gasunie.nl

Contact person: Gerard van Pijkeren
g.van.pijkeren@gasunie.nl

Year founded: 1963

Total number of employees: 1,700

Number of employees in biogas department: 10

Total turnover: 1,630 Mio Eur

Key business area: Under the label New Energy, Gasunie is examining the feasibility of sustainable technologies for larger-scale use. Gasunie cooperates with its partners to create new business models that are needed to bring the concept to maturity. In this process Gasunie adopts an independent, unifying, commercial position with emphasis on the infrastructure required.

References

- Number of biogas plants built: 0 (in 2017:1)
- Total built electrical capacity of biogas plants: (in 2017: 1MWh)
- Services performed in the following countries: Germany 1%, The Netherlands 99%

Services



Manufacturers/suppliers of plant components

- Gas analysis
- Control & instrumentation systems
- Gas control systems

Others

- Training

Address: Sovereign House, Queensway, Leamington Spa, Warwickshire CV31 3JR, United Kingdom

Phone: +44 01926 338 111

E-Mail: sales@geotech.co.uk

Website: www.geotechuk.com

Contact person: Rachel Woodbridge
r.woodbridge-stocks@geotech.co.uk, +44 01926 338 111

Year founded: 1972

Total number of employees: 51

Number of employees in biogas department: 19

Total turnover: £6.9 Mio

Active biogas offices or sales in: Head office in England; 27 distributors in 26 countries: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey.

Key business area: Geotech is a UK-based manufacturer supplying a range of gas analysis and environmental monitoring equipment across the globe. Our established portfolio includes a range of ATEX certified portable landfill gas and biogas analysers, renowned for reliability and robust gas analysis technology. Our fixed gas analyser monitors pre and post desulphurisation on anaerobic digestion plants.



What makes your service unique to the biogas industry ?

Geotech provides global support with a network of 60 distributors and helpful 'how-to' videos that are available in different languages for our global audiences. We offer product training for customers on site, at their office or via our webinars. We provide service support at our UK office and through our service distributors. Geotech's approach to compliance and safety means that our current portable landfill and biogas analysers conform to ISO, UKAS, CSA, UL, IECX and MCERTS.

Services

Planner/manufacturer of biogas plants

- Full-system suppliers/turnkey plants

Operators of biogas plants

- Biomethane plant

Address: Via Miranese 72, 30034 Mira, Venezia, Italy

Phone: +39 041 5674260

E-Mail: info@gm-greenmethane.it

Website: www.gm-greenmethane.it

Contact person: Maurizio Pastori
maurizio.pastori@gm-greenmethane.it, +39 335 5972342

Year founded: 2013

Active biogas offices or sales in: Italy

Key business area: Supplier of turnkey plants for biogas upgrading to biomethane based on chemical absorption by Potassium Carbonate water solution (Giammarco-Vetrocoke CO₂ removal technology).

References

- Number of built biogas plants: N°1 Biogas upgrading plant; Giammarco-Vetrocoke licensed more than 350 plants for CO₂ removal

What makes your service unique to the biogas industry ?

GM-Green Methane Biogas upgrading plants feature the unique, simple and worldwide-referenced Giammarco-Vetrocoke CO₂ removal technology based on absorption by K₂CO₃ water solution. This makes the GM-Green Methane plants environmentally friendly, reliable, robust, compact, and easy to operate, achieving the best efficiency for CO₂ removal, biomethane recovery (more than 99,9%) and energy consumption.

Services

Manufacturers/suppliers of plant components

- Gas analysis
- Gas control systems
- Connection to gas grid

Address: 6 Rue Condorcet, 75009, Paris, France

Phone: +33 1 85 34 23 11

Website: www.grdf.fr

Contact person: Christophe Bellet
christophe.bellet@grdf.fr

Year founded: 2007

Total number of employees: 11,431

Number of employees in biogas department: 4

Total turnover: 3 Billion Eur

Key business area: Gas distribution system operator

References

- Services performed in following countries: France

What makes your service unique to the biogas industry ?

As a gas distribution system operator, GRDF operates the injection unit and ensures gas quality is regularly checked so that the biomethane that is injected into the network has the same physical properties as natural gas. GRDF also helps in the development of biomethane injection projects from the initial feasibility studies, throughout the construction project and by checking gas quality before injection. Once a production site is deemed ready to start injecting, GRDF is responsible for the metering, checking the gas quality as well as odourising the gas that GRDF then injects into the gas network.

Services

Planner/manufacture of biogas plants

- Project development/planning
- Full-system suppliers/turnkey plants
- Arranging permitting
- Construction and commissioning support

Operators of biogas plants

- Biogas plant
- Biomethane plant

Manufacturers/suppliers of plant components

- Fermenters/containers
- Substrate preparation and processing
- Feeding, metering and weighing systems
- Stirring and pump systems
- Gas accumulators
- Gas cleaning, gas processing
- Gas analysis
- Control & instrumentation systems
- Gas control systems
- Fans and compressors
- Cogeneration units
- Other energy conversion technologies (e.g. ORC, fuel cells)
- Construction and insulation materials
- Covers, films and foils
- Construction chemicals
- Pipes
- Heating pipes
- Safety systems, monitoring and warning systems
- Hygiene systems
- Waste treatment
- Washing and cleaning systems
- Size reduction/depacking systems
- Working materials (oils, lubricants, etc.)
- Process aids (e.g. enzymes)
- Fermentation product processing, separation systems
- Transformers, connection to electricity grid
- Connection to gas grid
- Heat utilisation
- Natural gas vehicles

Services / consulting

- Consulting
- Biomass logistics
- Biomass logistics software
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing
- Emissions protection assessors
- Safety assessors
- Approved monitoring centres, authorised persons
- Regional planning
- Legal advice/legal support
- Financing
- Insurance
- Quality assurance for fermentation products
- Computers and software for plant management
- Direct marketing of gas
- Direct marketing of power
- Marketing service providers

Substrate

- Seeds
- Storage, silos
- Seed systems
- Silage aid
- Fertilisers

Others

- Training

Address: Via Tiburzio Donadon 4 - 33170 Pordenone, PN, Italy

Phone: +39 0434 363601

E-Mail: info@iesbiogas.it

Website: www.iesbiogas.it

Contact person: Marco dott. Mazzero
m.mazzero@iesbiogas.it

Year founded: 2008

Total number of employees: 40

Number of employees in biogas department: 35

Turnover: 100 Mio Eur

Active biogas offices or sales in: Italy, Czech Republic, Romania, Serbia, Croatia, Poland, Bulgaria, Slovakia, Italy, Argentina

Key business area: IES BIOGAS is specialized in the design, construction, management and service of biogas/biomethane plants for the farm sector and food processing industries. IES philosophy is clear: 100% quality on materials, components and finishing. No compromises. The biogas plant is a crucial investment for your farm or agroindustry to overlook details which really prove to be of fundamental importance.

References

- Number of built biogas plants: 180
- Number of performed services: 220
- Total built electrical capacity of biogas plants: 150 MW_{el}
- Total serviced electrical capacity of biogas plants : 170 MWh
- Services performed in the following countries: Italy, Argentina, Poland, Serbia, Czech Republic and others

What makes your service unique to the biogas industry ?

IES SERVICE is the division dedicated to the plant's maintenance and management. After designing and building up more than 200 plants, in constantly operation with close to 100% efficiency rate, IES Energy Group restates the great importance of the performance upkeep with an integrated supervision and management system that guarantees a fast and efficient 24/7 service. We assure revamping interventions on plants developed by competitors and with different technologies.



Institute for Biogas, Waste Management and Energy

Services



Services/consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support

Science and research

- Advisory services for research projects (scientific and coordination)
- Biogas concepts integration development and energy system
- Organic waste to energy
- Pilot and research plants design

Other

- Training
- Conferences



References

- Number of performed services: over 100
- Total serviced electrical capacity of biogas plants: around 700 GWh per year
- Geographical split of performed services: Germany 60%, Brazil 10%, Sweden 5%, Colombia 5%, Norway 5%, Austria 5%, other countries 5%



What makes your service unique to the biogas industry ?

Deep knowledge developed during the provision of consulting services for the biogas industry and governmental authorities as well as through research in a very broad expert network forms the basis for future-oriented consulting activities. These encompass technical, ecological and economical innovative improvements for biogas plants as well as knowledge transfer.



Services

Manufacturers/suppliers of plant components

- Waste treatment
- Process aids (e.g. enzymes)

Services/consulting

- Biological support
- Nutrient auditing

Kemira

Address: Porkkalankatu, 3 FI 00101 – Helsinki, Finland

E-Mail: water@kemira.com

Website: www.kemira.com/en/industries-applications/biogas/pages/default.aspx

Contact person: Jean-Christophe Ades
jean-christophe.ades@kemira.com, +33 6 75 13 34 22

Year founded: 1920

Total number of employees: ~ 4,700

Number of employees in biogas department: 15

Total turnover: 2,4 Billion Eur (Kemira Group, 2015)

Active biogas offices or sales in the following countries: All European countries

Key business area: We help customers create more value by applying our expertise where water meets chemistry.

References

- Number of performed services : 50 in 2015
- Total serviced electrical capacity of biogas plants: 200 MW_{el}
- Geographical split of performed services: Germany 10%, UK 5%, The Netherlands 10%, Italy 5%, Poland 10%, Czech Republic 10%, Sweden 20%, Norway 5%, France 5%, Denmark 15%, Spain 5%

What makes your service unique to the biogas industry ?

Kemira biogas programme is a combination of application know-how and high performance products. It enables you to manage the whole process from feed to nitrogen removal with better process economics and higher efficiency through:

- Higher biogas yield
- Improved digester capacity
- Stabilised operation conditions
- Better dewater-ability
- Improved reject water quality
- Cleaner biogas

Services

Planners/manufacturers of biogas plants

- Project development/planning
- Arranging permitting
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Operators of biogas plants

- Biogas plant

Manufacturers/suppliers of plant components

- Safety systems, monitoring and warning systems

Services/consulting

- Consulting
- Biomass logistics
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Regional planning

Address: Naxou Str 12, Chalandri 152 35, Greece

Phone: +30 210 6095 775

E-Mail: info@kiefer.gr

Website: www.kiefer.gr

Contact person: Christos Petrocheilos
c.petrocheilos@kiefer.gr

Year founded: 2014

Total number of employees: 16

Number of employees in biogas department: 16

Active biogas offices or sales in the following countries: Greece

Key business area: KIEFER TEK LTD is a Greek construction company which specialises in Renewable Energy Sources and undertakes EPC power projects on a turnkey basis.

References

- Number of performed services: 2
- Number of performed services: 2
- Total built electrical capacity of biogas plants: 7,755 MWh
- Total serviced electrical capacity of biogas plants: 7,755 MWh
- Geographical split of performed services: Greece

What makes your service unique to the biogas industry ?

kIEFER TEK Ltd is the first company in Greece to undertake biogas projects as an EPC Contractor, providing integrated solutions for development, design, equipment supply, construction and maintenance. In this way we contribute to the development of the biogas technology in Greece, as we encourage investors to invest in Biogas.



Landwärme GmbH

Services



Planner/manufacture of biogas plants

- Project development/planning
- Arranging permitting

Operators of biogas plants

- Biomethane plants

Services/consulting

- Consulting

Others

- Training (trading of biomethane, verification and certification of biomethane, balancing group management, portfolio management)

Address: Ungererstraße 40, D-80802 München, Germany

Phone: +49 89 24 88 200 10

E-Mail: info@landwaerme.de

Website: www.landwaerme.de

Contact person: Martina Böhm
martina.boehm@landwaerme.de

Year founded: 2007

Total number of employees: 20

Number of employees in biogas department: 20

Total turnover: 120 Mio Eur

Turnover of biogas department: 120 Mio Eur

Active biogas offices or sales in the following countries: Offices in Germany; Sales in Germany, Austria, Benelux, Switzerland, Denmark, Sweden, Hungary

Key business area: Landwärme is a biomethane trader and service provider active in Europe. Trade in green gas constitutes our core competence. We deliver biomethane in all qualities from our comprehensive portfolio of 2 TWh biomethane – for the heating, electricity, and transport sector. Moreover, Landwärme operates 5 biogas upgrading plants and provides consultancy services for customers along the biomethane value chain.



References

Number of performed services:

- consulting on biogas upgrading for more than 20 projects
- development of 5 own biogas upgrading plants
- supply of more than 100 customers with biomethane



What makes your service unique to the biogas industry ?

Founded in 2007, Landwärme was among the first companies to engage in the German biomethane market. Therefore, customers benefit from our comprehensive market and industry knowledge. Our know-how at all levels of the biogas value chain allows us to provide innovative and unique solutions to our customers.





MALMBERG

Malmberg Water AB

Services

Planner/manufacture of biogas plants

- Full-system suppliers/turnkey plants

Address: SE-296 85 Åhus, Sweden

Phone: +46 44 780 18 00

E-Mail: info@malmberg.se

Website: www.malmberg.se

Contact person: Fredrik Nilsson
fredrik.nilsson@malmberg.se, +46 44 780 18 55

Year founded: 1866

Total number of employees: 150

Number of employees in biogas department: 50

Total turnover: 60 Mio Eur

Active biogas offices or sales in the following countries: Sweden, Denmark, Norway, Finland, Germany, UK, Italy, China

Key business area: Malmberg Biogas manufacture and supply machines for the upgrading of biogas to biomethane. Utilising the Water Scrubbing process, the Malmberg COMPACT® machine platform provides a range of sizes suited to upgrading biogas volumes from 100 to 3000 Nm³/h. Machines are equipped for the production of biomethane for vehicle fuel or gas to grid.

References

- Number of biogas plants built: 101

What makes your service unique to the biogas industry ?

Through our Concept Malmberg COMPACT® we offer gas refineries with the highest levels of performance and availability, as well as unique products and solutions. We are leaders in this field and have completed more than 100 gas treatment plants throughout Europe and China. The first Malmberg biogas upgrading plant was constructed as early as 1997.



Services



Substrate

- Seeds

Services/consulting

- Biomass logistics
- Substrate analysis/fermentation tests
- Biological support

Other

- Training

Address: 400 East Jamie Court, Suite 202, South San Francisco, California 94080, USA

Phone: +1 650 887 5700

E-Mail: bdnea@nexsteppe.com

Website: www.nexsteppe.com

Contact person: Jason Michael Blake
jblake@nexsteppe.com

Year founded: 2010

Total number of employees: 45

Number of employees in biogas department: 5

Active biogas offices or sales in the following countries: Austria, The Netherlands

Key business area: NexSteppe is dedicated to pioneering the next generation of scalable, reliable, cost-effective, and sustainable feedstock solutions for the biofuels, biopower, biogas, and biobased products industries. Through the development and commercialisation of tailored crops and fully-integrated feedstock solutions, NexSteppe is laying a foundation for a more secure and sustainable future for our economy, our environment, and our energy supply.

References



- Number of performed services: 8

What makes your service unique to the biogas industry ?



Focused on Industrial Feedstock Solutions to Support the Growing Biobased Economy. NexSteppe is a Leading Provider of Scalable, Reliable & Sustainable Feedstock Solutions, Designed & Optimised for the Biofuels, Biogas, Biopower, & Biobased Product Industries that Support Rural Agricultural Development.



Parker Hannifin Corporation, Hiross Zander Filtration Division

Services



Manufacturer/supplier of plant components

- Gas cleaning, gas processing

Address: Im Teelbruch 118, 45219 Essen, Germany

Phone: +49 2054 934 0

E-Mail: bioenergy-sales@parker.com

Website: www.parker.com/hzfd

Contact person: Steven Scott
steven.scott@parker.com, +44 191 402 9000

Year founded: 1918 (Parker Hannifin Corporation)

Total number of employees: 55,000 (Parker Hannifin Corporation)

Number of employees in biogas department: 10

Active biogas offices or sales in the following countries: Sales and service through global network of Parker offices and sales companies

Key business area: Biogas dehumidification systems, biogas and natural gas filtration, biomethane drying, siloxane removal, H₂S removal



What makes your service unique to the biogas industry ?

In the field of biogas and biomethane treatment, Parker are unique in being the original manufacturer of all key components such as gas filters, separators, coolers, adsorption dryers and Siloxane removal solutions. This means that our systems are built using our extensive experience of gas treatment applications and are designed to purify biogas and biomethane to the levels of cleanliness demanded by national and international standards. Our worldwide sales and service teams are highly experienced in supporting all Parker products which means we can offer support, advice and service wherever the installation is located.



HAFFMANS

Services

Planner/ manufacturer of biogas plants

- Project development/planning
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Manufacturer/ supplier of plant components

- Gas cleaning, gas processing
- Gas analysis
- Control & instrumentation systems
- Gas control systems
- Fans and compressors

Services / consulting

- Consulting
- Computers and software for plant management

Others

- Training



Address: Marinus Dammeweg 30, 5928 PW Venlo, The Netherlands

Phone: +31 77 323 23 00

E-Mail: NLVENmarketing@Pentair.com

Website: www.haffmans.nl

Contact person: Francois Huberts
francois.huberts@pentair.com, +31 77 32 32 372
Uwe Kikillus
uwe.kikillus@pentair.com, +31 77 8503 855

Year founded: 1947

Total turnover: \$6,4 Billion in 2015 (Pentair Ltd.)

Total number of employees: Pentair Ltd. 28,000; Pentair Haffmans 195

Active biogas offices or sales in: Worldwide

Key business area: Specialist in biogas upgrading and CO₂ recovery

References

- Number of biogas plants built: 28
- Total built gas capacity of biogas upgrading plants: 26,000 Nm³/h
- Geographical split of performed services: Germany, UK, France, The Netherlands, Norway, Philippines, South Africa

What makes your service unique to the biogas industry ?

Conventional biogas upgrading technologies produce a lean gas stream consisting of CO₂ and the environmentally-harmful methane slip. Pentair Haffmans' systems combine membrane separation with cryogenic CO₂ recovery. This eliminates any methane slip, and optionally provides liquid CO₂ as a second value stream for use in a variety of applications.

Renewable Energy Technology International AB (Renewtec AB)

Services

Services/consulting

- Consulting

Science and research

- Initiation and coordination of R&D projects related to renewable methane through bio-, thermo-, and electrochemical conversion

Address: Skarpskyttev. 10D, SE-22642 Lund, Sweden

E-Mail: jorgen.held@renewtec.se

Website: www.eng.renewtec.se

Contact person: Jörgen Held

Year founded: 2012

Total number of employees: 2

Number of employees in biogas and gasification department: 2

Active biogas offices or sales in the following countries: Sweden

Key business area: Coordination of R&D projects at European, national and regional level, relating in general to the production, distribution and utilisation of renewable methane and in particular to the small scale thermochemical conversion of biomass and waste to biomethane. Technology surveillance and dissemination activities including hosting the International Conference on Renewable Energy Gas Technology, REGATEC.

References

- Number of performed services: >50
- Geographical split of performed services: Sweden 75%, Baltic region 10%, Spain 8%, Germany 2%, India 2%, , Iceland 2%, Switzerland 1%

What makes your service unique to the biogas industry ?

Vast experience of R&D activities and project management, and an outstanding network of leading renewable energy experts in combination with deep knowledge in renewable energy gas technology.

Services



Services/consulting

- Consulting
- Biomass logistics
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing
- Safety assessors
- Approved monitoring centres, authorised persons
- Quality assurance for fermentation products

Address: Box 857SE-501 15 Borås, Sweden

Phone: +46 10-516 50 00

E-Mail: info@sp.se

Website: www.sp.se (www.ri.se)

Contact person: Jonas Dahl
jonas.dahl@sp.se

Year founded: 1920

Total number of employees: 2200

Number of employees in biogas department: 50

Active biogas offices or sales in the following countries: Sweden

Key business area: Providing consulting as well as science and research services regarding any aspects of biogas optimisation and development. Specialised measurements of location and quantification of methane leakage at biogas plants and other gas facilities. Development of new measurement methods. Swedish certifying body of bio - fertilisers.



What makes your service unique to the biogas industry ?

RISE Research Institutes of Sweden is the largest national research institute of Sweden performing industrial research and innovation in a wide range of expertise.

Services

Planners/manufacturers of biogas plants

- Project development/Planning
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Manufacturers/suppliers of plant components

- Fermenters/containers
- Waste treatment

Services/consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Financing
- Computers and software for plant management

Science and research

- Pilot test systems - 7 patents developed

Others

- Training

Address: Riviera Maestri del Lavoro, 12, Padova, Italy

Phone: +39 049 870 4817

E-Mail: info.it@rwlwater.com

Website: www.rwlwater.com

Contact person: Fabio Poletto
fpoletto@rwlwater.com, +39 348 8253538

Year founded: 1998

Total turnover: 8 Mio Eur

Total number of employees: 39

Number of employees in biogas department: 39

Key business area: RWL Water Italia offers solutions for desalination, water, wastewater, waste-to-energy, recovery and reuse, and food and beverage processing especially for the middle market. We offer water and wastewater treatment expertise in the following industries and more: Food & Beverage, Power, Oil & Gas, Municipal and Mining.

References

- Number of built biogas plants: 28
- Number of performed services: over 250
- Total built electrical capacity of biogas plants: 15 MWh
- Total serviced electrical capacity of biogas plants: 20 MWh
- Services performed in the following countries: Ecuador 3%, USA 3%, France 14%, Italy 80%

What makes your service unique to the biogas industry ?

RWL Water offers customised waste-to-energy plants for the production of biogas, beginning with analysis of the type and quantity of biomass to be treated in order to provide an optimal solution that fully meets the customer's needs. RWL Water personnel are experts in designing biomass plants and maximising biogas production. We install digesters that are engineered to continue working throughout routine or unscheduled maintenance.

Services

Manufacturer/ supplier of plant components

- Gas accumulators
- Covers, films and foils

Substrate

- Storage, silos

Services/consulting

- Consulting
- Safety accessors

Other

- Training
- Service and maintenance

Address: Sattlerstrasse 45, 8077 Gössendorf, Austria

Phone: +43 3382 733 0

E-Mail: biogas@sattler-global.com

Website: www.sattler-ceno-toptex.com

Contact person: biogas@sattler-global.com, +43 3382 733 0

Year founded: Sattler Ceno TOP-TEX GmbH 2016 (Sattler: 1875)

Total number of employees: 669 (Sattler Group)

Number of employees in biogas department: 16

Total turnover: 126 Mio Eur (Sattler Group)

Turnover of biogas department: 10 Mio Eur

Active biogas offices or sales in: Austria, Germany; Representatives: Belgium, Chile, China, France, Hungary, India, Israel, Italy, Japan, Korea, Malaysia, The Netherlands, Poland, Portugal, Spain, Thailand, UK, USA; Sales: Worldwide

Key business area: A reliable system is based on technologies and services that are optimally harmonised. With our broad series of products, ranging from air-supported systems to mast-supported substrate coverage systems, we are able to offer you the right solution. Our products include Double Membrane Gas Storage, Double Membrane Gas Storage tank-mounted, High Silo Roof, Biogas Roof single-layer, Biogas Roof double-layer, Gas Bag, and Lagoons.

References

- Installed Biogas Storage Systems and Foilroofs ~ 4,000
- Services performed in the following countries: Germany, Austria, UK, The Netherlands, Italy, Switzerland, Czech Republic, Poland, USA, Australia, Russia, Belgium, France, Hungary, india, Israel, Japan, Korea, Malaysia, Portugal, Spain, Thailand Chile, China

What makes your service unique to the biogas industry ?

Sattler Ceno TOP-TEX GmbH revolutionised the biogas storage sector 35 years ago, with the invention of Double Membrane Gas Storage. More than 1,000 biogas storage units installed worldwide attest to the quality of our products. The membrane-based storage technology provides our customers with many advantages: durability, low maintenance, quick installation, permanent gas resistance, and low operating costs.

Services



Substrate

- Silage aid

Services / consulting

- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing
- Approved monitoring centres, authorized persons

Others

- Training

Address: An der Mühlenau 4, 25421 Pinneberg , Germany

Phone: +49 41 012 185 400

E-Mail: info@schaumann-bioenergy.eu

Website: www.schaumann-bioenergy.eu

Contact person: Harald Lindorfer
harald.lindorfer@schaumann-bioenergy.eu, +49 41 012 185 400

Year founded: 2005

Total number of employees: 2,000

Number of employees in biogas department : <50

Active biogas offices or sales in: EU Member States, Brazil, Canada, China, USA, Thailand

Key business area: Consulting, biological support, process optimisation, analytics

References



- Number of built biogas plants: 150
- Number of performed services: 3,000
- Total built capacity of biogas plants: 40 MWh
- Total serviced capacity of biogas plants: 1,000 MWh
- Services performed in the following countries: Germany, Italy, Austria, UK, The Netherlands, Switzerland, Slovakia, Czech Republic, France, Baltic states, Scandinavia, South America, Canada/USA

What makes your service unique to the biogas industry ?



Schaumann BioEnergy is a specialist in the generation of biogas, from substrate preparation to fermenter biology. Due to our huge experience in the operation of biogas installations we can offer solutions for any digester type and any substrate, from agricultural substrates to organic wastes.

Services

Planner/ manufacturer of biogas plants

- Project development/planning
- Arranging permitting
- Construction and commissioning support
- Full-system suppliers/turnkey plants

Operators of biogas plants

- Biogas plants
- Biomethane plants

Manufacturer/supplier of plant components

- Fermenters/containers
- Feeding, metering and weighing systems
- Stirring and pump systems
- Gas accumulators
- Gas cleaning, gas processing
- Gas analysis
- Control & instrumentation systems
- Gas control systems
- Fans and compressors
- Cogeneration units
- Other energy conversion technologies (e.g. ORC, fuel cells)
- Safety systems, monitoring and warning systems
- Waste treatment
- Process aids (e.g. enzymes)
- Fermentation product processing, separation systems
- Heat utilisation

Substrates

- Storage, silos

Services / consulting

- Consulting
- Biomass logistics
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support
- Nutrient auditing
- Approved monitoring centers, authorized persons
- Computers and software for plant management
- Direct marketing of power

Science & Research

- Power-to-gas
- Microbiological research

Others

- Training

Address: Bayernwerk 8, 92421 Schwandorf, Germany

Phone: +49 9431 751 0

E-Mail: info@schmack-biogas.com

Website: www.schmack-biogas.com

Contact person: Markus Raab,
markus.raab@schmack-biogas.com, +49 9431 751 416

Year founded: 1995

Total number of employees: over 330

Number of employees in biogas department: over 330

Active biogas offices or sales in: Italy, USA, UK, Turkey
Representatives: France, Belgium, The Netherlands, Czech Republic, Switzerland, Austria, Poland

Key business area: Turnkey supplier of biogas technologies, offering dry and wet anaerobic digestion solutions ranging from 75 kW_{el} to 20 MW gas and providing professional support for all biogas-related issues: plant design, construction and commissioning, components, gas-upgrading technology, wet and dry anaerobic digestion plants, technical services and biological support.

References

- Number of built biogas plants: over 450
- Number of Process Analysis: more than 70,000
- Total built capacity of biogas plants: over 180 MW
- Total serviced capacity of biogas plants: 900 MW
- Services performed in the following countries: Germany, Italy, Austria, UK, Switzerland, Slovakia, Czech Republic, Bulgaria, Poland

What makes your service unique to the biogas industry ?

Schmack offers a wide range of technologies for digesting various input materials – dry AD for organic waste materials, and wet AD for energy crops and gas upgrading plants. Customers have flexibility in their choice of AD technology and can profit from synergies between the comprehensive treatment and power generation technologies.

Services

Manufacturer/supplier of plant components

- Stirring and pump systems

Address: Pettermandstr. 2, D-88239 Wangen/Allgäu, Germany

Phone: +49 7522 7079650

E-Mail: info@streisal.de

Website: www.streisal.de

Contact person: Peter Starz
p.starz@streisal.de, +49 7522 707 965

Year founded: 1988

Total number of employees: 20

Number of employees in biogas department: 10

Active biogas offices or sales in: Worldwide

Key business area: Development, manufacturing and global marketing of innovative agitators and mixing systems for biogas plants, wastewater technology and industrial applications.

- submersible mixers from 1-18,5 kW (medium and slow-speed, with propeller diameters of up to 2,8 m)
- vertical agitators
- long-axis agitators
- rod agitators

References

- Number of biogas plants equipped: over 900
- Services performed in the following countries: Germany, Austria, Netherlands, Italy, France, Croatia, Czech Republic, UK, Switzerland, Slovakia, Serbia, Spain, Poland, Luxembourg, Hungary, USA, Japan, Brazil and others.

What makes your service unique to the biogas industry ?

Out of our very broad portfolio, we compile individual solutions to fulfill the desired mixing task and to reach highest energy efficiency for customer specific requirements.

Based on our many years of experience and our knowledge gained from numerous mixing experiments, we are also able to supply custom solutions for unusual problems.

Services

Science & Research

- Research and development of innovative new technologies
- Process design and modeling
- Design, built and operation of lab scale and pilot plants
- Economic modeling; CAPEX & OPEX analysis & optimisation
- Optimisation and Troubleshooting of processes
- Environmental Impact Analysis and Monitoring
- Value Chain Analysis
- Pilot plant operator training

Address: Leeghwaterstraat 46, 2628CA Delft, The Netherlands

Phone: +31 888 661 324

E-Mail: info@tno.nl

Website: www.tno.nl

Contact person : Leon Stille
leon.stille@tno.nl, +31 652 779 011

Rob Vanderstel
rob.vanderstel@tno.nl, +31 622 992 863

Year founded: 1932

Total number of employees: 4,000

Number of employees in biogas department: 50

Active biogas offices or sales in: Europe, Asia and South America

Key business area: TNO is an independent R&D institute. We specialise in applied innovative research in a broad range of fields for the benefit of society and industry. We are active in the fields of healthy living, industrial innovation, defense and security, transport and mobility, energy, built environment and the information society.

References

- Number of built biogas plants: several pilot demonstration plants for biogas upgrading and fermentation
- Services performed in the following countries: The Netherlands, Germany, France

What makes your service unique to the biogas industry ?

TNO is working on the entire biogas value chain from biogas production, upgrading, transport, distribution and valorisation. We have the necessary infrastructure and modeling capabilities. Combined with in-house experience and expertise TNO provides a development and support platform for independent research and technology development from lab to pilot to demonstration.



Technische Universität Wien, Institute of Chemical Engineering

Services

Services / consulting

- Consulting
- Fermentation product analysis
- Computers and software for plant management

Science & Research

- Research on biogas upgrading, knowledge-transfer and training, development of future solutions for biogas plants, research on renewable energies and Power-to-Gas

Others

- Training



Address: Getreidemarkt 9/166-2, 1060 Vienna, Austria

Phone: +43 1 58801 166202

E-Mail: michael.harasek@tuwien.ac.at

Website: www.vt.tuwien.ac.at

bio.methan.at

Contact person: DI Dr Michael Harasek

Year founded: 1815

Total number of employees: 4,800

Key business area: Research in the field of gas upgrading, renewable energies, power-to-gas.

What makes your service unique to the biogas industry ?

Impartial assistance for biogas plant operators, based on well-founded knowledge and academic research, concerning alternative biogas use in the form of gas upgrading for grid injection, bio-CNG and biomethane application and Power-to-Gas. Design, optimisation and implementation of actual concepts in cooperation with plant constructors. Independent monitoring of the performance parameters of gas upgrading plants.





Dutch
Metrology
Institute

VSL

Services



Manufacturers/suppliers of plant components

- Gas analysis

Science & Research

- VSL is coordinating a European R&D project aiming at developing measurement standards and methods for delivering calibration and measurement services related to biogas, biomethane and upgraded biogas.

Others

- Training

Address: Thijsseweg 11, Delft, The Netherlands

Phone: +31 15 291500

E-Mail: vsl@vsl.nl

Website: www.vsl.nl

Contact person: Adriaan van der Veen, avdveen@vsl.nl

Year founded: 1989

Total number of employees: 100

Key business area: Calibration and measurement services for temperature, pressure, humidity, natural gas, biomethane, biogas, trace impurities, and gas flow measurements.



Services

Manufacturer/supplier of plant components

- Substrate preparation and processing
- Stirring and pump systems
- Control & instrumentation systems
- Waste treatment

Address: Gesällvägen 33, Sundbyberg, 174 87 Sweden

Phone: +46 8-475 60 00

E-Mail: info@xyleminc.com

Website: www.xyleminc.com

Contact person: Eilert Balssen
eilert.balssen@xyleminc.com, +49 171 55344 52

Maja Rosiak
maja.rosiak@xyleminc.com, +46 707 1660 92

Year founded: 1968

Total number of employees: 12,900 worldwide

Total turnover : 3,5 Billion Eur

Active biogas offices or sales in: Xylem operates in more than 360 locations on 6 continents. We are able to support biogas customers in every location.

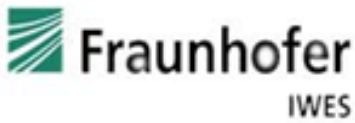
Key business area: Efficient pumping and mixing systems for biogas, agriculture, municipal and industrial market.

What makes your service unique to the biogas industry ?

Xylem Water Solutions has been active in the biogas market since 1992. During that time we have equipped more than 5,000 biogas plants worldwide with mixers and pumps.

Xylem guarantees an outstanding service for our customers by providing reliable mixing and pumping solutions supported by deep application knowledge.

Associated Members of the EBA



Dr. Jörgen Held (RENEWTEC)



Dutch Metrology Institute



Lars Salling



Knowledge grows

VIESSMANN Group



HAFFMANS



TNO innovation
for life

bioprocess
CONTROL

QIES BIOGAS
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Advantages for Associate Members

- **Visibility of your company and services in the Companies' Catalogue**
- **Broadcasting your successful projects in Success Stories Catalogue**
- **Creation and visibility in brochures on biogas specific topics**
- **Networking events**
- **Raise the visibility of your studies**
- **Provide scientific evidence to EBA position papers and public communication**
- **Advise on programme EBA workshops and conference**
- **Support EBA Board in evaluation of project proposals**
- **Extended cooperation with other members (research institutes, universities) within SAC in order to increase exchange of experience and information in biogas research.**

Address: 63-67 Rue d'Arlon, 1040, Brussels, Belgium

Phone: +32 (0)2 400 1089

Email: info@european-biogas.eu

Website: www.european-biogas.eu

About the EBA

EBA's strategy is based on reaching the full potential of biogas and biomethane production, that equals roughly 10% of EU's current natural gas consumption. Furthermore, EBA's work evolves around the major contributions of biogas and biomethane to the key EU policies such as climate targets, energy security, resource efficiency, circular economy and various environmental legislation including air quality, prevention of contamination, bioeconomy and waste management.

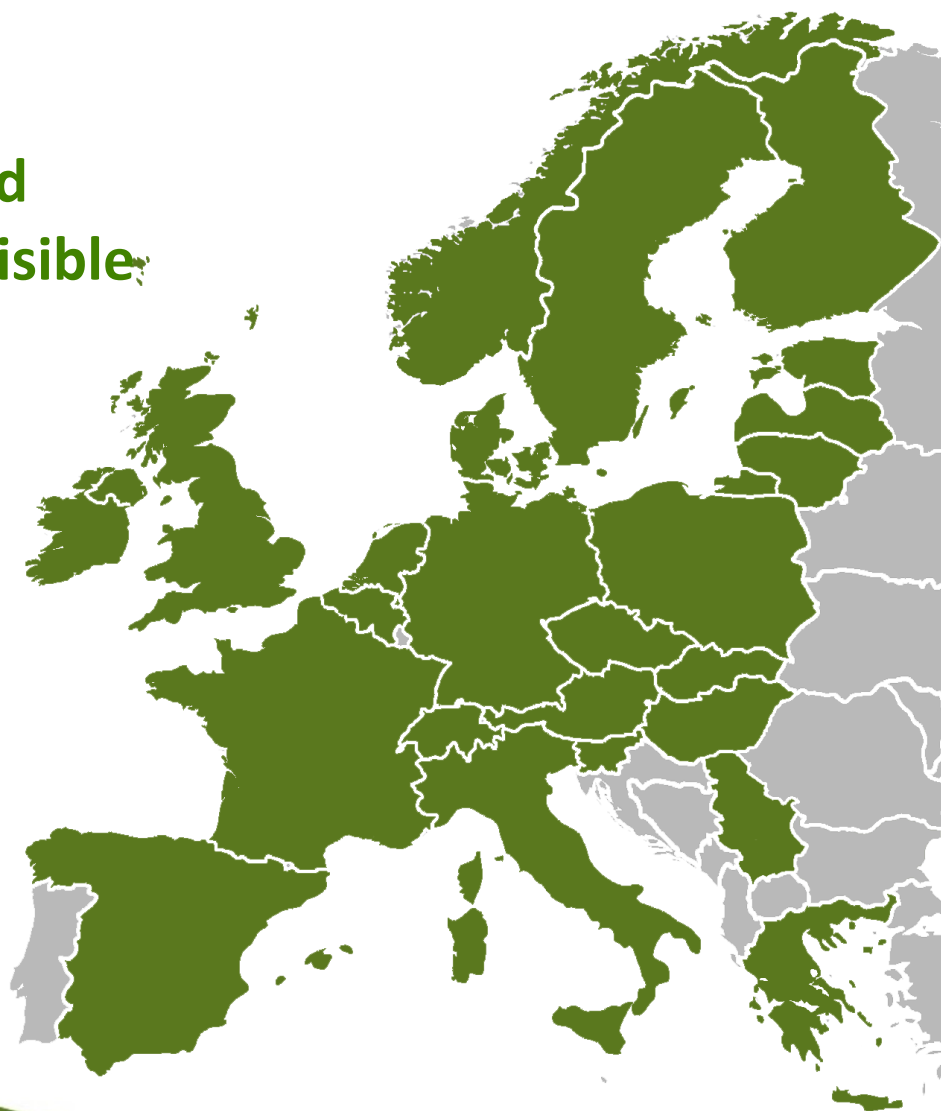
EBA is the only European-wide organisation that supports the entire biogas and biomethane industry and liaises with policy makers in Brussels in order to steer the legal framework of biomethane.

EBA has an extended network across Europe. Our members are national biogas associations, international companies, research institutes as well as private persons. As a company member you can participate and contribute to the EBA's work over the platform of the CAC Company Advisory Council.

EBA is also a partner in different EU projects (e.g. BIOSURF, Biogas Action). As a company member you can be involved in our research activities and cooperate with EBA in removing existing barriers for biogas.

**Become a member and
make your company visible
in the catalogue!**

*Over 90 members
from 25 countries*



EBA
European Biogas Association

European Biogas Association

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