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 2018
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<table>
<thead>
<tr>
<th>Name</th>
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<th>Services, consulting</th>
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# Who is Who?

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

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Companies Profiles
AB Energy SpA

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
ciao.pezzola@gruppoab.it, +39 030 9942485

Year founded: 1981

Total number of employees: 700

Total turnover: € 230 million

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

Geographical split of performed services:
Italy, Germany, Bulgaria, Poland, Russia, Greece, Romania, Serbia, UK, France, Croatia, Macedonia, Brazil, Mexico, Czech Republic.

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

Services

- Planners/manufacturers of biogas plants
  - Project development/planning
  - Arranging permitting
  - Construction and commissioning support

- Plant operators
  - Biogas plant

- Manufacturers/suppliers of plant components
  - Cogeneration units
  - Heat utilisation

- Services/consulting
  - Consulting
  - Financing
  - Equipment and software for plant management

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

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.
Agraferm GmbH

**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 100

**Year founded:** 2004
**Total number of employees:** 60

**Number of employees biogas department:** AD: 60

**Key business area:** Technology supplier and contractor for anaerobic digestion, biogas, biomethane / BioCNG. For food industry, waste companies or just profitably thinking farmers. Europe’s largest agro plant providing 55 mio m³ of biogas per year. Awarded “Best Practice” by German Government. Branch BTA International provides hydro-mechanical pre-treatment of wastes and MSW. More than 140 references.

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**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
- Biomethane plant

**Manufacturers/suppliers of plant components**
- Fermenters/containers
- Process aids (e.g. enzymes)
- Biogas Upgrading units (to biomethane)
- Equipment

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

**Others**
- Training

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**References**

- Number of built plants: AD: 140
- Total built electrical capacity of plants (MWh):
  AD: 550 mio m³/a biogas = 5,500 GWh heat
- Services performed in following countries: 140 references in roughly 20 countries worldwide.

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**What makes your service unique to the biogas industry?**

- **30 years’ experience** in Agraferm Group.
- **Made in Germany,** awarded “Best Practice” by German Government.
- **Europe’s largest agro plant:** 55 mio m³/yr. biogas
- **High performance process:** top input flexibility at minimum footprint and minimum OPEX
- **Strong process liability**, smart but not sophisticated
- **Customized solutions**, based on modular technology.
APROVIS Energy Systems GmbH

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: 130
Number of employees in anaerobic digestion 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).

Services

Manufacturers/suppliers of plant components
- Gas cleaning, gas processing
- Heat utilisation

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.
Awite Bioenergie GmbH

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, Italy, Brazil 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.

Services

Manufacturers/suppliers of plant components
- Gas analysis
- Control and instrumentation systems

Science & research
- Pilot plants laboratory

References

Number of performed services: close to 2500 analysers in above mentioned applications, more than 120 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.
Balmoral Tanks Ltd

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

Services

Address: Wombwell, Barnsley, Sth Yorkshire, S73 0LR, UK
Phone: +44 1226 340 370
E-Mail: industrialtanks@balmoral.co.uk
Website: www.balmoral tanks.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.
Science and research
- Feedstock
- LCA
- Microbiology digestate
- System integration
- Technology development
- Gas utilization

Others
- Conferences
- Networking

Address: Linköpings universitet - 581 83 Linköping
Phone: 013-28 1726 / 013-28 47 17
E-Mail: mats.eklund@liu.se / anna.brunzell@liu.se
Website: www.biogasresearchcenter.se
Contact person: Anna Brunzell, 013-28 47 17
Email: anna.brunzell@liu.se
Year founded: 2012

Total number of employees: Researchers within the BRC comes from seven different divisions at Linköping University: Biology, Energy Systems, Business Administration, Environmental Technology and Management, Molecular Biotechnology, Environmental Change and Technology and social change. In addition we have 21 external partners and members from industry and public service.

Active biogas offices or sales in: Sweden

Key business area: The Biogas Research Center (BRC) is a centre of excellence in biogas research funded by the Swedish Energy Agency (which contributes one third of the funding), Linköping University (which contributes another third) and a number of external organizations (which collectively make up the final third). The BRC has a broad, interdisciplinary approach, bringing together biogas-related skills from several areas to foster interaction on many levels.

What makes your service unique to the biogas industry?

The aim of BRC is to create strong, national competencies leading to industrially and socially motivated research on and development of biogas solutions. Main emphasis is on process and technology, supplemented with systems research and social science for analyzing resource efficiency and social and business conditions as this knowledge is central for resource-efficient biogas solutions to be implemented. BRC is financed to one third by the Swedish Energy Agency, to one third by Linköpings University, and to one third by participating partners from business and society. Participants from business and society not only contribute financially but with considerable time and commitment. They take active part in research and can influence activities within the center and take results into commercial practice.
Key business area: Biogest is a company with well-established coverage within Europe and also serves the global market, for example in the USA and South-East Asia.

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.
Bioprocess Control Sweden AB

Manufacturer/supplier of plant components
- Control and instrumentation systems
- Substrate preparation and processing

Services and consulting
- Consulting
- Substrate analysis/fermentation tests
- Fermentation product analysis
- Biological support

Science and research
- Feedstock
- Pilot plants laboratory
- Technology development

Others
- Training

Address: Scheelevägen 22, 223 63 Lund, Sweden
Phone: +46 46 163 950
E-Mail: info@bioprocesscontrol.com
Website: www.bioprocesscontrol.com
Contact person: Dr. Jing Liu
jl@bioprocesscontrol.com +46 46 163951
Year founded: 2006
Total number of employees: 9
Number of employees in the Anaerobic Digestion sector: 9

What makes your service unique to the biogas industry?

Bioprocess Control is a market leader in the area of low gas flow analytical instruments for biotechnology related applications. We invest in innovation and development of smart instruments that allow for more efficient, reliable and higher quality research and analysis, leading to significant reductions in time and labour. We ensure the highest product quality throughout our portfolio, and focus on being service minded and always meeting the needs of our customers. The company’s flagship product, the Automatic Methane Potential Test System (AMPTS), has become the preferred analytical instrument around the world for conducting various anaerobic batch fermentation tests. Bioprocess Control’s product portfolio offers academic and industrial actors working with biogas, animal feed, wastewater, and other fields exciting products for low gas flow measurements, substrate analyses and process simulations.
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, digestate processing, nutrient recovery, H₂ utilisation, viscosity, biorefinery, fermentation, microbiology, utilisation of industrial waste, algae

Others
- Training

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

**Science and research**
- Feedstock
- Mixing
- Pilot plants laboratory
- LCA
- Microbiology digestate
- System integration
- Technology development
- Gas utilisation

**Services and consulting**
- Consulting

**Others**
- Conferences
- Marketing
- Networking

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**Biorefine Cluster Europe**

**Address:** Lab.of Environmental Chemistry (ECOCHEM)
Coupure Links 653, 9000 Gent

**Phone:** +32 9 264 93 96

**Mail:** info@biorefine.eu

**Website:** www.biorefine.eu

**Contact person:** Erik Meers - Erik.Meers@UGent.be

**Year founded:** 2013

**Total number of employees:** 5

**Number of employees in the following departments:**
AD: 1 / Gasification: 1 / P2G: 1

**Key business area:** The Biorefine Cluster Europe interconnects projects and people within the domain of nutrient and energy cycling, striving to contribute to a more sustainable resource management. (Research projects focusing on the refinement of chemicals, materials, energy and products from bio-based waste streams.)

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**What makes your service unique to the biogas industry?**

Different European research projects related to biogas and nutrient recycling are member of the Biorefine Cluster, where they form a community of experts that interact at different levels. Knowledge exchange and interaction is enhanced through the website, the monthly bulletin, joint events and inter-project meetings. The Cluster fosters stakeholders outreach and enhances research, policy and business development in the sector.

See: www.biorefine.eu
BTA International GmbH

Address: Färberstraße 7, 85276 Pfaffenhofen a.d. 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: AD: 20
Total turnover: €5 - 10 Million
Turnover of biogas department: €5 - 10 Million

Active biogas offices or sales in:
Licensees:
Biotec Sistemi S.r.l - Italy (www.biotec-sistemi.it)

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: 48 (AD)

9 Mechanical Biological Treatment Plants for municipal solid waste, 24 biogas plants for biowaste, food waste and/or commercial waste, 4 co-digestion plants with sewage sludge, 3 co-digestion plants with agricultural residues, 8 agricultural biogas plants.

Cumulated treatment capacity: 1,25 million tons (incl. 286 thousand under construction)
Cumulated annual biogas production: approx. 127 million Nm³ (incl. approx. 29 million Nm³ under construction)

Refurbishment:
Refurbishment of wet pre-treatment and methanization line at 3 Mechanical Biological Treatment Plants and 1 Digester at Biowaste Treatment Plant.

Geographical split of performed services: Germany 30% - Austria 12% - UK 6 % - The Netherlands - Italy 10% - Switzerland - Czech Republic - Spain 10% - Portugal 4% - North America 8% - Asia and Australia 10% - Others 10%

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 according to the BTA® Process for the production of biogas. The efficient removal of impurities prior to digestion is key for the successful digestion of biowaste, food waste, commercial waste and the organic fraction from municipal solid waste. BTA® Hydromechanical Pre-treatment is characterized by its substrate flexibility and its high efficiency in the removal of impurities from organic suspension. This leads to a high level of operational reliability, minimizes the cost of disposing of reject materials, maximizes biogas yield and ensures a premium digestate quality, and thus also the quality of the final compost material.
Services

Planner/ manufacturer of biogas plants
- Project development/planning
- Construction & commissioning support
- Arranging permitting
- Full-system suppliers/turnkey plants

Operator of biogas plants
- Biogas plants
- Biomethane plants
- Gasification plant
- P2G plant

Manufacturer/supplier of plant components
- Cogeneration units
- Connection to gas grid
- Control & instrumentation systems
- Fans and compressors
- Feeding, metering and weighing systems
- Fermentation product processing, separation systems
- Fermenters/containers
- Gas accumulators
- Gas analysis
- Gas cleaning, gas processing
- Gas control systems
- Gasifiers
- Heat utilisation/Heating pipes
- Hygiene systems
- Methanation (CO$_2$ + H$_2$)
- Pipes
- Process aids (e.g. enzymes)
- Safety systems, monitoring and warning systems
- Size reduction/depacking systems
- Stirring and pump systems
- Substrate preparation and processing
- Syngas processing
- Washing and cleaning systems
- Waste treatment
- Post treatment

Substrate
- Various fertilisers

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

Science & Research
- Feedstock / Mixing / Microbiology digestate / System integration / Technology development / Gas utilisation

Others
- Training / conferences

References:
- Number of built biogas plants: AD: 201 / Gasification: 1
- Number of performed services: 100
- Total built electrical capacity of biogas plants: AD: 165 MWh
- Total serviced electrical capacity of biogas plants: AD: 90 MWh
- Services performed in following countries: Italy, UK, Germany, France

What makes your service unique to the biogas industry?

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

Our pillars:
- Maximum, quality, efficiency and plant cost-effectiveness
- Turnkey plants (EPC contractor) and financing
- 24/7 Mechanical and Biological Optimization and Assistance
- Valorization of leftover through proper and sustainable post-treatments

BTS Biogas

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

Contact person in case of any business request: Bjoern Blankespoor – Mob. +39 348 31 78 956 – Email B.Blankespoor@bts-biogas.com

Year founded: 2008

Number of employees: AD: >80 / Gasification: 5 / P2G: 5

Active biogas offices or sales in: Italy, UK, France, Americas, Germany, Poland, Japan, Thailand, S. Korea

Key business area: BTS Biogas deals with design, installation, construction and service of biogas plants. We offer unique technologies like the BIOaccelerator, straw and waste pre-treatments; BIMetan and the software dinaMETAN, which increase and optimize the productivity and profitability of our power plants. We also offer biological and technical after sales assistance, consulting and have our own METANlab.
Carbotech Gas Systems GmbH

Address: Kronprinzenstr. 30, 45128 Essen -Germany
Phone: +49 201 50709-300
E-Mail: info@carbotech.info
Website: www.carbotech.info
Contact person: alfons.schulte@carbotech.info
Year founded: 1989
Number of employees in biogas department: 50
Active biogas offices or sales in: EU, North America

Services

Planner/ manufacturer of biogas plants
- Full-system suppliers/turnkey plants
Manufacturer/supplier of plant components
- Connection to gas grid
- Gas cleaning, gas processing
- Hydrogen treatment/compression
- Methanation (CO2 + H2)
- Syngas processing
Science & Research
- Technology development
- Gas utilization
Others
- Training

References

- Number of built biogas plants: AD: >80 / P2G : 1

What makes your service unique to the biogas industry?

As a pioneer in biogas upgrading, Carbotech has developed, designed and built upgrading technologies and plants since the mid 1980’s, developing the first biogas to natural gas grid injection installations in Switzerland in 1993/1994, and subsequently in Germany in 2005. Carbotech’s upgrading technology has improved to reach the highest level of overall efficiency in terms of power and heat requirement and methane recovery.
DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH

Services

Operator of biogas plants
- Research biogas plants

Services / consulting
- Consulting
- Substrate analysis/fermentation tests
- Process development
- Scientific steering of research projects

Unique services:
The available experimental equipment ranges from lab scale to full scale (digestor size: 160 m³).

Others
- Training

Address: Torgauer Str. 116
Phone: +49 (0)341 2434-112
E-Mail: info@dbfz.de
Website: www.dbfz.de
Contact person:
Dr. Jan Liebetrau (Head of the Biochemical Conversion Department)
Tel.: +49 (0)341 2434-716

Year founded: 2008
Total number of employees: 223 (as per 14.12.2017)
Total turnover: approx. 21 million

Key business area: The DBFZ works as a central and independent thinker in the field of energy and the material use of biomass, addressing the question of how limited biomass resources can contribute to the existing and future energy system sustainably and with a high level of efficiency.

References

Geographical split of performed services: Germany, EU (Projects), China, South Afrika, Brazil, Canada

What makes your service unique to the biogas industry?

The DBFZ’s Biochemical Conversion department researches the production of energy source materials from biomass using micro-organisms. Its focus is on technologies for biogas recovery and use. It also considers the efficient use of material flows and closed nutrient cycles, as well as supporting the demonstration of new and improved plants and components. All activities are undertaken against a background of detailed evaluation of the market and technical progress, which is facilitated by participation in various monitoring projects.
DESOTEC offers a customized package of mobile activated carbon filters. Furthermore, DESOTEC has developed a collection of top-of-the-range adsorption products that maximize performance and keep costs down 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 maximum performance.

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 customized package of mobile activated carbon filters. Furthermore, DESOTEC has developed a collection of top-of-the-range adsorption products that maximize performance and keep costs down 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 maximum performance.

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: 120
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 and chemicals
DMT Environmental Technology

Address: Yndustrywei 3, 8501 SN Joure, The Netherlands
Phone: +31 513 63 67 89
E-Mail: info@dmt-et.nl
Website: www.dmt-et.com
Contact person: Harmen Dekker
hdekker@dmt-et.nl, +31 513 63 67 89
Year founded: 1987
Total number of employees: 65
Number of employees in biogas department: 50
Total turnover: 20 Mio Eur

Active biogas offices or sales in: Europe; The Netherlands and UK. North America; USA and Canada. Asia; Malaysia

Key business area: DMT Environmental Technology is your total solutions provider when it comes to biogas upgrading and resource recovery. With our innovative solutions we always have the best technology for your (biogas) or resource recovery project.

References

- Number of built biogas plants: 30
- Services performed in the following countries: Germany, UK, Netherlands, Switzerland, throughout rest of Europe and North America (Canada and USA)

What makes your service unique to the biogas industry?

When it comes to biogas upgrading and recovering resources from biomass streams, there is no doubt that DMT should be your choice. Equipped with over 30 years of experience we serve our customers and help them with their environmental challenges. Our offices are strategically placed globally.

Our sustainable technology for the recovery of raw materials and nutrients from waste water is one of the most efficient technologies on the market to date. Biomass Hydrolysis of waste activated sludge (WAS) results in up to 35% more biogas during the digestion process, and 30% TS more dewatering can be achieved. By using TurboTec® the capacity of existing digesters can be increased or smaller digester can be installed for new treatment plants.

DMT offers a suite of cost effective solutions that are achieved through our team of engineers and highly motivated employees to help you achieve your goals!
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 knowledge of DSM in fermentation management, DSM is also actively working on major innovations in the biomass utilization for renewable fuel or bio based chemistry.
DuPont Industrial Biosciences focuses on the biochemical and microbiological aspects of anaerobic digestion. We partner with the best biogas technology developers and producers so that we can concentrate on the molecular problems of the biogas production process. Our enzyme solutions can enhance a producer’s biogas manufacturing process by improving biogas yields and productivity; they can increase fermentation rate and decrease hydraulic retention time, reduce feedstock consumption, reduce viscosity, and improve process robustness.

Manufacturers/suppliers of plant components
- Process aids (e.g. enzymes)
- Size reduction/depacking systems
- Substrate preparation and processing
- Waste treatment

Substrate
- Silage aid

Services / consulting
- Consulting
- Biological support

Science and research
- Mixing
- Technology development

Address: Archimedesweg 30 - P.O. Box 218 - 2300 AE Leiden - The Netherlands
Phone: +31 71 5686 168
Website: http://bioscience.dupont.com/advanced-biofuels-contact-us
Year founded: 1802
Total number of employees: over 52,000
Active biogas offices or sales in the following countries: USA, Canada, Netherlands, Italy, UK, Germany
Total turnover: 66.6 billion euros
Key business area: Industrial biosciences, advanced biofuels and renewable energy, animal nutrition, home care & cleaning, carbohydrate processing, food & beverage, textiles, and personal care

What makes your service unique to the biogas industry?

DuPont Industrial Biosciences focuses on the biochemical and microbiological aspects of anaerobic digestion. We partner with the best biogas technology developers and producers so that we can concentrate on the molecular problems of the biogas production process. Our enzyme solutions can enhance a producer’s biogas manufacturing process by improving biogas yields and productivity; they can increase fermentation rate and decrease hydraulic retention time, reduce feedstock consumption, reduce viscosity, and improve process robustness.
ECN Energy research
Centre of the Netherlands

Address: Westerduinweg 3, 1755 LE Petten, The Netherlands
Phone: +31 88 515 4949
Email: info@ecn.nl
Website: www.ecn.nl
Contact person: Katharina Andrés
andres@ecn.nl, +31 6 3024 2764
Year founded: 1955
Total number of employees: ~500

Key business area: ECN develops sustainable energy technology in the solar, wind and biomass sectors. Biomass activities relate to the 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.
ENGIE is a worldwide and global energy services provider. The Group positions itself as a leader in energy transition.

Thanks to our presence along the whole value chain, ENGIE provides biomass and waste valorization solutions from engineering and construction to O&M, as well as trading and finance. ENGIE has an integrated renewable approach for all projects.

Services

**Planners/manufacturers of biogas plants**
- Project development, including planning, permitting, financing and construction.

**Plant operators**
- Biogas plant
- Biomethane plant
- Gasification plant

**Services / consulting**
- Direct marketing of power
- Direct marketing of gas

**Science and research**
- Feedstock
- Mixing
- Pilot plants laboratory
- LCA
- Microbiology digestate
- System integration
- Technology development
- Gas utilisation

What makes your service unique to the biogas industry? 

ENGIE is a worldwide and global energy services provider. The Group positions itself as a leader in energy transition.

Address: Place Samuel de Champlain, Faubourg de l’Arche, 92930 Paris La Défense

E-Mail: biogas.biomethane@engie.com

Website: http://www.engie.com/

Year founded: 1946

Total number of employees: 153 090

Total turnover: 66.6 billion euros

Key business area: ENGIE is a global energy player and an expert operator in electricity, gas and energy services. As a leader in energy transition, ENGIE is active in green energies, including anaerobic digestion, gasification and H2 generation, offering services from R&D, engineering and construction to finance and trading.
ETW Energietechnik GmbH

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.

Disclaimer: Please note that the information used on this page is taken from last year’s edition of the EBA Companies Catalogue. The information could not be updated.
Evonik Resource Efficiency GmbH

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: 130

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.
Fluence Italy SRL

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

Science and research
- Pilot plants laboratory
- Technology development

Others
- Training

Address: Riviera Maestri del Lavoro, 12, Padova, Italy
Phone: +39 049 870 4817
E-Mail: Info.it@fluencecorp.com
Website: www.fluencecorp.com
Contact person: Laura Silvello, Isilvello@fluencecorp.com, T: +39 049 8704 817
Year founded: 1998
Total number of employees: 39
Number of employees in biogas department: AD: 39

Key business area: Fluence Italy offers solutions for desalination, water, wastewater, waste-to-energy, recovery & reuse, and food & beverage processing, especially for the middle market. We provide water and wastewater treatment expertise in the food & beverage, power, oil & gas, municipal and mining industries, among others.

References

- Number of built biogas plants: 34
- 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: 8% Ecuador, 11% France, 81% Italy

What makes your service unique to the biogas industry?

Fluence Italy offers customized 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, according to customer needs. Fluence Italy personnel are experts in designing biomass plants and maximizing biogas production performance. We install digesters that are engineered to continue working throughout scheduled or unscheduled maintenance.
Future Biogas Ltd

Address: 10-12 Frederick Sanger Road, Guildford, Surrey, GU2 7YD, UK
Phone: +44 1483 375920
E-Mail: info@futurebiogas.com
Website: www.futurebiogas.com
Contact person: John Scott Kerr - john.scottkerr@futurebiogas.com
+44 1483 375 920

Active biogas offices or sales in: United Kingdom
Year founded: 2010
Total number of employees: 74
Number of employees in biogas department: AD: 45

Key business area: One of the leading developers of large scale anaerobic digestion plants in the UK, building both gas to grid and CHP plants, Future Biogas is also the UK’s sole distributor of Economizer SE technology.

References

- Number of biogas plants built: 11
- Total built electrical capacity of biogas plants: AD: 25 MWh
- Total serviced electrical capacity of biogas plants: AD: 25 MWh
- Geographical split of performed services: UK 100%
Franz Eisele u. Söhne GmbH u. Co. KG

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.
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.

Disclaimer: Please note that the information used on this page is taken from last year’s edition of the EBA Companies Catalogue. The information could not be updated.
Services

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

Operators of biogas plants
- Biogas plant

Manufacturers/suppliers of plant components
- Cogeneration units
- Construction and insulation materials
- Control & instrumentation systems
- Covers, films and foils
- Fans and compressors
- Feeding, metering and weighing systems
- Fermentation product processing, separation systems
- Fermenters/containers
- Gas accumulators
- Gas analysis
- Gas cleaning, gas processing
- Gas control systems
- Heat utilisation
- Safety systems, monitoring and warning systems
- Size reduction/depacking systems
- Stirring and pump systems
- Substrate preparation and processing
- Transformers, connection to electricity grid
- Washing and cleaning systems
- Waste treatment
- Working materials (oils, lubricants, etc.)

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, authorized 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

References

- Number of biogas plants built: 4
- Total built electrical capacity of biogas plants: 0,075 MWh
- Total serviced electrical capacity of biogas plants: 0,075 MWh
- Geographical split of performed services: Germany: 0,075 MW
  Ecuador: 0,000 MW (laboratory scaled digester, without energetic utilisation of the biogas)

Key business area: Our innovative plant concept enables individual prefabricated fermenter modules to be installed and connected on site. This enables the farmer / customer to achieve an individually adjustable and variable reactor size and performance for their biogas plant. The individual transportable modules are manufactured under industrial conditions, prefabricated, factory-tested and optimally dimensioned for cost-effective road transport.

What makes your service unique to the biogas industry?

A key innovation of the BIOGASTIGER® is the standardized mobile digester, which can be modularly extended by a variable connection of individual containers in order to achieve the required digester volume. Depending on the required performance and substrate situation, one to eight digester-container-modules of standardized size 15x3.5x3.5 m will be used.

Substrate
Seeds, storage, silos, seed systems, silage aid, woodchips, Fertilizers.

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

Science and research
Feedstock, mixing, pilot plants laboratory, LCA – Life Cycle Analysis, microbiology digestate, system integration, technology development, gas utilization

Others: training, conferences, marketing, networking.
N.V. Nederlandse Gasunie

Services

Planner/manufacturer of biogas plants
- Project development/planning
- Arranging permitting

Manufacturers/suppliers of plant components
- Connection to gas grid
- Construction and insulation materials
- Electrolysers
- Gas cleaning, gas processing
- Gas analysis
- Gasifiers
- Gas control systems
- Methanation (CO2 + H2)
- Natural gas vehicles
- Safety systems, monitoring and warning systems
- Syngas processing

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 the following departments:
AD: 4 / Gasification: 3 / P2G:2
Total turnover: 1,630 Mio Eur

Key business area: Under the label New Energy, Gasunie is examining the feasibility of sustainable technologies for large-scale use. Gasunie cooperates with 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 required infrastructure.

References

- Number of plants built: Gasification: 1
- Services performed in the following countries: Germany 1%, The Netherlands 99%
- 1 Biogas network with central upgrading unit.

What makes your service unique to the biogas industry?

Gasunie has a broad interest, in not only the biogas sector but also elsewhere in the sustainable energy field, such as Hydrogen, Waste- end geothermal heat, CCS, etc. and system integration.
Manufacturers/suppliers of plant components
- Gas analysis
- Control & instrumentation systems
- Gas control systems

Services/consulting
- Equipment and software for plant management

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: Simon Sheridan, s.sheridan@geotech.co.uk, +44 01926 338 111
Year founded: 1972
Total number of employees: 51
Number of employees in biogas department: 19
Total turnover: £8 million

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, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey

Key business area: Geotech is a global leader in the design and manufacture of gas analysis technology. Our established portfolio includes a range of ATEX certified portable landfill gas, biogas and biomethane upgrading analysers, renowned for reliability and robust gas analysis technology.

What makes your service unique to the biogas industry?

The equipment manufactured at Geotech is of the highest quality, adhering to a wide range of industry standards. Geotech has achieved and led the market in the following industry certifications: ISO, UKAS, CSA, UL, IECEx and MCERTS.

Geotech provides global support with a network of 60 distributors, backed up by multi-lingual product support and literature.
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 cleaning and 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, which is 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.

Biomethane produced by GM-Green Methane plants is fully compliant with UNI EN 16723 for use in transport and for injection into the natural gas network.
Manufacturers/suppliers of plant components

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

Science and research

- LCA
- Gas utilisation

Services

As a gas distribution operator, GRDF runs 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 construction and by checking gas quality before injection. Once a production site is deemed ready to start injecting, GRDF is responsible for metering and gas quality checks, as well as odorising the gas, which GRDF then injects into the gas network.

As of September 2017, 37 biomethane plants were connected to the GRDF grid.

References

- Services performed in following countries: France 100%
**Services**

Manufacturers/planners of biogas plants
- Full-system suppliers/turnkey plants
- Construction and commissioning support

Manufacturers/suppliers of plant components
- Connection to gas grid
- Fans and compressors
- Gas cleaning, gas processing
- Washing and cleaning systems

Science and research
- LCA
- Gas utilisation

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**Greenlane Biogas Europe Limited**

**Address:** Meadowhall Road, Sheffield, S9 1BT UK

**Phone:** +44 (0)114 261 2344

**Website:** www.greenlanebiogas.com

**Contact person:** Glenn Carney / email: Glenn.carney@greenlanebiogas.com / Phone: +44 (0)794 823 7657

**Year founded:** 1986

Active biogas offices or sales in the following countries:
Global operations in Europe, North America & Asia. Offices with key representation throughout Europe.

Pressure Technologies PLC is the parent company of Greenlane Biogas, listed on the London Stock Exchange

**Number of employees in biogas department:** 650 people employed within Pressure Technologies plc group.

**Total turnover:** GBP 35.85 Million

**Key business area:** Greenlane Biogas is the world’s largest biogas upgrading company – a pioneer and leader in biogas upgrading technology, with over 30 years’ experience and 100+ global installations. Greenlane Biogas was behind the first biogas installation in many countries. Greenlane Biogas offers unrivalled expertise in upgrading raw biogas from a variety of organic feedstocks into high-purity biomethane for use in natural gas pipelines and vehicle fuel.

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**References**

- Over 100 biogas upgrade plants globally.

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**What makes your service unique to the biogas industry?**

The only turnkey supplier able to provide three primary biogas upgrade technologies (membrane, PSA & water-wash), and provide a technology agnostic approach in deriving optimised biogas upgrade solutions. Substantial global experience and technical expertise enables us to analyse feedstocks and deliver optimum upgrade solutions in terms of capital investment and financial return.
IES BIOMASS s.r.l.

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. Mazzerom.mazzero@iesbiogas.it

Year founded: 2008
Total number of employees: 50
Number of employees in biogas department: AD: 40 / Waste: 10

Active biogas offices or sales in: Italy, Czech Republic, Romania, Slovenia, Serbia, Croatia, Poland, Bulgaria, Slovakia, Argentina, Brasil, Mexico, South Corea, Indonesia.

Key business area: IES BIOMASS is specialized in design, construction, management and service of biogas/biomethane plants for 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: AD: 180
- Number of performed services: 250
- Total built electrical capacity of biogas plants: AD: 220 MWh
- Total serviced electrical capacity of biogas plants: AD: 175 MWh

What makes your service unique to the biogas industry?

IES ENERGY GROUP, thanks to its expertise regarding all sort of organic substrates, provides solutions that increase efficiency and optimise energy production from renewable sources. Designing and developing “turnkey” solutions for various sectors and market areas are a daily part of our work. We succeed through close and continuous collaboration with our clients, listening to them and working with them to continuously improve our performance.

IES SERVICE and BIOGAS24 are the division dedicated to plant facility management and servicing. With a record of more than 200 designed and constructed plant facilities, to date all fully functional and with yields of the order of 100%, IES ENERGY GROUP reiterates the importance of maintaining performance, promoting an integrated management and surveillance system, capable of ensuring decisive interventions on a 24-hour basis. We also offer assistance programmes for plant facilities delivered by other manufacturers or designed with different design and process technologies.

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

Science and research
- Feedstock
- Mixing
- Microbiology digestate
- Technology development

Others
- Conferences
- Marketing
IGW stands out for their specialist knowledge of the European biogas market, and first-hand experience in management of wet and dry biogas plants.

IGW uses the experience of its technicians to help clients select the best solution to meet their individual needs. IGW helps to educate consumers and supports them in choosing the best plant possible.
Institute for Biogas, Waste Management and Energy

Address: Henßstr. 9, D-99423 Weimar, Germany
Phone: +49 3643 54489 120
E-Mail: info@biogasundenergie.de
Website: www.biogasundenergie.de
Contact person: Prof Dr Ing Frank Scholwin
scholwin@biogasundenergie.de; +49 643 54489 121
Year founded: 2012
Total number of employees: 3
Number of employees in biogas department: AD: 3
Active biogas offices or sales in the following countries: Germany
Key business area: Scientific services and analyses, expert advice, feasibility studies, appraisal reports and knowledge transfer/training to make more biogas usable in an efficient, flexible manner for the supply of power, heat and biomethane, to integrate biogas and other renewable energy sources into energy supply systems.

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
- Networking

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.
Manufacturers/suppliers of plant components
- Waste treatment
- Process aids (e.g. enzymes)

Services/consulting
- Biological support
- Nutrient auditing

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

Address: Porkkalankatu, 3 FI 00101 – Helsinki, Finland
E-Mail: water@kemira.com
Contact person: Sebastián Valencia, sebastian.valencia@kemira.com, +31 6 2926 2838.
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 MWel
- 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%
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

Science and research
- Feedstock
- Mixing
- Pilot plants laboratory

References

- Number of built plants: AD: 4
- Number of performed services: 4
- Total built electrical capacity of biogas plants: 24,852 MWh
- Total serviced electrical capacity of biogas plants: 24,852 MWh
- Geographical split of performed services: Greece 100%

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 biogas technology in Greece, and encourage investment in biogas.

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
E-Mail: c.petrocheilos@kiefer.gr
Year founded: 2014
Total number of employees: 19
Number of employees in biogas department: AD: 19
Active biogas offices or sales in the following countries: Greece

Key business area: kIEFER TEK LTD is a Greek construction company with significant expertise and considerable experience in the field of renewable energy sources. It undertakes EPC power projects on a turnkey basis, offering optimal solutions and cutting-edge technology.
Services

Services/consulting
- Biomethane trading
- Consulting
- Verification and documentation of biomethane
- Balancing group management
- Portfolio management

Planner/manufacturer of biomethane plants
- Project development/planning
- Arranging permitting

Plant operators
- Biomethane plants

Others
- Training in all concerns regarding biomethane feed-in, management, documentation on German and EU level

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: 35
Total turnover: 200 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, supplier, and service provider active all over Europe. Biomethane trade is our core competence. We deliver green gas across a range of specifications from our comprehensive portfolio of 2.5 TWh biomethane, supplying clients in the electricity, fuel, and heating sectors. Moreover, we operate 5 biogas upgrading plants and offer consultancy services spanning the entire biomethane value chain.

Number of performed services:
- Consulted on more than 20 biogas upgrading projects.
- Developed 5 own biogas upgrading plants.
- Supplying more than 150 customers with biomethane.

What makes your service unique to the biogas industry?

Founded in 2007, Landwärme is a pioneer in the biomethane market. Customers benefit from our comprehensive market and industry knowledge in Germany and Europe. With our know-how spanning the entire biomethane value chain, we are able to provide our customers with future-oriented and unique solutions.
Services

Planner/manufacturer of biogas plants
- Full-system suppliers/turnkey plants

Manufacturer/suppliers of plant components
- Connection to gas grid
- Gas cleaning, gas processing

Through our Concept Malmberg COMPACT®, we offer gas refineries the best possible 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.

- Best availability
- Most competent
- Most experienced
- Best quality

References

Geographical split of performed services:
- Sweden 38 %
- Germany 35 %
- Denmark 9 %
- Finland 4 %
- UK 9 %
- Norway 3 %
- China 1 %
- Austria 1 %

What makes your service unique to the biogas industry?

Address: 296 85 Åhus, Sweden
Phone: +46 44 780 18 00
E-Mail: info@malmberg.se
Website: www.malmberg.se
Contact person: André Carlsson Andre.carlsson@malmberg.se
+46-766-39 58 37
Year founded: 1866
Number of employees in biogas department: around 30
Total turnover: 50 Million 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/hr. Machines are equipped for the production of biomethane for vehicle fuel or gas to grid.

Services
What makes your service unique to the biogas industry?

Through our Concept Malmberg COMPACT®, we offer gas refineries the best possible 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.

- Best availability
- Most competent
- Most experienced
- Best quality
Operators of biogas plants
- Biogas plant
- Biomethane plants

Science and research
- Feedstock
- Mixing
- Microbiology digestate
- Technology development
- Gas utilisation

Key business area: Our goal is to help our customers choose future-proof energy solutions that create value for themselves and for society. We do this by offering tailor-made energy solutions, advising on and subsidising energy efficiency projects and, of course, selling gas at the market price. At the same time, we are turning the gas sector green by being the largest biogas producer in Denmark.
NexSteppe Inc.

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.
Ørsted
(formerly DONG Energy)

Services

**Planners/manufacturers of biogas plants**
- Full-system suppliers/turnkey plants

**Operators of biogas plants**
- Biogas plant
- Biomethane plant

**Others**
- Conferences
- Networking

Address: Nesa Alle 1
Phone: +45 995 511 11
Website: http://www.orsted.com
Contact person: Simon Chignell - SIMCH@orsted.dk +45 9955 8783
Year founded: 2006
Total number of employees: 5,600

**Active biogas offices or sales in:** Denmark, UK

**Key business area:** Ørsted is a renewable energy company that takes tangible action to create a world that runs entirely on green energy. Formerly DONG Energy, the recently rebranded company is undertaking a truly green transformation: already divested of its oil and gas production business, the company is also committed to phasing out coal from its power stations worldwide. Headquartered in Denmark, Ørsted develops, constructs and operates offshore wind farms, bioenergy plants and innovative waste-to-energy solutions, and provides smart energy products for its customers. Our first Renescience plant, an enzyme-based waste refinery process receiving mixed solid waste, separates the organics for anaerobic digestion and cleans the recyclables. As part of our green energy goal, we are developing biogas solutions for large industry partners such as Novo Nordisk and Novozymes.
PALES MUHENDISLIK YATIRIMLARI LTD

Services

Planer/manufacturer of biogas plants

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

Operators of biogas plants

- Biogas plant

Manufacturers/suppliers of plant components

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

Services / consulting

- Consulting
- Biomass logistics
- Substrate analysis/fermentation tests
- Fermentation product analysis

Substrate

- Storage, silos
- Silage aid
- Fertilisers

Others

- Training

References

- Number of built biogas plants: 2
- Number of performed services: 15
- Total built electrical capacity of biogas plants: 8 MWh
- Total serviced electrical capacity of biogas plants: 25 MWh
- Geographical split of performed services: Turkey %85 - Bulgaria %10 - Greece %5

What makes your service unique to the biogas industry?

From development to operation, we provide full coverage for all the services that a biogas plant needs. We recycle all the valuable ingredients within the digestate by our wastewater treatment and recycling technology and at the and generate valuable profit not only from the dry fermented product (fertilizer) but also the liquid fermented product.
Parker Hannifin Manufacturing Limited

Services

Planners/manufacturers of biogas plants:
- Project development/planning
- Construction and commissioning support

Manufacturers /suppliers of plant components
- Gas cleaning, gas processing

Address: Dukesway, Team Valley Trading Estate, Gateshead, Tyne & Wear, NE11 0PZ, UK
Phone: +44 (0)191 402 9000 / Direct: +44 1243 584034
E-Mail: pptek@parker.com
Website: www.parker.com/gsfe
Contact person: Keith Stocker

Number of employees in biogas department: AD: 8

Active biogas offices or sales in the following countries: UK, Italy, Netherlands.

Key business area: Parker Hannifin offers biogas treatment for landfill, sewage and AD applications, including dehumidification, filters and siloxane removal systems.

References

Number of built plants by the company: AD: 110

Geographical split of performed services:
80% UK - 15% South America - 5% Europe and Thailand

What makes your service unique to the biogas industry?

Parker Hannifin can provide a gas bag / extraction point to engine gas treatment system including cooler/chiller systems for dehumidification, knock out pots for water collection, particle and coalescing filters, and a regenerative siloxane removal system.
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
• Heat utilisation
• Fans and compressors

Science and research
• Technology development
• Gas utilisation

Others
• Training

What makes your service unique to the biogas industry?

We offer safe and certified biogas upgrading technologies with cryogenic CO₂ recovery. This eliminates any methane slip, and optionally provides liquid CO₂ as second value stream for use in a variety of applications. Supplying both membrane and amine based solutions, we can advise you to choose the optimum technology for your specific purpose, supported by a variety of tailored service solutions.

Address: Marinus Dammeweg 30, 5928 PW Venlo, The Netherlands
Phone: +31 77 323 23 00
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Website: Biogas.Pentair.com
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 (Pentair Haffmans)
Total turnover: $5 Billion
Total number of employees: Pentair Ltd. 19,000; Pentair division Sustainable Gas Solutions; 350
Active biogas offices or sales in: worldwide
Key business area: Global leading partner in biogas upgrading and CO₂ recovery technologies and service.
Services

Manufacturer / suppliers of plant components
- Fermentation product processing, separation systems.
- Feeding, metering and weighing systems
- Stirring and pump systems
- Substrate preparation and processing

Science and research
- Mixing

References

- Total serviced electrical capacity of plants:
  AD: 120 MWh - Gasification: 50 MWh
- Geographical split of performed services: Germany 65%, France 8%, UK 8%, Italy 5%, Belgium 15%, East-Europe 3%.

What makes your service unique to the biogas industry?

We are committed to providing highest equipment reliability and long service lives by using top-quality materials only. Maintenance and replacement of our stirrers can be done without draining the digester or post digester, which reduces production down time and thus operating costs.
Renewable Energy Technology International AB (Renewtec AB)

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
Phone: +46 (0)723 182 582

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

References

- Number of performed services: 53
- Geographical split of performed services: Sweden 65%, Baltic region 15%, Italy 10%, Spain 5%, Germany, India, Iceland, Switzerland.

What makes your service unique to the biogas industry?

Vast experience of R&D activities and project management, an outstanding network of leading renewable energy experts and deep knowledge in renewable energy gas technology in general and in small scale gasification and methanation in particular.
RISE Research Institutes of Sweden - previously SP

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.

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/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

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.
Sattler Ceno TOP-TEX GmbH

Address: Sattlerstrasse 45, 8077 Gössendorf, Austria
Phone: +43 3382 733 0
E-Mail: biogas@sattler-global.com
Website: www.sattler-ctopeptex.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 over 7,000
- 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 37 years ago, with the invention of Double Membrane Gas Storage. More than 1,500 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.
Schaumann BioEnergy GmbH

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: Process additives, biological support and process optimisation, analytics, feasibility studies and conceptual design.

Services

Planners / manufacturers of biogas plants
• Project development/planning
Plant operators
• Biogas plant
Substrate
• Silage aid
Services / consulting
• Consulting
• Substrate analysis/fermentation tests
• Fermentation product analysis
• Biological support
• Nutrient auditing
• Safety assessors
• Approved monitoring centres, authorized persons
Science and research
• Feedstock
• Pilot plants laboratory
• LCA
Others
• Training

References

• Number of built biogas plants: 150
• Number of performed services: approx. 3,000 customers
• Total built capacity of biogas plants: 40 MWh
• Total serviced capacity of biogas plants: AD: 1,300 MWh
• Services performed in the following countries: Germany, Italy, Austria, UK, The Netherlands, Switzerland, Slovakia, Czech Republic, France, Baltic states, Switzerland, South America, Canada/USA, Brazil, Argentina.

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.
Manufacturer/supplier of plant components
- Stirring and pump systems

Science and research
- Mixing

Out of our very broad portfolio, we compile individual solutions for each mixing task, and aim to reach the best energy efficiency for each customer’s specific requirements.

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

References
- Number of biogas plants equipped: > 1200
- Services performed / products delivered to the following countries: in the following countries: Germany, Austria, Netherlands, Italy, France, Croatia, Czech Republic, UK, Rumania, Switzerland, Slovakia, Serbia, Spain, Poland, Luxembourg, Hungary, USA, Japan, Urkraine, Uruguay, Brazil and others.

What makes your service unique to the biogas industry?
Out of our very broad portfolio, we compile individual solutions for each mixing task, and aim to reach the best energy efficiency for each customer’s specific requirements.

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

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.

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
- Pilot plants laboratory
- LCA
- System integration
- Technology development
- Gas utilisation

Others
- Training
- Conferences
- Marketing
- Networking

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.

Other fields of expertise that are closely linked to our biogas activities are: carbon capture and utilization, CO₂ conversion, power to X (electrochemistry), energy conversion, heat storage, and hydrogen storage.

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
We have developed highly efficient membrane-based biogas upgrading technologies, biogas pre-treatment technologies and power-to-gas technologies. We offer licenses for our patented technologies, consulting for engineering companies, and biogas upgrading plant operators.
University of South Wales, Wales Centre of Excellence for Anaerobic Digestion

Address: Pontypridd
Phone: 00 44 1443 654130
Websites:
http://www.southwales.ac.uk/
http://www.walesadcentre.org.uk/
Contact person: Prof. Sandra Esteves
sandra.esteves@southwales.ac.uk
Year founded: 1913
Total number of employees: over 3,000
Number of employees in biogas department: AD: 35
Active biogas offices or sales in: Higher Education Institution/ Research Centre

Key business area: The Wales Centre of Excellence for Anaerobic Digestion provides a technology development and deployment support platform that delivers industry-focused R&D, feasibility/proof of concept evaluations, biochemical characterisations, system design, monitoring and diagnostics, training and knowledge transfer. The Centre aims to facilitate the development of a robust AD infrastructure, to foster innovative solutions that maximise environmental/economic benefits, and to encourage long term growth of the anaerobic digestion and anaerobic biorefining industry.

References
- Number of performed services by your company: In the last 10 years the Centre has provided R&D and technical services to over 150 companies.
- Services performed in the following countries: Over 90% in the UK, the remaining in EU and world.

What makes your service unique to the biogas industry?

The Centre delivers independent R&D and technical services within the biogas industry. Research into anaerobic digestion at the University started in the 1970’s and continues at full strength; considerable know-how, reputation and facilities have therefore been developed:
(http://www.walesadcentre.org.uk/Walkthrough/)

The team works at lab, pilot and at full scale and most of the work is carried out in collaboration with industry. More recently the team has developed the AERIOGEN® process for high rate biomethanation, a technology which the team aims to commercialise to address renewable energy storage, convert industrial waste gases to low carbon fuels and increase methane production at AD plants. Other novel products include process monitoring and optimisation tools, robust anaerobic microbial cultures, and technologies for high rate volatile fatty acid production and recovery.
University of Campinas (UNICAMP)

Services

Science & Research
- Gas utilisation
- Sustainability: environmental aspects
- Sustainability: socio-economical aspects
- Biofuels and engines
- Biorefinery and green chemistry
- Bioelectricity
- Agricultural engineering for bioenergy
- Phytotechnology for bioenergy
- Genetic improvement of plants

Services / consulting
- Fermentation product analysis
- Consulting

Others
- Training of human resources
- Research projects

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Phone: +55(19) 3521-7592
E-Mail: bioenerg@fea.unicamp.br
Website: sites.usp.br/phdbioenergy/
Contact person: Prof. Dr. Andreas Karoly Gombert
+55-19-3521-4031 gombert@fea.unicamp.br

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

What makes your service unique to the biogas industry?

The Ph.D. Program in Bioenergy USP UNICAMP UNESP is a programme of institutional graduate studies focused on the generation of knowledge and is intended to train participants to a level of international excellence. Doctors trained under the programme will be able to face international challenges concerning the replacement of fossil fuels with fuels of biomass origin and will have expertise in both the production and the consumption of these fuels. They will be able to lead research projects in the area of bioenergy in higher education institutions, lead technological advance in industries essential to the development of the country, formulate public policies for the growth of bioenergy in the Brazilian energy matrix, and actively participate in the international integration of Brazil in the management of global energy issues.
Manufacturers/suppliers of plant components

- Gas analysis

Science & Research

- Gas utilisation

Services / consulting

- Fermentation product analysis
- Quality assurance for fermentation products

Others

- Training
- Conferences

What makes your service unique to the biogas industry?

VSL is a leading national metrology institute providing services relating to the conformity assessment of biomethane and upgraded biogas. It provides certified reference materials, proficiency testing, and training and consultancy services for assessing the quality of biomethane in relation to specification EN 16723. It is coordinating a project entitled „Metrology for Biomethane“ in the European Programme for Innovation and Research, aiming at further advancing practice in biomethane conformity assessment and the development of standardised test methods in support of specification EN 16723.
Applying Yara BPO leads to a changed microbial community to the benefit of methane bacteria. The methane yield increases while the required substrate amount decreases. H2S formation declines because BPO minimizes the activity of sulfate reducing bacteria.

The amplified microbial diversity enables a more robust and balanced fermenter operation.
Xylem Water Solutions

Manufacturer/supplier of plant components
- Substrate preparation and processing
- Stirring and pump systems
- Waste treatment

Services / consulting
- Consulting
- Substrate analysis/fermentation tests

Science & Research
- Feedstock
- Mixing
- Technology development

Others
- Training

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E-Mail: info@xyleminc.com
Website: www.xyleminc.com
Contact person: Maja Rosiak
maja.rosiak@xyleminc.com, +46 707 1660 92

Year founded: Flygt was absorbed by the ITT corporation in 1968 and is now incorporated under Xylem Water Solutions, following the Xylem 'spin' from ITT in November 2011.

Total number of employees: 12,900 worldwide
Total turnover: $3.8 billion for the full year 2016

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: Xylem provides 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 6,000 biogas plants worldwide with mixers and pumps.

Xylem guarantees an outstanding service for our customers by providing reliable and energy efficient mixing and pumping solutions supported by deep application knowledge.
More information on EBA available here: http://european-biogas.eu/
Associated Members of 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.
EBA membership advantages

Focus on Key Policies in Brussels and beyond

**EBA is the voice of biogas and biomethane** in Brussels supporting the interests of your organisation. Our Association works in close cooperation with EU institutions and actively contributes to the legal framework of biogas, biomethane and gasification.

**EBA has an extended network across Europe.** Our 90 members are national biogas associations, international companies, research institutes as well as private persons.

**EU projects** - international projects help to develop the biogas sector. EBA is partner in different EU projects (e.g. BIOSURF and Biogas Action). As a company member you can be involved in our research activities and cooperate with EBA in removing existing barriers for biogas and biomethane.

Advisory Councils

The Company Advisory Council (CAC) and Scientific Advisory Council (SAC) give an opportunity to the industry and science to reflect their views towards the European Union Institutions by strengthening EBA’s voice in policy-making. Some of the special activities of the CAC and SAC to increase your company’s visibility in Europe are:

**Company advisory council:**

- Visibility of your company and services in the Companies’ Catalogue
- Broadcasting your successful projects in Success Stories
- Creation and visibility in brochures on biogas specific topics
- Networking events
- Working groups on specific topics, such as Biogas Public Image and Biomethane in Transport.

**Scientific advisory council:**

- Provide scientific evidence to EBA position papers and public communication
- Advise on programme of 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.

Interested in joining EBA?
Contact us at: info@european-biogas.eu
Become a member and make your company visible in the catalogue!

Over 90 members from 25 countries