When brought together, southwest Sweden can provide you with a unique offer. Not only do we have extensive experience and profound expertise within the field of biogas, but we also possess a deep commitment to the continued development of the area.

Why southwest Sweden?
In Sweden, political decisions and incentives as well as national goals have been significant for the development of the biogas field. They have all raised awareness and increased the public’s understanding of the environmental benefits of gas.

Parallel to this, southwest Sweden has worked hard to gain an in-depth knowledge of the biogas process as a whole. This means that we work with the entire biogas chain – from the production, upgrading, return of bio fertilizer to nature, distribution and the building of fuel stations. Naturally, this profound know-how also implies that we have a wide range of highly competent companies within the field. Through our extensive experience, Ecoex, Sustainable Business Hub, Biogas Väst, Biogas Syd and Region Halland have all developed a broad network and good relations with these skilled companies, and we are more than willing to get you in contact with them.

What can we do for you?
Our unique offer includes study tours that are arranged specifically to your individual needs. With a wide range of diverse demonstrations plants, you have the possibility to see how different biogas systems work as a whole. We also set you up with the various subcontractors of these plants. These are the companies who can meet your specific needs and demands, and deliver both cutting-edge technology as well as the competence to go with it. Those kinds of matchmaking-events have, historically, proven to be highly successful for both parties.
Demonstration Plants in West Sweden

Environmental impact

» Sobacken waste treatment plant receives about 25,000 tons of household waste every year.
» 10,000 tons of biological waste from other sources are also received every year.
» Some 1.8 million normal cubic meters (Nm³) of biogas are produced annually. This is equivalent to 1.8 million liters of diesel fuel.
» When the city’s buses run on biogas, both emissions and noise are reduced in the inner city area.
» The plant produces some 2,500 tons of nutrient-rich compost a year.
» From 2009, landfill gas will also be used for heating at Sobacken.

Waste and biogas production at the Sobacken waste treatment plant

The treatment process

The inhabitants of Borås sort their food waste into black bags and incinerable waste into white bags. At Sobacken, they are sorted optically; the photo-cells in a mechanical sorter sense what colour a bag is and ensures that each bag goes to the right place.

White bags are crushed and used as fuel at Ryaverket, a combined power and heating plant (CHP) in Borås. When the waste is combusted in the CHP, it heats water that is then pumped into the district heating network.

Black bags are opened automatically. The food waste is transferred to a 3,000 cubic meter tank where it is digested. The temperature in the tank is a constant 55 degrees – the optimum conditions for the bacteria – gas production, therefore, very efficient. It takes about 30 days for the bacteria in the digester to break the organic waste down and produce raw gas.

Black bags are tumbled again to ensure that no waste, or rather energy, is lost. The empty bags are burnt at the Ryaverken cogeneration plant together with the white bags.

It is not only households’ food waste that is digested, however, to make biogas. About half the waste that is digested comes from industry. In Borås, waste comes from a local meat packing plant, a local fruit juice producer, and the city’s restaurants, shops, and supermarkets.

The raw biogas is transported in pipelines to Gällsöda where it is combined with the gas from the municipality’s wastewater treatment plant, which also has a digestion process for its sewage slurry. Three quarters of the gas produced in Borås today comes from waste and the remaining quarter from sewage slurry.

The raw gas is transported by pipeline to an upgrading plant, where the carbon dioxide is removed. The raw gas consists of 65% methane and 35% carbon dioxide but, after cleaning, it consists of almost 99% methane.

The gas is then transported, once again by pipeline, to the filling stations operated by Borås Energi och Miljö. A filling station that can accommodate 43 buses and a filling station for private motorists in the city center will open early next year.

In Borås, today 29 buses, 9 garbage trucks and some hundred private cars run on biogas. From 2010, Borås municipal transport is planning to run all its city buses on biogas. The residue that remains after digestion is called biofertilizer. This is mixed with garden waste from the recycling plants and manure, among other places from Borås Zoo. The resulting compost is then sold to the municipality’s inhabitants.

The biogas is upgraded to biomethane and transported in the local grid to the filling station, where the town buses and private cars refuel. Farm-scale plants have the opportunity to deliver raw biogas to the upgrading unit.

From 2009, landfill gas will also be used for heating at Sobacken.

Contact information:

Municipality of Falköping
Address: Sigtunaavägen, SE-521 81 Falköping, Sweden
Phone: +46 (0)515 88 52 40 +46 (0)702 05 11 52
Web: www.falkoping.se
E-mail: ida.helander@falkoping.se
Business: The Falköping model – a local biogas system for sustainable local production and consumption in collaboration between town and countryside. In Falköping, the biogas plant produces biogas from sewage sludge and organic household waste.

The biogas is upgraded to biomethane and transported in the local grid to the filling station, where the town buses and private cars refuel. Farm-scale plants have the opportunity to deliver raw biogas to the upgrading unit.

Gryaab – for a better marine environment
Address: Norra Fågelrovägen 3, SE-418 30 Göteborg, Sweden
Phone: +46 (0)31 64 73 00
Web: www.gryaab.se
E-mail: info@gryaab.se
Business: Gryaab treats the wastewater from the Gothenburg region at the wastewater treatment plant Ryverket. The plant serves an estimated equivalent of 832,003 people (industries included).

Contact information:

Borås Energi och Miljö AB - Sobacken
Address: Box 1713, SE-501 17 Borås, Sweden
Phone: +46 (0)33 35 81 00
Fax: +46 (0)33 35 71 61
Web: www.borasenergimiljo.se
E-mail: kund@borasenergimiljo.se
Business: Borås Energi och Miljö operates the waste management in Borås and makes use of the flows of energy in the community by transforming e.g. waste into biogas, district heating and district cooling for customers. Our customers are offered waste and energy services. The company is an accredited inspection body for energy declarations.

Contact information:

The Agricultural College of Sötåsen
Address: Naturbruksgymnasiet Sötåsen SE–545 91 Töreboda, Sweden
Phone: +46 (0)506-16804
Web: http://www.vgregion.se/sv/Naturbruk/
Business: The Agricultural College of Sötåsen
Contact information:

Environmental impact

» Sobacken waste treatment plant receives about 25,000 tons of household waste every year.
» 10,000 tons of biological waste from other sources are also received every year.
» Some 1.8 million normal cubic meters (Nm³) of biogas are produced annually. This is equivalent to 1.8 million liters of diesel fuel.
» When the city’s buses run on biogas, both emissions and noise are reduced in the inner city area.
» The plant produces some 2,500 tons of nutrient-rich compost a year.
» From 2009, landfill gas will also be used for heating at Sobacken.
Plönninge Biogas is a demonstration facility that was built in 2004 for the use of small-scale biogas production in Halland. The demonstration facility is a part of the innovation center Bioenergicentrum Halland within the region of Halland. The purpose of this facility is to develop business models, technologies and processes in the area of biofuels, such as biogases for various applications. An additional purpose is to disseminate knowledge about this area.

Technologies and Processes
Together, different participants, companies, organizations and universities meet and develop technologies and processes within the innovation center. These developments can be small-scale improvements to optimize the biogas process for vehicles, small-scale electricity production using Stirling engines, as well as test-beds for various feedstocks. The objective is to valorize technologies for commercialization in future business and markets. The feedstock used is currently composed of barn cow-dung from Plönninge Naturbruksgymnasium as well as vegetable-based waste from the food industry (e.g. from stores and manufacturing centers). The feedstock is currently fed into a 300 m³ digester. The gases produced from the digester are currently used in various ways. The majority of the gas is used for vehicles, while the remaining biogas is used for electricity production and the heating of warm water at Plönninge Naturbruksgymnasium. The biogas demonstration facility currently produces approximately 300,000 kWh/year. The facility also converts incoming feedstock to bio organic manure. This bio organic manure, which contains large quantities of easily accessible nitrogen, is used to fertilize farm lands.

Business Model
Within the Bioenergicentrum, various business models are being formulated in collaboration with the agricultural community, clients and consultants. These business models are targeted towards small-scale biofuel production as well as their coupling to large-scale energy usage.

Demonstration Plants in West Sweden

Plönninge Biogas - Bioenergicentrum Halland, Region Halland
Address: Plönningegymnas, SE-31040 Harplinge, Sweden
Phone: +46 (0)35 179 800
Web: www.regionhalland.se
E-mail: biogas@regionhalland.se
Business: Plönninge Biogas is a demonstration plant for farm based biogas production.
Products: Farm based biogas production with small scale upgrading to fuel gas.

Laholms Biogas AB
Address: Box 63, SE-312 21 Laholm, Sweden
Phone: +46 (0)430 480 90
Web: www.laholmsbiogas.se
E-mail: info@laholmsbiogas.se
Business: Laholms Biogas AB was established in 1992 and is the first commercial biogas plant in Laholm where the biogas is produced from farmers’ cow manure, pig manure and silage as well as waste from the food industry. The production is 3 million m³ biogas and 50,000 m³ biofertilizer. In 2003, the first equipment to upgrade the biogas was installed and injected in the natural gas grid. In 2007, the second upgrading equipment was extended.
Products: Upgrading of biogas and injection into the natural gas grid.

Falkenbergs Biogas
Address: Gödastorp 212, SE-311 97 Falkenberg, Sweden
Phone: +46 (0)757-27 41 31
Web: www.falkenbergsbiogas.se
E-mail: jonas.simonsson@falkenbergsbiogas.se
Business: Falkenbergs Biogas AB is owned by E.on, Municipality of Falkenberg and Gekås Ullared. The capacity is 37 GWh biogas for fuel per year, which corresponds to ca 4,1 million liter gasoline. 120 000 ton biomass is used for the production of biogas. The biomass is coming from farmers' cow manure, pig manure, silage and food industry.
Products: Upgrading of biogas and injection into the natural gas grid.
The biogas production plant in Helsingborg is one of Sweden’s largest co-digestion facilities; over 60,000 tons of waste was received and processed in 2008. The incoming substrate consists, for example, of waste from slaughter-houses, rest products from the food industry, sorted organic waste from households and enterprises and manure from agriculture. A pre-treatment facility has been installed, in which package and plastic bags can be separated from the digestible waste. Additionally, the waste is grinded and mixed with water to form a slurry that is pumped into a receptor tank where those materials that do not require pre-treatment are mixed.

Hazardous substances such as pathogenic microorganisms may occur in the waste and are removed when the slurry is hygienized and heated to 70 °C, for one hour. The energy required for the hygienization process is supplied by a wood chip fired boiler that also provides other buildings at the waste treatment facility with heat. Subsequent to the hygienization, the digestion takes place under anaerobic conditions. The process is carried out in a reactor at 37°C and takes roughly 4 weeks. The produced biogas then consists of approximately 75% methane and 25% carbon dioxide. In order to use the biogas as vehicle fuel, the carbon dioxide has to be removed, along with small amounts of other substances such as water and sulfuric oxides. There are two upgrading plants at NSR; one that uses the Pressure Swing Adsorption (PSA) technique and one that uses the water scrubbing technique. The upgraded biogas contains 98% methane and has the quality of vehicle gas. There is a filling station at the facility and there is a local gas grid to supply local and regional buses with biogas. The rest product from the digestion, the sludge, contains large amounts of nutritious substances such as nitrogen and phosphorus and is suitable for use as biofertilizer. There is a pipeline network from NSR that transports the sludge from the facility to farmers in the surrounding area. 20,000 m$^3$ of biofertilizer is pumped through the system each year, which saves 22,000 transport km and reduces carbon dioxide emissions by approximately 40 tons per year.

**Biogas production at NSR, Helsingborg**

**Demonstration Plants in South Sweden**

**Municipality of Kristianstad**
Address: SE-291 80 Kristianstad, Sweden  
Phone: +46 044-13 50 00  
Web: www.kristianstad.se/biogas  
E-mail: info@kristianstad.se  
**Business:** The biogas is produced at the Karpalunds biogas plant and upgraded at Allöverket. At Allöverket, heat and power is also produced from raw biogas. Kristianstad has a ca. 10 km biogas grid and in 1999 the first public filling station for biogas fuel was opened. Skånetrafik opened a filling station in 2002 for buses and in 2004 another public filling station was opened.  
**Products:** Upgrading of biogas to vehicle fuel.

**NSR AB, Helsingborg**
Address: Hjortshögsvägen 1, SE-251 89 Helsingborg, Sweden  
Phone: +46 (0)42 400 13 00  
Web: www.nsr.se | E-mail: nsr@nsr.se  
**Business:** Biogas is the fuel of the moment. It can bring major environmental benefits in the form of reduced carbon dioxide emissions, and the demand for biogas in the Kristianstad area is great. NSR received over 60,000 tons of waste from the food industry, households and manure from agriculture. From this biomass, 2.7 million Nm$^3$ of biogas was produced and 20 000 m$^3$ biofertilizer was delivered to farmers in the surrounding area.  
**Products:** Upgrading of biogas to vehicle fuel.
BioWaz AB
Address: Lilla Dalsgård
SE–310 58 Vessigebro, Sweden
Phone: +46 (0)703 59 91 95
Fax: +46 (0)34 62 00 77
Web: www.biowaz.com
E-mail: stellan@biowaz.com
Business: Profitable farmed based biogas plant.
Products: Complete farm based biogas plant with a reactor, process control and other utili-
ties.

Götene Gårdsgas AB
Address: Portgatan 3
SE–633 42 Eskilstuna, Sweden
Phone: +46 (0)70 574 99 40
Fax: +46 (0)16 550 00 99
Web: www.gardsgas.se
E-mail: adam@gardsgas.se
Business: Götene Gårdsgas offers complete small scale plants for on farm biogas produc-
tion. Durable and efficient design, for farmers by farmers. Digesters 200-1000m³ with a unique floating roof.
Products: CHP units from 15 kW, gas heaters, gas storage units, digesters, pumps and mixers.

Processkontroll AB, Tankstationsbyggarna
Address: Box 2088
SE–444 02 Stora Höga, Sweden
Phone: +46 (0)303 79 81 00
Web: www.tankstationsbyggarna.se
E-mail: See website
Business: Tankstationsbyggarna Processkontroll designs, manufactures, builds and maintains various types of gas refueling stations and gas transport units for natural gas and biogas (CNG).

PURaC Läckeby Water Group
Address: Box 1146
SE–221 05 Lund, Sweden
Phone: +46 (0)46 10 14 50
Fax: +46 (0)40 10 33 50
Web: www.purac.se
E-mail: pt@purac.se
Business: Purac is a part of the Swedish Läckeby Water Group and the leading Swedish technology supplier for biogasplants. Purac has vast experience within technologies for biogas including:
• Pre-treatment of solid organic material
• Hygienization
• Mesophilic and thermophilic anaerobic digestion
• Biogas upgrading with the LP-Cooab technology
• Rejet water treatment including the DeAmmon process

Operator, planner and adviser

AnoxKaldnes AB
Address: Klosterångsvägen 11A,
SE–226 47 Lund, Sweden
Phone: +46 (0)46 18 21 50
Fax: +46 (0)46 13 32 01
Web: www.anoxkaldnes.com
Contact person: Lars-Erik Olsson
E-mail: leo@anoxkaldnes.com
Business: For customers in the biogas area we offer engineering, consultant services, pilot- and laboratory tests and the optimization of existing biogas plants. We also work with research and development. We are a member of the Veolia group and work worldwide.
Products: Engineering of new and rebuilt biogas plants, Pilot-and laboratory tests and the Optimization of existing plants.

BioMii AB
Address: Trollebergsvägen 1,
SE–222 29 Lund, Sweden
Phone: +46 (0)46 10 14 50
Fax: +46 (0)40 10 33 50
Web: www.biomii.se
E-mail: biomii@biomii.se
Business: As one of the oldest biogas consult-
ants in Sweden (since 1979) we offer know-how for the entire biogas business; planning, con-
struction, handling of waste, prestudies, econo-
my and usage of biogas.

COWI AB (former FB Engineering)
Address: Box 12076,
SE–402 41 Göteborg, Sweden
Phone: +46 (0)10 850 10 00
Fax: +46 (0)10 850 11 44
Web: www.cowi.se (www.cowi.se)
E-mail: info@cowi.se (info@cowi.se)
Business: FB (Cowi) is an engineering company that provides for every part of a project. We perform feasibility studies and build complete plants based on EPCM contracts.
Products: Process & Project knowledge within Bioenergy, Biofuel, CHP & Wind.

Detox Biogas AB
Address: Artlövsvägen 9,
SE–211 24 Malmö, Sweden
Phone: +46 (0)40 18 35 20
Fax: +46 (0)40 18 35 92
Web: www.detox.se
E-mail: info@detox.se
Business: Detox Biogas AB is a young and highly expansive knowledge company with in-house developed technology solutions and products. Our scope of business entails the development and launching of services and products within the areas of waste management and renewable energy.
Products: Prestudies, Laboratory studies, Biogas optimization, Process Development and R&D.

Ecoplan AB
Address: Jämtorgsgatan 12-14,
SE–413 01 Göteborg, Sweden
Phone: +46 (0)31 33 99 330
Web: www.ecoplan.se
E-mail: staffan.johannesson@ecoplan.se
Business: Consulting within the environment, ethics and sustainable development strategies.
Products: Assessment of products and services. Public purchasing, Communication and Market-
ing, Project leadership for producers-distribut-
ers- manufacturers-purchasers in promoting methane for vehicles.
Göteborg Energi AB
Address: Box 53, SE–401 20 Göteborg, Sweden
Phone: +46 (0)31 62 60 00
Fax: +46 (0)31 15 25 01
Web: www.goteborgenergi.se
E-mail: see Website

Business: Our aim is to create opportunities for the production of biogas, especially in cooperation with industry and agriculture. Our current production of biogas is sold primarily as a vehicle fuel. Since biogas can be delivered into the existing natural gas grid, the infrastructure is already in place in Göteborg.

Products: Our product areas are district heating, ready heat, energy services, gas, cooling, data and telecommunications, electricity networks and electricity production.

Hushållningssällskapet Väst
Address: Box 17, SE–462 21 Vänersborg, Sweden
Phone: +46 (0)352 15 25 01
Mobile: +46 (0)70 444 20 01
Web: www.hush.se/opn
E-mail: peter.eriksson@hush.se

Business: Contributions in feasibility studies and projects, where biogas production is primarily carried out from farming organic waste. This is carried out either by a project manager or an investigating consultant.

KanEnergi Sweden AB
Address: Box 63, SE–532 21 Skara, Sweden
Phone: +46 (0)511 34 76 664
Fax: +46 (0)511 200 65
Web: www.kanenergi.se
E-mail: info@kanenergi.se

Business: Scandinavian consultancy offering strategy and analysis, management and advice on market, technology and business development in the field of renewable energy.

Products: Feasibility studies, market analyses and strategy development, project management and implementation. Our competence and broad experience make us a strong center of expertise.

Grontmij
Phone: +46 (0)10 480 12 77
Web: www.grontmij.se
E-mail: info@grontmij.se

Overall Concept for biogas
Grontmij can provide you with broad support through your entire biogas venture. We are experts in commodities logistics, pre-treatment, process engineering, gas upgrading, distribution and handling of final products, and operating efficiency.

From feasibility study to commissioning
Grontmij has solid experience throughout the entire chain from feasibility studies to commissioning and operation of biogas plants. For example, we perform:

- Feasibility Studies
- Permit applications
- Design & engineering
- Procurement
- Project Management
- Optimization of existing plants

Ramböll Sverige AB
Address: Box 5343, SE–402 27 Göteborg, Sweden
Phone: +46 (0)31 61 56 00
Fax: +46 (0)10 61 56 00
Web: www.ramboll.se
E-mail: infosverige@ramboll.se

Business: Ramböll offers a qualified consultancy service within the energy sector. We create added value for our clients with competitive and reliable solutions, which contribute to better resource optimization and a good environment.

Products: Our services comprise all the phases within biogas projects, that is, from planning and feasibility studies to design, operation, maintenance and administration.

We have specialists that have expertise within anaerobic digestion, upgrading of biogas and tank stations.

SWECo
Address: Box 2203, SE–403 14 Göteborg, Sweden
Phone: +46 (0)31 62 75 00
Web: www.sweco.se
E-mail: ola.hansson@sweco.se

Business: Sweco offers consulting in complex decision processes that concern the establishment of tomorrow's biogas systems.

Products: Workshops, basis for decisions and the design of biogas systems.

TecnoFarm
Address: Smedjevägen 9, SE–533 73 Källby, Sweden
Phone: +46 (0)76 816 41 63
Fax: +46 (0)510 54 18 66
Web: www.tecnofarm.se
E-mail: info@tecnofarm.se

Business: Consulting within Agricultural Engineering and Cleantech. With specialization in agricultural biogas production.

Products: Feasibility studies, technical evaluations, production optimization, business development and project management.

Vattenfall Power Consultant AB
Address: PO Box 475, SE–401 27 Göteborg, Sweden
Phone: +46 (0)709 383 803
Fax: +46 (0)31 62 97 50
Web: www.vattenfall.com/powerconsultant
E-mail: maria.hammar@vattenfall.com

Business: Vattenfall Power Consultant AB offers a broad range of consultancy services within the energy sector including the environment and biogas.

Products: Consultancy services within the biogas area, such as:

- Feasibility studies and pre-studies of biogas production ranging from local production at farms to regional solutions for waste management.
- Legal compliance audits of biogas production facilities.
- Support in the construction of biogas production facilities, e.g. design, procurement and project management.
**ÅF Consult AB**

**Address:** Hallenborgs gata 1A
SE–211 19 Malmö, Sweden

**Phone:** +46 (0)10 505 00 00
**Fax:** +46 (0)40 13 90 38

**Web:** www.afconsult.com
**E-mail:** info@afconsult.com

**Business:** The ÅF Group is a leader in technical consulting, with expertise founded on more than a century of experience.

**Products:** In the Biogas sector we offer Feasibility and Environmental Impact Studies, Design, Project Management, Commissioning, Optimization and Troubleshooting. Furthermore, we are certified for third-party Testing and Inspection work.

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**Tyréns AB**

**Address:** Lilla Badhusgatan 4
SE–411 21 Göteborg, Sweden

**Phone:** +46 (0)31 60 63 00
**Fax:** +46 (0)31 60 63 01

**Web:** www.tyrens.se
**E-mail:** anders.fermheden@tyrens.se

**Business:** Technical Consultants with experience in biogas projects Worldwide. Plants for small communities and larger cities.

**Products:** Project Management, Design, process optimization, and start-up assistance.

Tyréns is one of Sweden’s leading consulting companies in the urban development sector. Our goal is to create better communities for people.

In the biogas sector we provide help with:
- Building Networks – creating networks and co-operation.
- Permit applications – documents and applications throughout the permit process.
- Environmental Impact Assessment (EIA)
- Risk Analysis and Explosion Protection Document – in compliance with all the legal demands.
- Digestion of different fractions – advice and process dimensioning depending on the type of waste.
- Varying gas exchange – we can optimize for each unique plant.
- Reject water treatment – assess the individual plant's prerequisites.
- Gas management – gas turbine, upgrading etc.
- Projecting – from analysis stadium to contractor documents.
- Construction/project management – to make sure that the installations, processes etc. turn out as planned.
- Feature and operating descriptions – for operating personnel.
- Process calculations – for the completed plant.
- Purchaser support – before contractor surveys and official inspections.
- Safety adviser for the transport of dangerous goods – when biogas is transported on the road and railway.

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**WSP Sverige AB**

**Address (Head office):** Arenavägen 7,
SE–121 88 Stockholm-Globen, Sweden

**Phone:** +46 (0)8 688 60 00
**Fax:** +46 (0)8 688 69 99

**Address:** Box 714
SE-251 07, Helsingborg, Sweden

**Phone:** +46 (0)42 444 4000
**Fax:** +46 (0)42 444 4001

**Web:** www.wspgroup.se
**National Biogas coordinator**
**E-mail:** fredrik.christensson@wspgroup.se

**Business & Products:** A culture of diverse people, projects and services. Few consultancies, if any, would be able to match all of the possibilities offered by WSP. Our wide range of skills, competent staff and our extensive experience in complex multidisciplinary projects enable us to provide services for all the phases of projects. From the early analysis, planning, project management and project design to facilities management. We are a complete one-stop consultancy house offering sustainable holistic solutions.

A MULTIPiLiCiTy oF oPPoRTUiNiTiEs

We are an analysis and technical consultancy that plays an active role in civil development within housing, industry, infrastructure, environment and energy.

In the field of biogas we offer a full range of services from feasibility and planning, concept development and engineering design, to management and the supervision of projects.
Component provider and supplier

ABS Group
Address: Box 394, SE–201 23 Malmö, Sweden
Phone: +46 (0)40 35 04 70
Fax: +46 (0)40 30 50 45
Web: www.absgroup.com
E-mail: info@absgroup.com

Maximum agitation, minimum use of power.
The major benefit of the ABS Scaba range is the possibility to customize in order to achieve optimum efficiency and reliability. The ABS Scaba range has a modular design and customization is made simple by combining standard components of units, seals and propellers.
The dry-installed ABS Scaba agitators can be used in many stages of the wastewater treatment process:
- Neutralization and flocculation processes
- Selector tank
- Biological process
- Anaerobic digestion
- Sludge buffer tank

Agimix
Address: Ringväg 6, SE–430 20 Veddige, Sweden
Phone: +46 (0)340 302 50
Web: www.agimix.se
E-mail: info@agimix.se

Agimix offers mixers and agitators for:
- Digester reactors for all organic materials
- Wastewater industries
- Food and Dairy industries
- Pulp and Paper industry
- Chemical and Fine Chemical industries
- Paint and Varnishing Industries
- Petrochemical industries
- Pharmaceutical industry
- Mine and leaching industry

Bioprocess Control AB
Address: Scheelevägen 22, SE–223 63 Lund, Sweden
Phone: +46 (0)46 16 39 50
Fax: +46 (0)46 16 39 59
Web: www.bioprocesscontrol.com
E-mail: info@bioprocesscontrol.com

Bioprocess Control AB is a global leader in providing Advanced Control Technologies (ACT) for the commercial biogas industry. The company's flagship product providing process diagnosis, decision support and optimization capabilities in one customized application, Bioprocess Control also builds total automation systems under the concept known as Intelligent Process Automation Solutions or IPAS. The company has also developed an Automatic Methane Potential Test System (AMPTS) for simplifying the BMP analysis of different substrate materials.

Aide International Systems AB
Address: Box 11066, SE–291 11 Färöv, Sweden
Phone: +46 (0)44 712 70
Fax: +46 (0)44 718 48
Web: www.alde.se E-mail: info@alde.se

Aide, founded in 1949, is the European leader in LPG-based heating systems for caravans and motorhomes. The Aide 3010 boiler – which produces heating and hot water from gas or 230V is installed as a standard by most major European caravan and motorhome manufacturers. We have now further developed the Compact 3010, for use with biogas/natural gas – boiler Compact 3010 Bio.

For holiday cottages or welfare units, where reliable, efficient heating is required, we have the market's most reliable solutions. The Compact 3010 Bio is also a perfect solution in Eco and Passive homes when a small heating or hot water boost may be needed under certain conditions.

The Aide central heating system is a hydronic system, the same type of heating that you find in most modern homes. The boiler heats the fluid mixture of water and glycol, which with the help of a pump, circulates the warm glycol water through convectors and pipes.

Aide supplies all the components needed for a modern gas and 240V powered central heating system, including under floor systems and radiators.

Hydronic heating not only gives a pleasant and quiet warmth, it also gives dust free and healthy air along with natural air humidity.
<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Web</th>
<th>Business Description</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRYO AB</td>
<td>Box 8887, SE–402 72 Göteborg, Sweden</td>
<td>+46 (0)31 64 68 00</td>
<td>+46 (0)31 53 22 20</td>
<td><a href="http://www.cryo.se">www.cryo.se</a></td>
<td>CRYO AB is one of the world’s leading manufacturers of cryogenic equipment for the storage, transportation and handling of liquefied gases. Products: Complete LNG receiving terminals, semi-trailers for land transport, fuel tanks for ships and ferries, as well as gas supply back-up systems and tank containers for liquefied gases.</td>
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<tr>
<td>EQ Gas AB</td>
<td>Smörblomsvägen 9, SE–430 94 Bohus Bjrk, Sweden</td>
<td>+46 (0)31 929470</td>
<td></td>
<td><a href="http://www.eqgas.se">www.eqgas.se</a></td>
<td>EQ Gas AB is a service company company that is specialized in Biogas upgrade systems. EQ Gas AB carries out service on analyzers, gas alarms, compressors etc. We have exceptional competence in high pressure systems. We also build high pressure systems for their use in CBG (Compressed Bio Gas). e.g. CBG filling stations. Products: Service.</td>
<td>Products: Service.</td>
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<tr>
<td>Extevent AB</td>
<td>Smörblomsvägen 9, SE–430 94 Bohus Bjrk, Sweden</td>
<td>+46 (0)31 961600</td>
<td></td>
<td><a href="http://www.extevent.se">www.extevent.se</a></td>
<td>Extevent has been active in the biogas upgrading business for more than 12 years. The main activity is supplying the business with analyzers, gas alarms and other instruments and products. We also supply the main actors of biogas upgrade systems. Products: Analyzer panels, gas detectors, odourizing equipment, supplier of instruments for pressure, temperature, flow etc.</td>
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<tr>
<td>Fribergs Verkstäder AB</td>
<td>Bokedalsvägen 1, SE–534 96 Vara, Sweden</td>
<td>+46 (0)512 30 00 48</td>
<td>+46 (0)512 601 00</td>
<td><a href="http://www.fribergs.se">www.fribergs.se</a></td>
<td>Advanced stainless steel production including components for biogas plants. Products: Agitators, chopper pumps and hygienization units for biogas plants.</td>
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<tr>
<td>Larv Cement AB</td>
<td>Bränebron 1, SE–533 97 Göteborg, Sweden</td>
<td>+46 (0)511 533 33</td>
<td>+46 (0)511 533 66</td>
<td><a href="http://www.larvcement.se">www.larvcement.se</a></td>
<td>Production of prefabricated concrete elements Products: Prefabricated concrete elements for biogas digester heights of: 3–6 m, diameter: 7,4–35,6 m, volume: 125–4500 m³</td>
<td></td>
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<tr>
<td>Malmberg</td>
<td>SE–296 85 Åhus, Sweden</td>
<td>+46 (0)44 780 18 00</td>
<td>+46 (0)44 780 19 90</td>
<td><a href="http://www.malmberg.se">www.malmberg.se</a></td>
<td>Malmberg is a cleantech company with a global focus on pure energy, clean water and natural solutions in the field of biogas and water treatment. Malmberg Water has solid experience, based on over 140 years of activities, which has laid the foundation for a genuine, extensive understanding and perception of those processes and projects related to biogas and water treatment. Malmberg Water has the knowledge and resources necessary to plan, build and maintain complete facilities for biogas upgrading as well</td>
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<tr>
<td>MGE-Teknik AB</td>
<td>Magnetvägen 22, SE–461 38 Trollhättan, Sweden</td>
<td>+46 (0)520 47 65 30</td>
<td>+46 (0)520 42 85 01</td>
<td><a href="http://www.mge-teknik.com">www.mge-teknik.com</a></td>
<td>MGE-Teknik AB is a company that concentrates on landfill gas sites. Our strength is our experience attained since 1986. Our pride is the automatic regulation of gas wells.</td>
<td></td>
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</tbody>
</table>
MPG Miljöprodukter AB
Address: Gruvgatan 35B, SE–421 30 Västra Frölunda, Sweden
Phone: +46 (0)31 47 16 60
Web: www.mpg.se
E-mail: info@mpg.se
Business: MPG specializes in membranes. Our most important products are covers for concrete tanks and lagoons for the storage of digester waste. Over the years, we have supplied storage facilities to many Swedish biogas projects. MPG offers competitive products that fully comply with the market requirements for safety, durability and economy.

MSI Teknik AB
Address: Box 6024, SE-461 06 Trollhättan, Sweden
Phone: +46 (0)520 527 000
Fax: +46 (0)520 213 390
E-mail: mail@msi-teknik.se
Web: www.msi-teknik.se
Business: MSI Teknik AB specializes in durable and energy efficient equipment for milling, shredding and transport of biological substrate, particularly household waste, which can be digested into biogas or composted. Products: MSI Teknik AB develops and manufactures equipment such as the shredder model QRN for the milling of organic waste.

Norup Biorefinery AB
Address: Box 109, SE–289 21 Knislinge, Sweden
Phone: +46 (0)44 60010
Web: www.norup.se
E-mail: sven@norup.se
Business: Small scale, High tech Bioenergy solutions. Bioenergy and recirculation, in general. Peak competence in Biogas and Biodiesel. Engineering, Construction, Biology, R&D and Manufacturing. We develop, produce, install and educate. We work as consultants, an equipment supplier and a “turn key” supplier of complete and complex systems for biogas and biodiesel. Farming, holistic environmental development, recycling and the upgrading of agriculture and/or municipal residues is our day to day business.

NPS Service AB
Address: Box 10 100, SE–400 70 Göteborg, Sweden
Phone: +46 (0)31 55 02 90
Fax: +46 (0)31 55 26 86
Web: www.nps.se
E-mail: nps@nps.se

Osby Parca
Address: Box 93, SE–283 22 Osby, Sweden
Phone: +46 (0)479 177 00
Fax: +46 (0)479 177 25
Web: www.osbyparca.se
E-mail: info@osbyparca.se
Osby Parca - Minimizing the environmental impact...
Osby Parca offers the broadest product range on the market. We market electric boilers, oil/gas boilers and solid fuel boilers for producing both hot water and steam. With the aid of our suppliers, we can also provide complete solutions, including burners, safety systems, water heaters, flue gas scrubbing, water treatment and flue gas design. The range is from 6kW—16MW. Parallel with the innovations in renewable energies, the company works intensively to improve the efficiency of our products for traditional energy sources such as oil, gas and electricity. These products still play an important role in the heating industry. Working to minimise their environmental impact is a matter of course for us. We act in a number of export markets: US, UK, Finland, Norway, Spain, Australia, Romania, Russia and the Middle East, among others.

SPIRAC AB, based in Sweden with a sales and engineering office in Malmö, designs and manufactures the internationally renowned range of SPIRAC shaftless screw conveying, screening, dewatering, compacting, storage and transport products for application throughout Europe.

With extensive experience in sludge treatment, we offer cost effective and innovative technical solutions for Biogas applications. Our team of experienced professional Sales Engineers are available to visit sites and discuss applications and provide the best advice regarding the possible solutions. Our sales team is backed by experienced CAD design engineers to ensure that the best practical system design and lowest possible life cycle cost are achieved for every project. Dedicated project managers ensure that all orders are serviced on a personal basis from the received order to the final handover and documentation provision.

For the transport and handling of:
• Food disposal
• Manure
• Sludge
Business: Terracastus Technologies AB, owned by Volvo technology Transfer AB, has developed a unique technology to clean and liquefy biogas or landfill gas. The process can be used to improve the world’s independence from oil as well as to produce a clean, local and CO₂-neutral transportation fuel from landfill gas or gas produced through anaerobic digestion.

Products: Upgrading technology for the production of LBG/LBM.

Business: Turbec develops and builds microturbines for the distributed generation market. Our turbines can operate in the small scale distributed power generation market as CHP, on fuels such as, CNG, biogas, LPG, Diesel, Vegetable oil, wood chips, pellets, etc.

Products: Turbec T100 CHP

Business: System for waste and material management. Our mission is to develop sustainable products and solutions together with our customers and partners.

Products: WTM AB has 4 main product areas

Business: With a patented apply/release steam pressure technology developed for energy beets to extract a sugar solution, we hope to make a difference. Other crops can be treated against disease to increase fodder quality and for better efficiency in biogas production.

Business: We offer small-scale, efficient biogas plants for agricultural use, with low water and maintenance demand.

Products: Compact turn-key biogas plants for the two-phase anaerobic digestion of substrates with a high solids content, e.g. straw, horse manure, agricultural or gardening green waste.
A regional force for Biogas

Biogas Syd is a collaborative project for biogas that is working strategically and actively to increase the production and use of biogas in southern Sweden. We promote a market-based production, distribution, and use of biogas by networking activities, information campaigns, and technical investigations. We work with environmental issues, technological, and economic development, and agricultural issues—all within the field of biogas.

Besides the extensive experience in biogas in the Biogas Syd staff, the organization holds a vast network of members from different areas within the biogas field, which in a way works as a body of knowledge. The unique quality of the network is the broad representation of actors that represent the entire biogas sector. Within the network, collaboration between private and public players and between universities and other interested partners takes place.

Sustainable Business Hub

Address: Nordskölldsgatan 17, SE-211 19 Malmö, Sweden
Phone: +46 (0)46 71 99 47 Fax: +46 (0) 40 30 11 48
Web: www.biogassyd.se E-mail: info@biogassyd.se

We bring suppliers and buyers together

Sustainable Business Hub is one of the largest cleantech business networks in Sweden. We have detailed knowledge of the cleantech market. We offer you an insight into how Sweden has managed to change a problem-oriented perspective into a resource perspective. Come and see the solutions in operation at our world class reference installations and meet the suppliers of cleantech products and services. We offer a network of more than 200 cleantech companies, local authorities and universities within our region.

In the biogas area, we organize a cluster of companies with extensive and wide experience of exporting knowledge, services, and products. These companies have solid reputations on the market.

Biogas Väst

Business Region Göteborg

Adress: Box 111 19, SE-404 23 Göteborg, Sweden
Phone: +46 (0)31 61 24 02 Fax: +46 (0)31 367 61 96
E-mail: biogasvast@businessregion.se
Web: www.biogassyd.se

The world’s first regional project for biogas as vehicle fuel.

Biogas Väst is a regional collaborative project with the overall aim of stimulating market development within biogas production, distribution, and development of the gas-powered vehicle market. In the project, where Business Region Göteborg is the principal, some 30 organizations, municipal authorities, and companies are involved, including AB Volvo, Renova, Göteborg Energi AB, FordonsGas and LRF.

Business Region Göteborg AB is dedicated to strengthening and developing trade and industry in the Göteborg region. We are a nonprofit organization representing 13 member municipalities. Our goal is to contribute to sustainable economic growth, a high level of employment, and a diversified economy.

Ecoex – West Swedish Environmental Export

Ecoex – West Swedish Environmental Export – offers leading edge expertise and unique contacts to facilitate successful business within environmentally related products and services. We are experts in bringing together the unique expertise of cleantech companies and the specific environmental requirements of users. Ecoex is a collaborative project involving several public bodies in Western Sweden; Innovatum AB Associations of Municipal Authorities in Sjuhäradsområde, Skaraborg and Fyrbo, Region Västra Götaland and Business Region Göteborg, which is also the project owner and manager. Ecoex is funded partly by the European Regional Development Fund. Feel free to call us and we will further inform you about all the ways in which we can help you specifically.