



# ANNUAL REPORT

19

Annual magazine  
of EnviTec Biogas

Financials

(Mio. EUR)	2012	2011	Q4 2012	Q4 2011
<b>Sales</b>	<b>190.5</b>	243.9	<b>51.7</b>	72.1
Germany	101.8	180.8		
Abroad	88.7	63.1		
<b>Gross result</b>	<b>66.6</b>	75.8	<b>17.3</b>	23.1
<b>EBITDA</b>	<b>14.5</b>	20.3	<b>3.8</b>	6.4
<b>EBIT</b>	<b>1.3</b>	10.8	<b>-1.3</b>	2.8
<b>Net income</b>	<b>1.2</b>	7.6	<b>-2.7</b>	1.5
<b>Earnings per share</b>	<b>0.08</b>	0.51	<b>-0.19</b>	0.10
<b>Employees</b>	<b>462</b>	459		
<b>Orders on hand</b>	<b>93.0</b>	170.9		
thereof Own Plant Operation	18.7	19.4		
thereof abroad	31.6	87.2		
<b>Incoming orders</b>	<b>89.7</b>	177.0	<b>5.3</b>	6.7
<b>Cancellation of orders</b>	<b>50.0</b>	57.7	<b>15.2</b>	12.9
<b>Orders completed</b>	<b>120.0</b>	201.0	<b>28.6</b>	58.4
<b>Installed electrical capacity</b>	<b>337.7</b>	294.0		
thereof abroad	82.7	48.7		
<b>Installed electrical capacity</b>	<b>11.0</b>	34.4		
thereof abroad	7.3	27.9		

Annual magazine of EnviTec Biogas

+++ News from our  
company  
+++ Interviews,  
statements and opinions  
+++ Projects,  
technologies,  
regions

**Projects in focus**

# THE STOWELL FARM

**United Kingdom: Gavin Davies, operator of a dairy farm in the county of Wiltshire, talks about the region's flagship project. → Page 40**

**MARKET** Small & strong – EnviTec compact plants → Page 18

**RESEARCH AND TECHNOLOGY** Power to biogas → Page 26

**REGIONS** France is scoring with flexible input → Page 44

# EDITORIAL

**EnviTec's yearly magazine informs  
customers, employees and investors about  
our current activities.**



## Dear Readers,

We would like to use the second issue of our EnviTec magazine to inform you about the development of our company over the past business year: On the 55 exciting pages of this magazine, our employees and editorial staff will give you a detailed look behind the scenes and invite you to take part in our corporate world.

Corporate policy is not always transparent. It is therefore all the more important to clarify the processes and discussions on which our decisions are based and to present them in an understandable way to our customers, shareholders, employees and business partners. Now that the German market has stabilised to a considerable degree, we see significant growth potential above all in foreign expansion, especially in plant construction, our genuine business field.

With all our expansion, however, we never lose our keen sense for our customers! We are ready at all times to support our domestic and international customers with our services. This applies both to complex issues like direct marketing of electricity or repowering or just a broken temperature display: We're there for you! This is the promise that our employees fulfil each and every day. With their many years of know-how and their commitment to the green all-rounder biogas, they contribute to the highest degree to the success of EnviTec Biogas – and demonstrate a motivation which is simply contagious. Our expectations for this business year were surpassed by our subsidiaries, Energy and Stromkontor, which were already founded in 2011. This is where all the work was done which was recently honoured with the dena Biogas Partner Award. Our prize-winning business model of providing green heat, from the renewable source to the domestic heating system', so to speak, is proving a success, which is something we have our employees and the interest of our customers to thank.

On this note, we hope this magazine will peak your interest and look forward to your feedback and to your entries for the next issue!

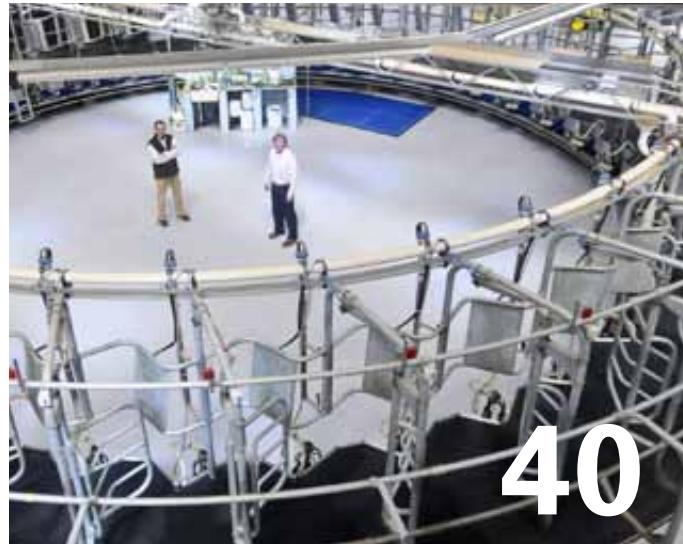
A handwritten signature in black ink, appearing to read "Fischer".

Jörg Fischer,  
CFO EnviTec Biogas AG



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Membrane technology on an industrial scale: the pilot biogas upgrading plant in Sachsendorf.



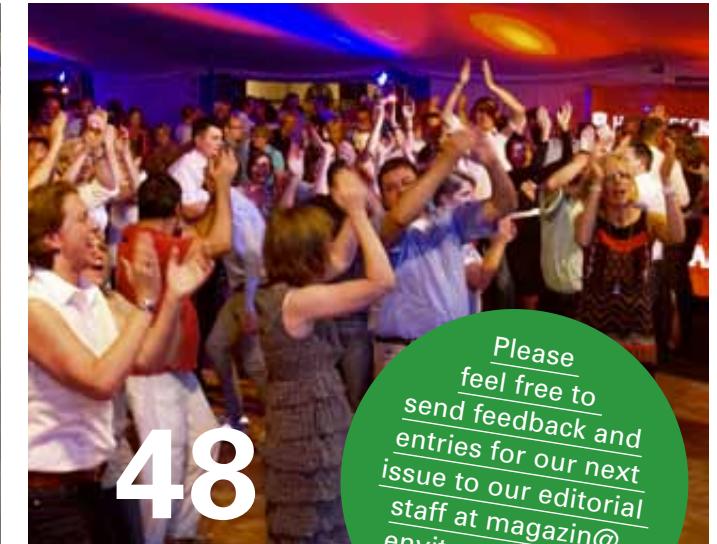
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Satisfied farmer, happy cows: British farmers rely on energy from renewable resources and slurry.



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When waste becomes energy: In Alsace Ribeauvillé an EnviTec plant scores with flexibility of input materials.



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Ten years of EnviTec: A festive atmosphere at the anniversary celebration.

Please feel free to send feedback and entries for our next issue to our editorial staff at [magazin@envitec-biogas.de](mailto:magazin@envitec-biogas.de)!

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<b>06 Good to know ...</b>	<b>15 Successfully selling electricity</b>	<b>28 Easy, efficient? EnviThan!</b>	<b>38 Company-owned operations</b>	<b>46 A new beginning</b>	<b>05 Imprint</b>
Important and not so important information regarding the biogas sector and EnviTec Biogas	Direct electricity marketing made easy	With the new EnviThan plants in Sachsendorf and Köckte, EnviTec is embarking on a new chapter in biogas upgrading.	With company-owned operations, EnviTec develops technical innovations – to the benefit of grateful heat customers.	USA: The first EnviTec plant across the pond.	EnviTec Biogas AG Boschstr. 2 48369 Saerbeck Tel. 02574 8888-0 <a href="mailto:magazin@envitec-biogas.de">magazin@envitec-biogas.de</a> <a href="http://www.envitec-biogas.de">www.envitec-biogas.de</a>
<b>MARKET</b>	<b>16 FLEX and FLAT</b>	<b>32 Diversity for field and digester</b>	<b>47 Cooperation</b>	<b>INSIDE THE COMPANY</b>	Publisher: EnviTec Biogas AG Chief Editor: Katrín Selzer, EnviTec Biogas AG Concept and design: Kreutzmann Unternehmenskommunikation, Hamburg
<b>08 Unique Storability</b>	EnviTec is scoring on the market with two new plant types	Alternative input materials are on the rise – a joint research project provides insight.	Russian-German cooperation-project	<b>40 The Stowell Farm</b>	EnviTec MAGAZIN is available free, by post or e-mail. Reproduction, even in part, only with approval of the editorial staff.
Biogas and the energy transition – Olaf von Lehmden and Roel Slotman about the current market developments and the future of EnviTec	<b>18 Small, strong and green ...</b>	That's what the increasingly popular compact plants from EnviTec are.	United Kingdom: Stowell Farm in the county of Wiltshire relies on energy from renewable resources and slurry.	<b>48 In retrospect: ten years of EnviTec</b>	Printed on 100% recycling paper.
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Flexible, environmentally friendly, independent: The advantages of the green all-rounder at a glance.	There's a lot of potential to be tapped in existing plants! An in-depth overview with a customer interview.	<b>34 Heat for the Artland Arena</b>	EnviTec is scoring in Italy with compact plants.	EnviTec Service	

# GOOD TO KNOW ...

**300**

**MW**

This is the total output EnviTec has installed over the last ten working years, with

which EnviTec biogas plants produce electrical energy for 780,000 households, cutting down on approximately 1.2 million tons of environmentally harmful CO<sub>2</sub> equivalents. Bravo!

**6,000** **meters**

That's the length of the long-distance heat pipe-

line of Bio-Energie Hasetal GmbH based in Lönigen. Over the past two and a half years, the EnviTec customer has successfully implemented a district heating grid for supplying many properties. With the use of renewable raw materials, the company can cut carbon emissions down considerably.

**BIOGAS** 2012  
INNOVATIONSPREIS  
DER DEUTSCHEN LANDWIRTSCHAFT

**Biogas innovation prize  
in agriculture**

Innovative, efficient and environmentally friendly – that's our biogas upgrading process EnviThan. For this reason, it was awarded with the 2012 Biogas Innovation Prize of the German Farmers' Association.



## Blue, red and green honey

is produced by about a dozen beehives all round the biogas plant built by EnviTec in the Alsatian town of Ribeauvillé. Beekeepers conjecture that their colonies strayed into the nearby silos, in which coloured sugar is stored as an input material. The plant operator has now made all storage areas bee-proof to ensure that the honey retains its usual yellow colour and the bees no longer eat where they shouldn't.



## 400 drums

raised the roof of the festival marquee in Lohne on the occasion of EnviTec's tenth anniversary.

**140**

## Over 140 plants

produce energy which is directly marketed with the help of EnviTec Stromkontor. That means a collective output of over 75 MW is taking part in the "market premium model" – an increasing tendency!

**"From the renewable source to the domestic heating system"**

This is the name of our business model honoured by Deutsche Energie-Agentur GmbH (dena) as "Biogas product of 2012", which is based on the integrated approach to the direct marketing of green heat. EnviTec Biogas is the first biogas plant manufacturer in Germany whose business model covers the whole value chain from the renewable source to the domestic heating system.

CUSTOMER STRUCTURE  
PER 12/31/2012

FARMERS	58.4 %
INDUSTRIAL CUSTOMERS	8.5 %
PROJECT DEVELOPERS	13.0 %
OWN PLANT OPERATION	20.1 %

**16**

## minutes

The first start-up time of our EnviThan plant in Sachsendorf from cold start to feed-in was 16 minutes.



## Donations instead of presents

Each year, EnviTec Biogas refrains from sending Christmas presents. In 2012, two associations were donated €5,000 each instead: "Hilfe für krebskranke Kinder und Jugendliche e.V." based in Lohne and "Lebenshilfe im Kreis Steinfurt – Sitz in Greven e.V."



## The motley world of bioenergy

The pictures of the first painting competition for the children of the employees of EnviTec Biogas are full of colour: Tractors, laughing farmers, gleaming yellow suns, deep green meadows and motley biogas plants again and again found their way into the pictures. It was therefore no easy task for the in-house jury to select six themes submitted by about

40 children for the EnviTec Biogas wall calendar for 2013.



**50,000**

**About  
50,000 ha**

of desert are created each day. During his speech on the occasion of EnviTec's anniversary, Dr. Franz Alt referred again and again to the urgency of the energy transition. "If we act quickly, we can still turn the tide."

## Market

# UNIQUE STORABILITY

**With its unique selling point of being a storable renewable energy carrier, the green all-rounder is assuming a central role as a solution in the energy transition.**

**But how are the statutory framework conditions and the domestic and foreign market developing? An interview with Olaf von Lehmden, CEO of EnviTec Biogas AG and his colleague Roel Slotman, Chief Commercial Officer, about the future of the company.**

► **Mr von Lehmden, as sector leader, EnviTec Biogas can now already look back at 11 successful years of business in the renewable energy sector. What differentiates you exactly from the competition and where do you see the strengths of the company?**

One reason for our sustained success in the market is our wide product range. As a plant manufacturing company with the business divisions Service and Company-Owned Operations, we have also made the jump into the energy business environment with the foundation of EnviTec Energy. Our latest business division is dedicated to the direct marketing and purchase and sale of bio natural gas, thus closing the gap from the generation of bio natural gas to the radiator. With this innovative business model, we are the first biogas plant manufacturer in Germany to cover the whole value chain – from the renewable source to the domestic heating system, so to speak. We naturally want to expand on this unique selling point further. Another important factor for our corporate success is our international expansion, which happened relatively early on. And we have successfully concluded our first foreign contacts only three years after the founding of the company.



Olaf von Lehmden,  
CEO of EnviTec



Roel Slotman,  
CCO of EnviTec

► **Mr Slotman, how has foreign business developed since then and where do you see the future core markets for your genuine business, plant construction?**

Making the jump to foreign countries has paid off for us! In 2012, we were able to increase our foreign turnover by almost 40% in comparison to prior year. This success is the result of our foreign strategy that we have consistently implemented since 2005, which can also generate growth in the years to come. The long-standing know-how of our engineers and technicians in innovative plant construction in particular is not so easy to acquire. Biogas technology 'Made in Germany' has therefore become the measuring stick abroad. The German market in turn has entered a phase of maturity after the last few strong years. The annual growth rates registered for the new installations will not be able to be raised any further, and otherwise the current political discussion about the future of renewable energies is posing problems for the order situation. For this reason, we're tending to look abroad for the future core markets of our sector. The growth markets such as Eng-



*Making the good even better: The energy-carrier biomethane can be stored in considerably greater volumes with double membrane roofs.*

land and France currently offer us good conditions for plant construction.

► **In the past business year, EnviTec Biogas has invested roughly EUR 866,000 in research and development. An investment which is paying dividends: With the environmentally friendly biogas upgrading technology EnviThan, you have been able to convince the market. What new EnviTec innovation can we look forward to over the next business year?**

We see gas upgrading as a key technology for biogas utilisation in Germany. We are currently working intensely on reducing investment and operating costs in this field. Areas such as repowering and power-to-biogas are also among our top developmental interests. We can at any rate assure our customers that we will continue to prove our innovative strength as technological leader of the biogas sector in the future.

► **Mr von Lehmden, a regular turnover and attractive margins have made company-owned operations a firm part of EnviTec Biogas since 2007. How many megawatts do you plan to have on the grid by 2014 and what kind of strategy do you have for this? Are you relying on your own plants, or are you negotiating additional purchases?**

We want to enter the year 2014 with an electrical power rating of at least 55 MW, including all 'at-equity investments', which are EnviTec-associated companies. In our company-owned operations, we are concentrating on or-

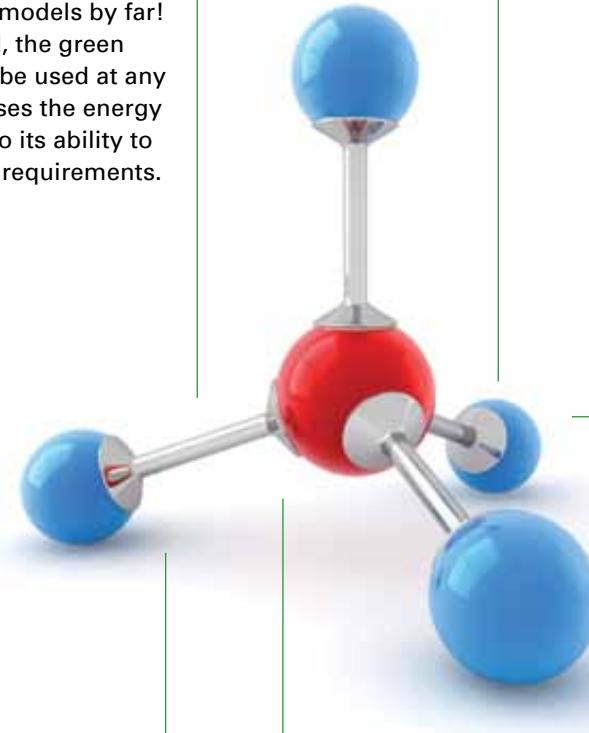
ganic growth, but are also occasionally considering acquisitions, in which respect we clearly prefer EnviTec plants. Our focus lies on the one hand on optimising existing plants, which means the targeted build-up of production capacity at established locations, but on the other hand, we are now looking intensively at the English market.

► **What influence do political discussions about renewable energies have on EnviTec Biogas? In other words: What would you like to see happen in terms of politics and statutory framework conditions? What areas require improvement in your opinion?**

Of first and foremost importance to us are stable and practically realistic framework conditions. Discussions which again and again question the legislative changes that have been made are moving neither us nor the energy transition forward and are also a doubtful reflection of Germany's economic and innovative strength as a business location. With that said, we support the clear commitment on the part of German politicians to protect existing plants, but also demand the return to a reliable energy policy. From our point of view, the Renewable Energies Act needs improvement in the area of 'separate accounting', i.e. the financial separation of produced biomethane volumes with respect to input material categories. This would considerably facilitate a sensible co-processing of organic waste, as the partial gas volumes could then be used in different utilisation routes – in the fuel, heating and co-generation markets. ●

**Flexible**

Biomethane is not only versatile, but can also be decentralised – it can be fed directly into the natural gas grid. An advantage that trumps other energy storage models by far! Once in the grid, the green all-rounder can be used at any time and stabilises the energy system thanks to its ability to meet base-load requirements.

**Environmentally friendly**

A further potential use of biomethane is offered by the fuel market. The transport sector is namely Europe's largest generator of greenhouse gases. As a highly efficient fuel, biomethane can help to reduce these emissions many times over!

**Simple**

Thanks to the simple and flexible plant technology, biomethane can both be produced with great flexibility and controlled in an exceedingly fast and simple way. This makes gas upgrading an optimal second source of income for biogas plant operators.

**Independent**

Biomethane can replace fossil natural gas. Its replacement renders Germany independent of natural gas importers, stabilising the long-term development of prices on the energy market.

**Accepted**

Biomethane is regenerative! For our customers, this represents a significant advantage in terms of competitiveness and image. An improved carbon footprint makes heat customers shine – and this entirely apart from the savings potential afforded by a more efficient use of energy.

# BIOMETHANE

**The green all-rounder shines with its reliable advantages and an availability for use whose flexibility can hardly be outdone.**

**In the 'top ten' of renewable energies, biomethane is one of the great superstars!** It is therefore no

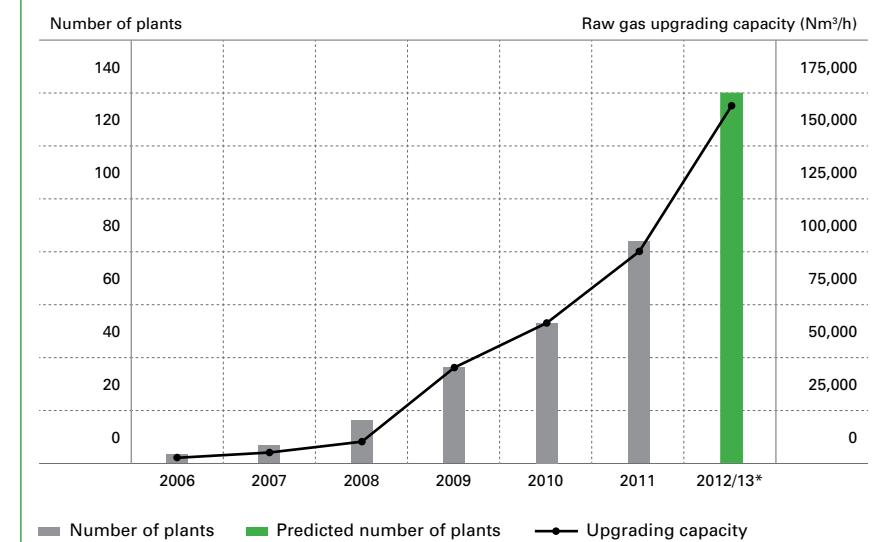
wonder that the green all-rounder impresses above all through its flexibility in use and its storage capability. Biomethane thereby possesses the same properties as natural gas and can be fed without difficulty into the public natural gas grid. "This way biomethane can replace fossil natural gas and promote the energy transition in the gas industry too – and this without having to invest in new infrastructures", states Alfred Gayer, Managing Director of EnviTec Energy, who is responsible for marketing biomethane in the EnviTec Group.

In order to transform conventional biogas into the all-rounder biomethane, the gas must be upgraded. How this works can be explained briefly: When biomass ferments, a gas composed of methane and carbon dioxide forms. The higher the percentage of methane in this gas, the higher its energy content. In the process of its transformation from biogas to biomethane with natural gas quality, the crude gas is first cleaned and compressed. Then the most important process step follows: the best possible separation of carbon dioxide and water vapour. This is achieved by means of EnviThan upgrading technology. What exactly happens in this innovative process has been summed up

in a separate article (p. 27). At any rate, valuable methane is generated as a result of this separation, and this methane can be fed immediately and with no additional steps into the natural gas grid.

**Besides its immediate availability for use, the gas scores above all thanks to its versatility:** Whether in the household, as a carbon-neutral fuel or transformed on a demand-oriented basis to electricity and heat – biomethane is capable of almost anything. Moreover, it is fit for

**Biogas plants for biomethane production in Germany**



\*Prediction

Source: FNR based on Fraunhofer MES (2012)

*Biomethane is boosting the energy transition.*

decentralised use. This means that the utilisation of the gas does not depend on where it is injected – biomethane is simply fed into the locally available natural gas grid. The grid offers an excellent storage solution, one which in scope simply trumps other energy storage models. This allows biomethane to be accessed at any time and also gives it a base load capacity which helps to stabilise the energy system. Another forceful argument for biomethane is economic in nature: Using biomethane reduces Germany's dependence on fossil natural gas and thereby on its importers. In the long term, this contributes to a reliable price development on the energy market. In addition, biomethane promotes the economic growth of the region in which it is injected, which takes place in the immediate vicinity of the gas generating plant, as well as of the region in which it is extracted, which is independent of the feed-in location. As if that weren't enough: The regenerative potential of biomethane allows EnviTec customers to profit from a positive green image with which they can impress their heat customers with an improved carbon footprint.

**Now the only remaining question is which biogas plants are best suited for gas upgrading.** Here too, biomethane proves to be a flexible all-rounder: "Ultimately, gas upgrading offers great opportunities to both smaller and large biogas plants, both technologically and financially", Alfred Gayer continues. In the form of the repowering model, plant operators can also continue to profit from the remuneration of the German Renewable Energies Act. Biomethane thus turns out to be not only a green all-rounder for the energy transition in Germany, but also a profitable second source of income for biogas plant operators – as we said, a true super-talent! ●



# A GOOD START WITH ENERGY

**Biogas can do more! Following their initial successes in their first year on the market, EnviTec Energy and its managing director, Alfred Gayer, are looking to a promising future.**

**This start-up has a lot of energy:** After concluding long-term supply contracts, EnviTec Energy, which is responsible for heating contracting and the marketing of biomethane within the EnviTec Group, can register a good year with a total biomethane supply volume of over 110 GWh. In its most recent business division, EnviTec offers industrial, commercial and municipal customers green heat to improve their carbon footprint on the basis of contracting models. The company produces the heat from self-produced biomethane in decentralised, highly efficient co-generation plants, which are additionally built in parallel to existing heating centres. The company uses long-term contracts to sell customers carbon-neutral heat at stable prices and attractive conditions. "Our concept of offering green energy 'from the renewable source to the domestic heating system' on the market has thus proved to be a success", states Olaf von Lehmden, CEO of the parent company. In addition, with the aid of contracting projects for supplying green heat and direct biomethane sales, three biogas upgrading plants with a total production output of approximately 1,000 Nm<sup>3</sup>/h can be used at full capacity.

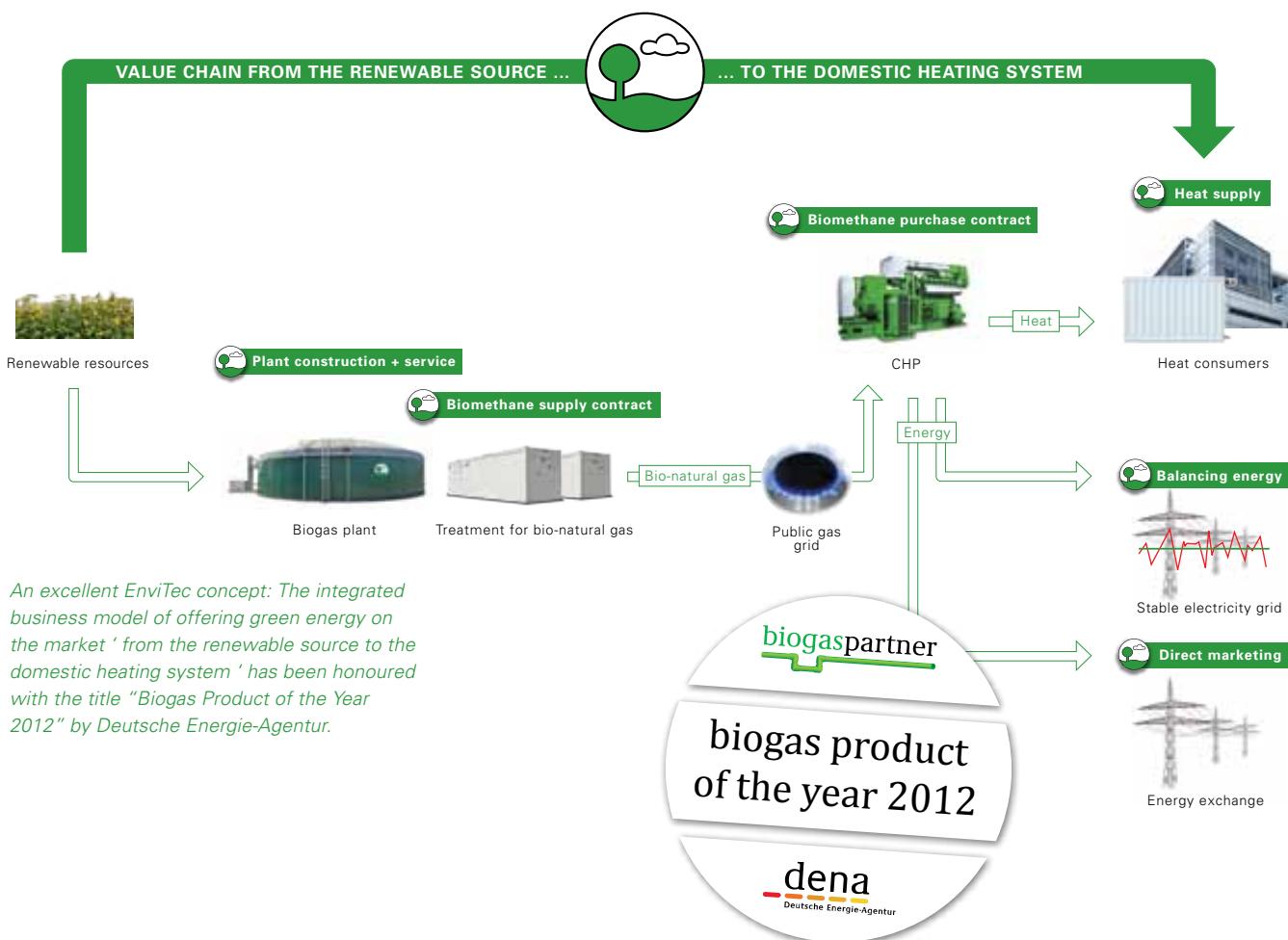
**The mid-term goal of the energy provider is to establish an annual biomethane volume of 500 GWh** and thereby reach a market share of almost 10%. The basis for this success is the integrated "From the renewable source to the domestic heating system" concept em-

*An expert in heating contracting and direct electricity marketing: Alfred Gayer, Managing Director of EnviTec Energy*



braced by the entire EnviTec corporate group. With this approach, awarded by dena as Biogas Product of the Year 2012, EnviTec offers its customers planning reliability for purchasing and sales while simultaneously making a contribution to the increased use of biomethane.

"However, we also see great potential for expanding our biomethane services in Germany and abroad in the economical and environmentally friendly process of upgrading biogas with our novel membrane technology EnviThan", explains Alfred Gayer, Managing Director of EnviTec Energy. The multi-award winning upgrading technology provided by EnviTec Biogas is now not only in demand among market players in Germany, but also internationally. Unlike conventional methods, the pro-



cess is distinguished above all by significantly lower operating costs (see also p. 29). This makes feeding into the natural gas grid an attractive alternative to the on-site generation of electricity from biogas.

**EnviTec Energy offers another successful instrument in the form of a novel concept** for the operation and design of biomethane co-generation plants for peak-load operation. A targeted orientation to the flexibility premium introduced in the Renewable Energies Act (EEG) in 2012 allows combined heat and power plants (CHP) to have a larger-scale design, thereby enabling a property's peak heat demand to be covered. "In the winter, the co-generation plants act as the sole heat generator and simultaneously feed green electricity to the public grid", Alfred Gayer explains. Through the use of the flexibility premium provided for in the EEG, the profitability is in many cases higher than in plants that are only used for base-load provision, despite considerably higher investment costs. "We pass on this advantage to our customers so they can receive carbon-neutral heat at attractive conditions", says Gayer.

Also, the Energy subsidiary EnviTec Stromkontor has expanded its plant pool to reach an output of just under 75 MW, thereby participating successfully in the market premium model of direct marketing as per the EEG 2012. With its subsidiary, EnviTec is also entering the balancing energy market for biogas plants with a total capacity of roughly 26 MW.

At this time, 50 biogas plants form the basis for a total pool looked after by Stromkontor. As a next step, the service is to be expanded to include independent plant operators. They will receive an attractive remuneration for the provision of their electrical balancing power while bearing no risks, as payments to the amount of the achieved EEG rates are guaranteed. At the same time, the energy service company offers customers the option of jointly working out a customised operating and plant model to allow gas production and balancing energy provision to be ideally harmonised – and with that, the high-energy success story continues, entering year number two! ●

# SUCCESSFULLY SELLING ELECTRICITY

**Clever biogas plant operators market their electricity themselves. With EnviTec Stromkontor and great success: More than 140 plants with about 75 MW currently participate in the market premium model – an increasing tendency.**

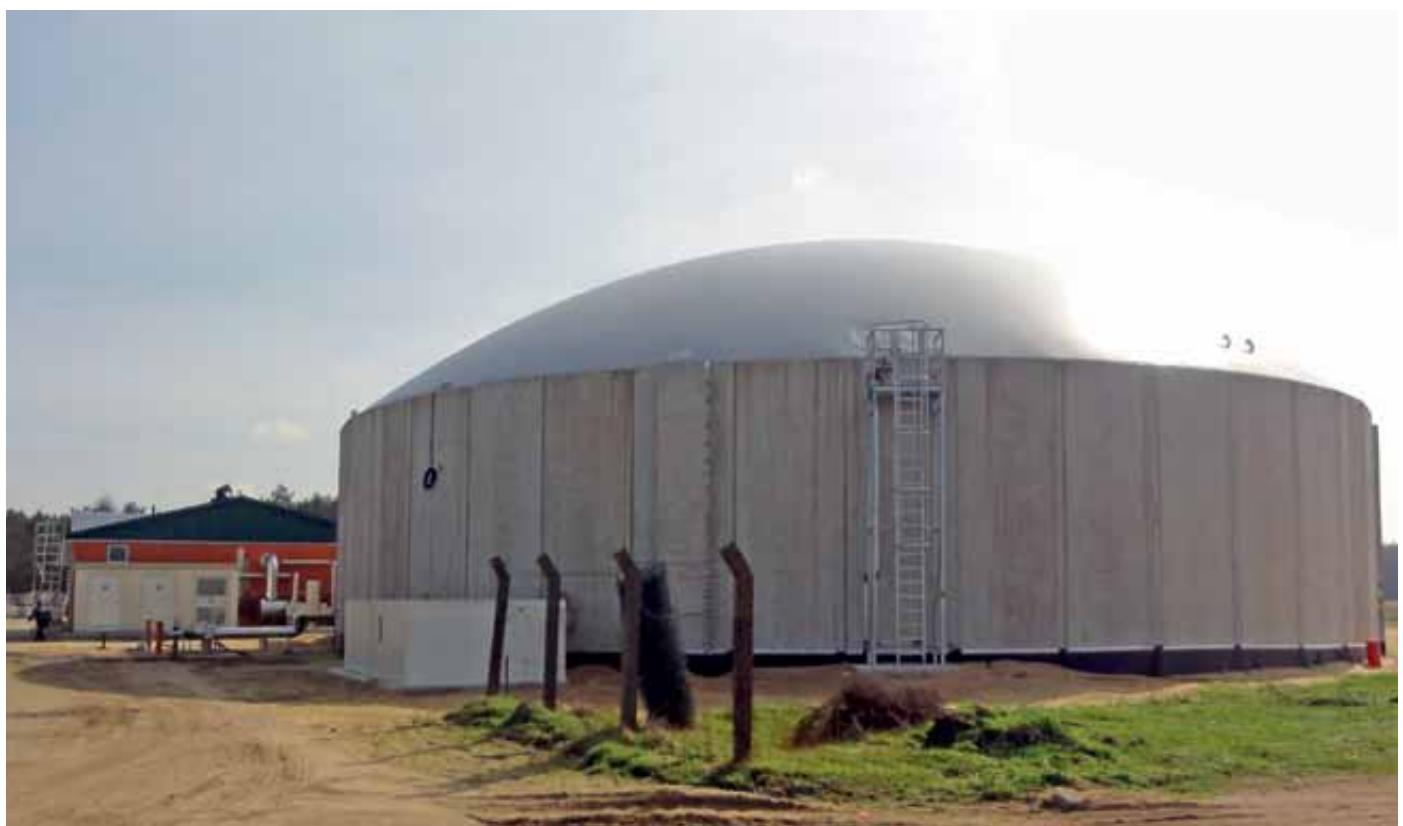
**Marketing one's own electricity? What sounds complicated at first is actually simple for biogas plant operators:** Since January 2012, intelligent plant operators have been able to take charge of marketing the electricity they generate. In this, EnviTec Stromkontor offers support as a reliable partner. More and more plant operators are deciding to exploit the advantages of direct marketing and to put their trust in the expertise of the EnviTec Stromkontor team. With the subsidiary of EnviTec Biogas founded at the end of 2011, the EnviTec Group has opened up new value-added opportunities afforded by the German Renewable Energies Act (EEG) for its customers. Even operators of smaller biogas plants

can directly market their electricity with EnviTec Stromkontor. The company supports customers by taking all actions required to market the electricity on the energy exchange at the average market price or according to demand, as well as for (offering it as balancing energy) providing it to transmission system operators.

"With currently 75 MW we can be very satisfied", as Alfred Gayer, Managing Director of the EnviTec subsidiary, sums up. **The greatest demand is for the safe business model of direct electricity marketing: the market premium model** (p. 36). This generates additional revenues for plant operators as a result of the 'management premium'. However, another major share of Stromkontor customers use the model as an entry into direct marketing which then allows them to offer electricity on the balancing energy market or to run their plants according to their needs. The first 12 plants are already participating successfully in the balancing energy market. "Another 32 MW are equipped with the technical control units required for the regulations", says Gayer. After completing the pre-qualifications, these plant operators can profit directly from marketing the controllability of their plant and thereby contribute to stabilising the electricity grid. ●



*More than 140 plants with approximately 75 MW participate in the market premium model of direct electricity marketing.*



# FLEX AND FLAT

**Rethinking is a profitable enterprise for biogas plant operators: EnviTec is scoring on the market with two new plant types – additional revenues are guaranteed by the Renewable Energies Act (EEG).**

An optimised plant design and state-of-the-art plant technology are the hallmarks of the two new innovative plant models of EnviTec Biogas. The designs in question are EnviTec 837 Flex and EnviTec 637 Flat. The plants represent the company's reaction to the altered statutory framework conditions and the new opportunities they have to offer. With their flexible use of input materials from renewable resources, farm fertilisers and other by-products, "these two plant types are optimally equipped for the Renewable Energies Act (EEG) and beyond", says Christian Ernst, Sales Manager at EnviTec Biogas.

**The legislator already increased the limit for privileged outskirt area biogas plants in August 2011.**

"While the limit in place at the time was 500 kW of electric energy, now there is a maximum rated thermal plant input of 2.0 MW and a maximum capacity limit for the generation of biogas of 2.3 million standard cubic metres", Christian Ernst explains.

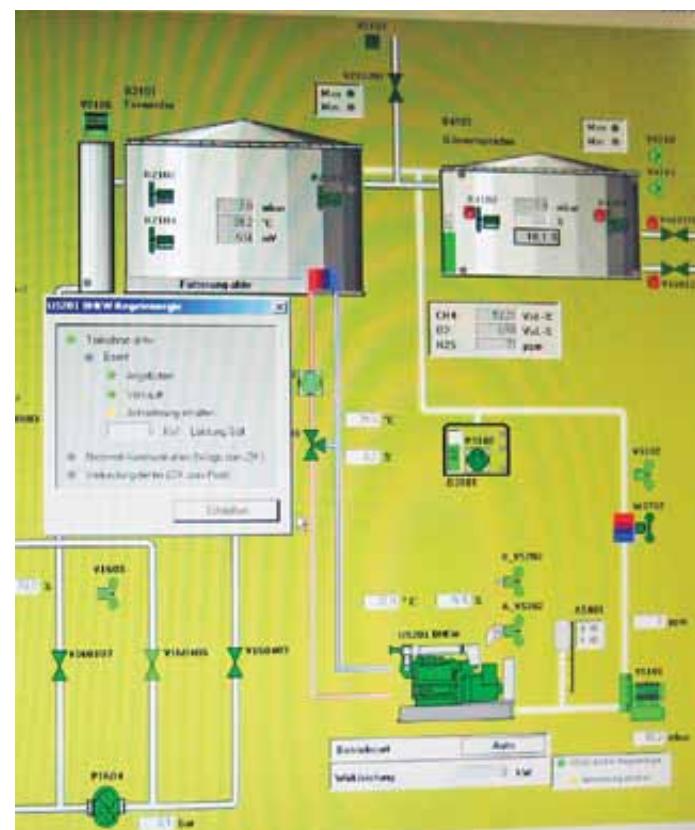
In order to offer plant operators the greatest possible flexibility in their participation in the direct marketing of electricity, the plant is equipped with a gas storage volume which suffices for up to nine hours. "With respect to direct marketing, we guarantee our customers payments to the amount of the EEG feed-in tariff", says Christian Ernst. They also receive a management premium. Plant operators make additional profits with EnviTec 837 Flex with the flexibility premium intro-

*Designed for optimal marketing:  
EnviTec 837 Flex plant in Klein Laasch*

duced by the legislator, who thereby acknowledges that plant operators hold a higher co-generation plant output available in order to produce electricity on demand.

**These are the advantages that won Cor van Ekelen over.** The Dutchman with a pig farm in Klein Laasch in Mecklenburg-Vorpommern operates an EnviTec 837 Flex plant. He and André Thürmann of EnviTec Stromkontor developed a customised operation profile for his plant. "We've constructed a plant on this site which is designed for optimal marketing and runs with an average capacity of 580 kW", Thürmann explains. The most important requirement for this was the installation of an adequate gas storage volume and a control unit used to ensure the controllability of the plant and communication between the service provider and the operator. As an alternative, EnviTec customers can use the EnviTec 637 Flat to run their biogas plant with a constant motor output and still profit from the opportunities afforded by the new legal framework.

As Christian Ernst sums up: "With this plant design, we assure that our customers also receive the EEG feed-in tariff as well as the management premium." Additional opportunities are granted to customers who par-



# SMALL, STRONG AND GREEN ...

**That's what the compact plants of EnviTec Biogas are. The compact plant design is in high demand in the market. In addition to Italy, Germany and France, our compact plant design is also getting more and more popular across the pond in America!**

**Small, powerful and economical** – that's how one could best describe the innovative compact plants in the product range of the biogas plant manufacturer EnviTec. With the changes made to the German Renewable Energies Act (EEG) in 2012, however, the market for compact green energy is really starting to gain momentum. As a reaction to this, EnviTec is enhancing its supply of compact systems from 99 to 300 kW.

The 2012 amendment of the EEG has made smaller biogas plants more attractive for farmers in Germany: Operators of compact plants are thereby capable of making economical use of their plants without purchasing costly substrates.

**Since the beginning of 2013, the Italian market has also started to offer great potential for small plants.** The Renewable Decree that came into effect there on January 1 provides for significant changes in the considerably reduced subsidies and a reduced maize percentage of just 30%, which is the maximum amount that may be mixed. "With our flexible design of compact biogas plants, we can react promptly to this trend, thereby continuing our past success in the Italian market", says Roel Slotman, Chief Commercial Officer at EnviTec Biogas.

With EnviTec's intelligent, tried-and-tested plant construction, compact plants can be installed and put into operation – thanks to their flexible container design – within a very short time. The size of the plant and

its production capacity can be customised completely individually to the respective operations. Its compact design and faster construction time naturally minimises construction costs, as well.

**EnviTec compact plants are also in no way inferior to larger alternatives in the flexibility of input materials.** "The plants have proved themselves effective for a series of organic input materials", confirms Roel Slotman. A 250 kW plant has already been in operation in Italy since October 2010. The pioneering plant situated in



*Already in operation since October 2010: The 250 kW compact plant in the Italian province of Cremona.*



*Small, but strong: Graphical representation of an EnviTec compact plant on the market in Italy since 2012.*

the province of Cremona in Lombardy processes about 50,000 cubic meters of slurry from about 25,000 pigs each year, thus simultaneously solving the problem of disposal. Only a small amount of maize meal is added here to optimise the energy yield.

"As Europe's leader in this sector, we offer attractive alternatives in this small segment based on the tried-and-tested technology and quality of our large plants", Slotman continues. With this, the company convinces not only inveterate EnviTec customers, but also new customers from neighbouring European countries, such as France. Here the increase in the statutory feed-in for small plants up to 250 kW now offers good market opportunities for the high-performance compact plants made by EnviTec Biogas. And beyond the feed-in tariffs, French farmers see small plants as a chance to establish a second source of income which

can guarantee them economic independence in times of crisis in the pig and milk markets. Moreover, France promotes the construction of biogas plants with a reduced approval time for plants which consume less than 30 tonnes of agricultural substrates per day. A construction permit can thereby often be obtained in only four to six months.

**In addition to the European market, the American biogas plant market is also on the upswing**, especially when it comes to the compact plant segment. "We are absolutely in line with the trend with our compact plant design", says Slotman. American farmers like to control the costs and technology of a biogas plant themselves. Plants up to 300 kW are optimally suited for this, as they allow operators to take on maintenance, operation and input control themselves without difficulty. ●

## Research And Technology

# REPOWERING

**There's still a lot of hidden potential to be tapped in existing plants. By upgrading or converting, one can not only reduce the costs for energy and input materials, but also raise the efficiency of the plant.**



**"Making good things even better"** – with this simplified formula, the in 2012 newly founded Repowering department of EnviTec Biogas has already generated a total contract volume of EUR 12.3 million for 18 plants.

*Christian Ernst, Sales Manager at EnviTec Biogas and contact person for the Repowering division*



"Our offer of increasing the efficiency and profitability of older biogas plants by means of state-of-the-art components is attracting broad interest among our customers", says Christian Ernst, Sales Manager at EnviTec Biogas. The founding of the new department thus represents the company's reaction to the demands of the market. EnviTec experts conduct individual analyses of plants to demonstrate potential means and resources that should be exploited.

**After a check-up**, a detailed analysis with a determination of necessary investments and potential additional revenues, plant operators receive an evaluation in the form of a 'proFit analysis'. Once the favoured variant has been selected and the order given, it can all begin. Possible repowering measures include for example installing an additional co-generation plant or replacing an old co-generation plant with a new one with a greater capacity. Operators can also get more out of their plants in the collection and processing of substrates. The targeted processing of substrates allows larger volumes of gas to be generated from the input, thereby considerably improving the overall efficiency of the plant. Moreover, the reduced and more flexible input purchasing required is easy on the operators' budgets.

Regardless of which solution plant operators opt for, the goal of EnviTec remains the same: "For us, the appeal of repowering lies in getting the most out of a plant, which is convincing for our customers, too" says Ernst. ●



### Making the old as good as new –

*replacing a co-generation plant can give a considerable boost to existing plants.*



### Acceleration of gas production with a mixing tank

*With this mixing technology, gas production in the digester can be significantly accelerated, allowing the attainment of higher gas yields.*



### Higher gas storage volume

*For direct electricity marketing, a double membrane roof can be used to increase the gas storage volume, significantly boosting the yield of a biogas plant.*

## Repowering

# AN OVERVIEW OF THE OPPORTUNITIES

Additional co-generation plant, double-membrane roof or perhaps even a new agitator? EnviTec experts recognise the optimisation potential of every plant on the basis of individual analysis and offer support in word and deed to customers in the decision-making process.

1

### Efficiency-oriented plant optimisation

Repowering consulting

proFit planning order

Plant expanded with CHP designs

Plant expanded with EnviThan gas upgrading system

2

### Retrofitted products for increasing yield

Lower operating expenses

- Feed control
- Mid-size agitators
- Iron hydroxide filter
- Air desulphurisation

Flexible substrate feed

- Vertical mixer
- Displacement surface
- EnergyJet

Higher yield

- Kreis-Dissolver for substrate pretreatment
- E-Box for balancing energy
- ORC plant
- Retrofitting of heating grids
- Double membrane roof
- CHP capacity increase

Tank construction

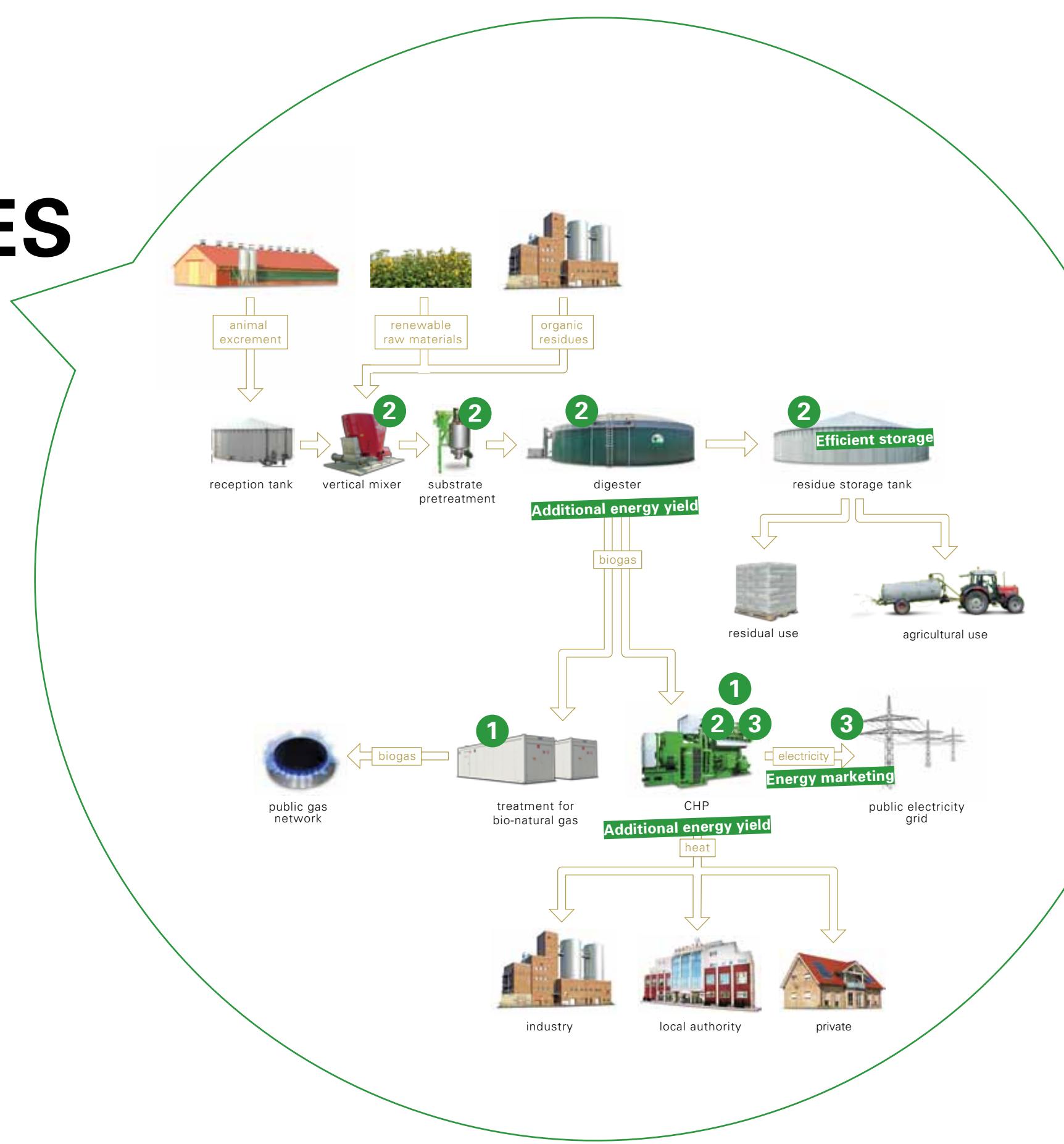
- Slurry tanks
- Gas-tight fermentation residue tanks

3

### Yield-oriented marketing

CHP plant management models

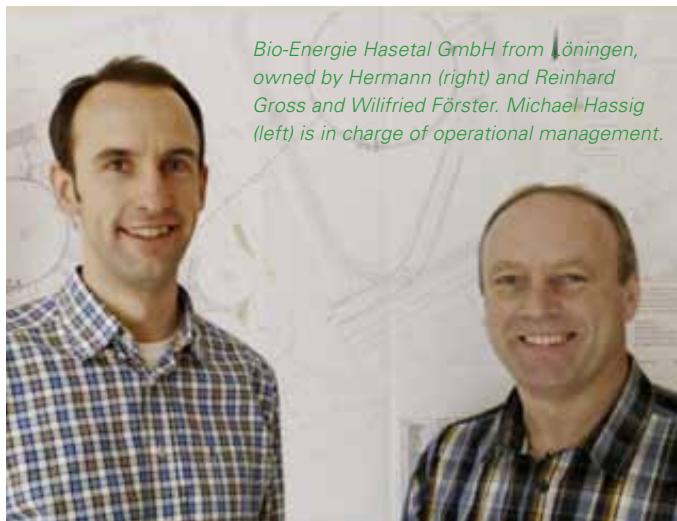
Energy marketing



## Repowering

# A GOOD SOLUTION.

**Sometimes it's difficult to make a good thing even better. When repowering existing plants, EnviTec often pinpoints more than one optimisation solution in the process. Two practical examples:**



*Bio-Energie Hasetal GmbH from Löningen, owned by Hermann (right) and Reinhard Gross and Wilifried Förster. Michael Hassig (left) is in charge of operational management.*

**full capacity. What are the parameters you have to tweak to succeed in this? What kind of decision-making process did you go through when considering potential optimisation measures?**

In order to ensure the optimum utilisation of the capacities of our co-generation plants, the entire process has to function smoothly, from gas upgrading to power generation, as well as heat extraction. Of particular importance in this regard are the reliability of the technology used, having organised operating sequences and the know-how of each and every employee. Decisions for possible optimisations of a plant are often based on its day-to-day operation. Ideas from our team, technical discussions and EnviTec's many years of experience also help in finding the right solution.

► **You intend to adjust the plant technology of Bio-Energie Hasetal more effectively to the total installed capacity of at least 3.5 MW and further optimising it technically – what steps are you taking to do this and what improvements do you hope to achieve in the process?**

We are currently working with EnviTec on the construction of two new digesters along with a completely new solid material intake designed with a displacement surface. We are also adding new, more powerful input technology. Expanding the electrically installed capacity now entails that we adjust the fermentation volume accordingly in order to maximise the gas yield from the input materials. Also, the solid material intake with input technology has been newly developed and designed for larger volumes. We are also focussing especially on the possibility of processing different input materials, such as maize, manure, whole crop silage and grass.

► **You already had your plant completely revamped by EnviTec in 2008 – and now you have again decided**

► **Mr Gross, your hometown of Löningen in Oldenburg Münsterland made the decision in April 2012 to actively support the ambitious goals of the German government by creating an integrated environmental protection concept. What role has Bio-Energie Hasetal assumed in this?**

We almost see ourselves as an integral part of this concept. Over the last two and a half years, we have worked together with the town of Löningen to implement a district heating grid for supplying many properties in Löningen. This includes four satellite co-generation plants which are supplied with biogas from our plant and a district heating grid with a length of approx. 15 kilometres for supplying many public buildings and some private properties. Using renewable raw materials can cut carbon emissions down considerably.

► **Mr Hassig, as the operator of multiple co-generation plants, you must of course want to use them at**

**on EnviTec for your current repowering measures. What convinced you to work with EnviTec again?**

An advantage that we see with EnviTec is that the new completed plant parts are integrated entirely into the existing plant. That means the complete integration of all new components into the plant control system, central data acquisition and documentation. This must be emphasised in particular because even older plant parts from other manufacturers must be completely integrated. In addition, we appreciate the personal assistance offered by EnviTec in the planning and construction phases. Before beginning construction, informative technical discussions are held on project implementation which are not only coherent as a whole, but also safeguard us as operators against faulty investments.

And we have also come to value EnviTec Service as a reliable partner. Their support and 24-hour availability, even on the weekend, are unique in this form. While other manufacturers are 'unavailable' after 17 h, you can still get technical support at EnviTec even after midnight.



*Henning Seele, CEO of Friller Biogas GmbH & Co. KG in Petershagen, North Rhine-Westphalia*

► **Mr Seele, you have recently replaced the 345 kW motor of your biogas plant with a 400 kW motor. Why did you decide to make this change? After all, replacing a motor generates additional expenses.**

From November 2005 onwards, my co-generation plant has served me well with 60,000 hours of operation. Nevertheless, the superior efficiency and additional 50 kW power of the new machine were tempting, of course.

And installing a new motor ultimately allowed us to skip the impending inspection of the old one.

► **Are there other parameters you can tweak to improve the profitability of your plant?**

In terms of yield, hardly. This is because the electrical and thermal capacity is utilised 100% all year round, and with 1,850 m<sup>3</sup>, the digester's biological operation is outstandingly solid and stable. Thanks to the high-quality components, the maintenance costs could hardly be lower, so the main cost factors were and still are the renewable resource costs.

► **As an input material, you mainly rely on maize as a renewable energy carrier – how fit is your plant for alternative input materials?**

Until now, we have used maize exclusively and, with the costs of renewable resource costs in ct/kWh, we currently cannot find a better energy carrier. Should this be the case, alternatives can be easily implemented, although due to my lack of experience, I can only speculate as to their reliability or potential problems.

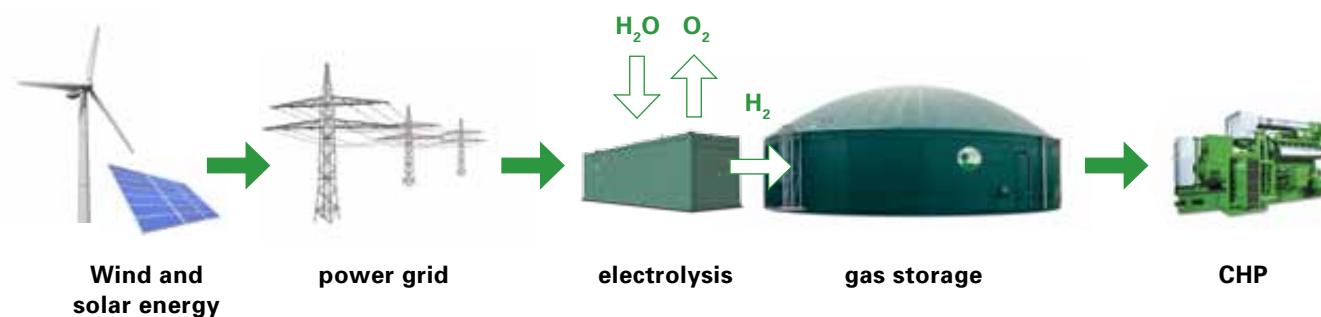
► **As one of the first EnviTec customers, you can now look back at seven years of biogas plant operation. What were the high and low points and what argument convinced you to resort once again to the expertise of EnviTec for your repowering needs?**

The 'high points' of plant operation are concentrated on the optimum year-round energy utilisation of electrical and thermal energy and on the optimum utilisation of co-generation plant capacities. If the adjustments to the EEG (2009) had not been made, profitable plant operation would no longer be possible today. We really didn't have any negative experiences with respect to the plant's reliability or need for repairs. Of course the learning process is ongoing on the biological side, and the elimination of trace element deficiencies was an important condition for being able to run at constant full load. The main low point is certainly the cost explosion for renewable resources we are currently facing.

If you've done well for seven years with the plant and the service, you're not about to change horses when it comes to repowering either. The main argument of course was the 'everything from one source' concept and the documentation and CE marking that went with it. There are no such excuses as "it doesn't fit" or "I didn't know that" if everything comes from the same company.

# POWER TO BIOGAS

**EnviTec offers a future-looking concept for biogas plants as storehouses for wind and solar energy**



**'Power to gas' refers to a system solution that could give the energy transition a huge push forward.** With the aid of this technology, electricity can be converted from renewable energies to hydrogen or synthetic natural gas and stored in the natural gas grid. This would be a way to store large amounts of electricity from renewable energies on a long-term basis.

EnviTec Biogas has also worked out an approach to this, as well as a pioneering concept for storing hydrogen from wind and solar electricity. This approach dispenses with the laborious intermediate steps required to feed the hydrogen into the natural gas network and uses the excellent basic characteristics of biogas plants for the regenerative stabilisation of the electricity grid. In comparison with other upgrading methods, the concept also reduces the amount of substrates needed for operating the plants by as much as 10%.

**"The conventional power-to-gas solution entails energy losses and high costs.** In this case, excess electricity is used to produce hydrogen via water electrolysis which, in a second step, is converted to synthetic

methane with the use of carbon dioxide so that it can be fed on demand into the natural gas grid", explains Jürgen Tenbrink, Chief Technical Officer of EnviTec Biogas AG. According to Tenbrink, a much more cost-effective method is directly using hydrogen generated by electrolysis via wind power in the biogas co-generation plants.

Exploiting the infrastructure of existing biogas plants homogenises the wind power production process and reduces the challenges of the power-to-gas solution. "Even now, we are not yet taking full advantage of the potential of existing plants in terms of grid stabilisation", says Alfred Gayer, Managing Director of EnviTec Energy and responsible for the integration of biogas plants into the energy business environment.

**Tenbrink emphasises the need for a revaluation: As opposed to the fluctuating renewable energies like wind and sun, biogas is a storable energy carrier** "whose merits have not been fully brought to bear in the Renewable Energies Act (EEG) 2012". This could be remedied by installing additional electrolyzers, i.e. devices which use



*Strong duo for a green future: wind power and biogas. With Power-to-Biogas, EnviTec has developed a concept for storing hydrogen from wind power.*

electricity to drive a chemical reaction – in short: electrolysis. The hydrogen produced in this way can then be used for biogas plant power generation.

While power-to-biogas technology is already fully developed, the EnviTec research and development unit is at present working on an intelligent control system for gas storage. "We are currently conducting promising field tests for this purpose at a biogas plant in Klein Laasch, Mecklenburg-Vorpommern", says Tenbrink. The production of positive and negative balancing energy represents a fundamental contribution to the energy transition. The condition for this is the successful provision of energy from biogas plants on a demand basis. "However, gas production and storage and the

operation of co-generation plants must be controlled by a software solution in such a way that balancing energy can be provided with a high forecasting accuracy", Tenbrink explains further.

**He is certain that "power-to-biogas can contribute in an important, cost-effective way to the stabilisation of the power grid",** although the conditions for its practical implementation are yet to be created. "Without the integration of existing biogas plants as cost-efficient temporary storage option, there will be no regenerative stabilisation of the power grid." The approach of using biogas as a system energy carrier and less as a source of electricity production will grant biogas an important role in the energy transition. ●



Membrane technology on a grand scale: the Sachsendorf plant impresses with its ultra-high efficiency.



# EASY, EFFICIENT? ENVITHAN!

With the new EnviThan plants in Sachsendorf and Köckte, EnviTec is embarking on a new chapter in biogas upgrading.

**Short start-up times to full capacity, up to 99% methane content and very low methane slip** – EnviThan is doing all this in the Saxony-Anhalt town of Sachsendorf and nearby Köckte, where EnviTec Biogas is building its first commercial plant with a production rate of 350 Nm<sup>3</sup>/h. The gas upgrading process developed by EnviTec with the cooperation of Evonik Industries impresses with its high efficiency, which is above all due to the large-scale membrane technology used. By utilising highly selective membranes, the methane content can be increased to up to 99%. The innovative technology exploits the different sizes of gas molecules: Since carbon dioxide molecules are smaller than methane molecules, they can migrate through the membrane much more quickly. Therefore, the methane remains on the high-pressure side, while the CO<sub>2</sub> molecules in the biogas pass through. As a result, the gas treatment needs neither chemicals nor water nor any other resources. "This makes EnviThan less expensive and more eco-friendly compared to other methods, because no wastewater is produced," Jürgen Tenbrink explains, Chief Technical Officer at EnviTec responsible for research and technology. In addition, the process reduces methane



SEPURAN® modules consist of several thousand hollow fibres manufactured from high-performance plastics and bundled in a stainless-steel tube.

slip – which is typically high with other upgrading processes, such as pressurised water scrubbing and pressure swing adsorption – to a minimum of 0.5%.

The high-capacity 75 Nm<sup>3</sup>/h flagship project, which was started on October 25 in Sachsendorf together with Evonik, research partner and developer of the SEPURAN® modules used in the process, has already garnered international recognition. "The first international visitors of interested investors from England, for example,



In rank and file: Interior view of the plant with SEPURAN® Green membrane modules.

but also from Asia are making it clear to us that the acceptance for membrane technology in the market is growing", confirms EnviTec Product Manager Carsten Steentjes, who is in charge of the EnviThan technology used here.

**However, the increasing trend of feeding biomethane to the natural gas grid represents an important milestone in the energy transition for Germany, in particular.** It not only makes a positive contribution to climate protection, but also reduces the country's dependency on natural gas imports. Admittedly, the current supply volume of 5 billion kWh/a is considerably short of the German government's target of 60 billion kWh/a. EnviThan can make an important contribution in this regard to enhancing the profitability of upgrading and feed-in. Until now, connecting a biogas plant

has always been a big challenge for gas grid operators. In particular, the generally required compressor stations involve long approval periods and high investment and operating costs. Here too, the upgrading technology that was already awarded in 2012 with the biogas innovation prize in German agriculture can remedy the problem. The gas upgrading process allows biomethane to be fed to the grid very flexibly and with high pressure on the basis of a standardised, modular plant.

Uwe Riegel, Managing Director of the pipeline network operator ONTRAS-VNG Gastransport GmbH, is aware of the challenges created by the new plant connections. Sometimes the gas must be subject to compressions of up to three stages in order to be injected into the grid: "In this respect, the pilot project in Sachsendorf can be seen as a quantum leap, as the process only requires a one-stage compression, which immensely reduces the expenses and work required. The experience collected here can therefore potentially help future plants to dispense with compressor stations entirely.

**EnviTec has developed a flexible, modular container concept with an impressively simple design to be used for the environmentally friendly upgrading process.** The Sachsendorf plant was supplied in the form of fully assembled, compact units. All the components – from desulphurisation, compression and condensation to filtration and gas separation – were pre-installed in two closed containers. For this reason, no more major construction work was required. This means that the process can also be implemented without difficulty in order to convert existing biogas plants to feeding into the natural gas grid at a low cost and little space consumption.

An added bonus of the technology is flexibility in the biomethane supply rate, which can be adapted later to altered on-site conditions. This is allowed by the modular design of the membrane system, on the basis of which the process can be exactly calibrated to the planned production volume.



*"It can hardly get easier than this!"*: Plant operator Günther Schuboth enthuses over the technology used in Sachsendorf.

"The design – modular with respect to both the containers and the membrane modules – give us an entirely new flexibility in biogas upgrading", says Carsten Steentjes. EnviTec can therefore not only design the plants exactly according to the current requirements of customers, but also gradually expand them later without difficulty. "I would never have thought that biogas upgrading would be so easy to manage", says Günther Schuboth, operator of the Sachsendorf plant in summing up his experience with EnviThan. "It can hardly get easier than this!"



*The pioneering plant in Sachsendorf has already been able to register positive results for the first six months of its operation: It reaches the maximum flow rate of 75 Nm³/h with a start-up time of significantly less than ten minutes. In addition to the rapid availability of the gas in the network, the operator enjoys high flexibility in the upgrading process. With EnviThan, it is possible to react very quickly to changes in the operating parameters in the gas grid and to make short-term adjustments to the methane content. For example, it is possible to switch from 96% to 98% – or vice versa – within a few minutes. Beyond that, it is anticipated that the technology will have a positive impact on the profitability of biogas upgrading. Moreover, on the basis of the operating results from the Sachsendorf facility, the manufacturer has determined a power requirement of 0.2 kWh per Nm³ raw gas.*



# DIVERSITY FOR FIELD AND DIGESTER

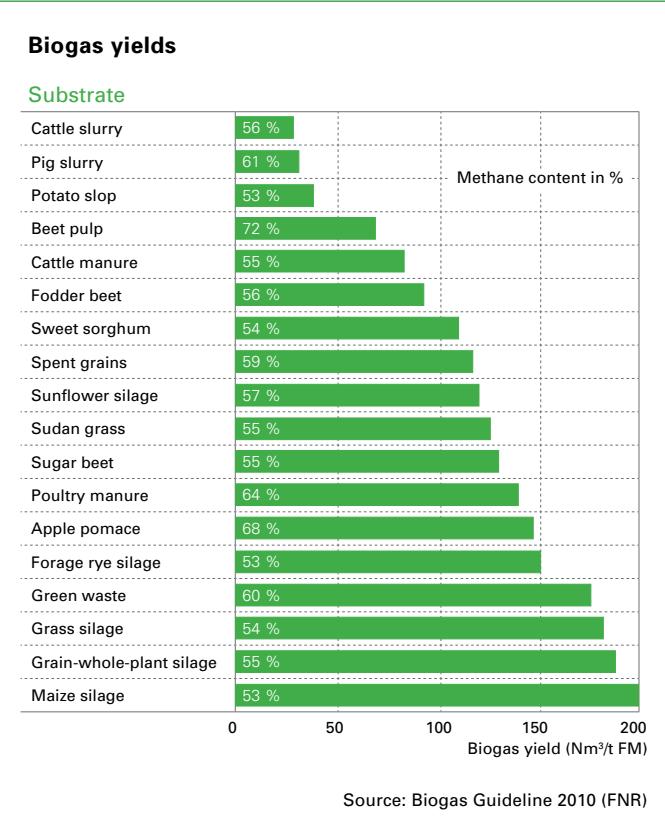
**Alternative input materials are establishing themselves more and more in biogas plant operations – a joint research project provides insight.**

**Their names are Silphium, Sorghum and Szarvasi, and they are increasingly diversifying Germany's crop land.** These are alternative energy crops, which are slowly but surely establishing themselves in the market as input materials for biogas plants. Not only can these newcomers sustainably improve the soil structure and the humus balance, they also boast the best methane yields in direct comparison to maize, whose use is still as broad as ever – though admittedly solid evidence for this has been lacking thus far. This problem is being addressed by a pioneering joint project bridging research and practice subsidised by the German Federal Ministry of Food, Agriculture and Consumer Protection via the "Fachagentur Nachwachsende Rohstoffe".

## Gas yields of different substrates

The figure shows reference values for the gas yields of different biogas substrates and their average methane content. The gas yields which are attainable in practice may deviate from these values, as they depend on the substrate mixture and the technological and biological characteristics of the biogas plant used.

Published by FNR, 2011.



Diversity on the field and in the digester: Alternative energy crops also help in part to improve the soil structure and the humus content of fields (picture: FNR).

Since 2011, Ruhe Agrar GmbH has provided the University of Osnabrück with a total of 400 hectares of crop land for research purposes distributed over four locations in the federal states of Lower Saxony, Mecklenburg-Vorpommern and Brandenburg. At these sites, Dr. Hans-Jörg Brauckmann from the university's research unit "Sustainable Biogas Production" is examining a variety of crop rotations under both ecological and economic standpoints together with farmer and biogas plant operator Kunibert Ruhe, CEO of Ruhe Agrar.

"Crop trials are being used to investigate these new energy crops and to compare them on a scientific basis", explains the agroecologist Brauckmann. In order to obtain the most practically relevant evaluation possible of gas yields and quantities of fermented substrates, we are implementing state-of-the-art technologies to put input materials, digester contents and fermentation residues to the ultimate test. "Here we are relying on two identical digesters running in parallel which can determine the biogas yield in a direct comparison", says Kunibert Ruhe. Ruhe Agrar GmbH, based in Lüsche in the municipality of Bakum, operates agricultural biogas plants geared to sustainable, efficient biogas production. The project, unique in this form, therefore allows the perfect transfer of scientific results into practice.

"Thanks to our cooperation, we are a good two years ahead of the market", Ruhe emphasises.

**Initial test results show that composite plants like silphium perfoliatum, commonly referred to as cup-plant, are by all means a worthy competitor for maize.**

The plant can be harvested for years without replanting and counteracts erosion. The research team suspect that sorghum harbours another huge plus. The grass from the Poaceae family originating from East Africa offers lower yield losses than maize in drought conditions and therefore potentially represents an economically viable alternative. Brauckmann and Ruhe are also hoping to achieve good results with Szarvasi grass from Hungary, which has thus far granted high yields of fresh mass and methane. The team expects the first authoritative research results at the end of 2013. But it doesn't stop there: The successful research and economics team has initiated another forward-looking joint project with the renowned Johann Heinrich von Thünen Institute and the Leibniz Centre for Agricultural Landscape Research (ZALF). Agroecologist Braukmann explains: "Here we are working in the area of flora and fauna on the question of what impact the alternative input materials have on insects and soil animals." ●



*The Artland Arena has been enjoying the advantages of green heat from biomethane since the end of 2012.*

*The biomethane co-generation plant operated by EnviTec Energy in Quakenbrück with an electrical power rating of 637 kW not only heats the Artland Arena, but also the outdoor and indoor swimming pools and multiple schoolhouses of the collective municipality of Artland. The sustainable, tradition-conscious image of the community of Artland benefits greatly from the environmentally friendly heat: Centuries-old half-timbered farmhouses and avenues characterise the park-like landscape around the town of Quakenbrück, which is part of Artland.*

*(image: Samtgemeinde Artland)*

## Projects in focus

# HEAT FOR THE ARTLAND ARENA

**Biomethane can be used cross-regionally for decentralised, carbon-neutral energy production – the collective municipality of Artland and the basketball club Artland Dragons are profiting from this.**

### **Opening up the large heat market for biogas independently of the locations of the generating plants:**

This is the goal EnviTec Energy has set for itself with its heat contracting programme. What's required to make this possible is biogas upgraded to natural gas quality, i.e. biomethane, which can be injected directly into locally available gas grids and used at other locations from the grid for electricity and heat production via decentralised co-generation plants. "Our goal here is to allow the advantages of renewable energies from biogas to be exploited irrespectively of the production location", says Alfred Gayer, Managing Director of the newest EnviTec subsidiary.

For example, the upgrading plant built by EnviTec Biogas in Köckte, Saxony-Anhalt, supplies two contracting projects in Leipzig and also the town of Quakenbrück in Lower Saxony with a production rate of approximately 350 Nm<sup>3</sup>/h. Using the EnviThan gas upgrading process developed by EnviTec, biogas is upgraded in Köckte to the quality of natural gas and then fed directly into the public gas grid. The gas quantity injected can be removed at other locations, which allows the biomethane to be used cross-regionally for decentralised, carbon-neutral energy production.

**The collective municipality of Artland has been profiting from the benefits of green heat since the end of 2012.** The biomethane co-generation plant operated by EnviTec Energy in Quakenbrück with an electrical power rating of 637 kW is expected to heat the town's outdoor and indoor swimming pools, multiple school-

houses and the publicly owned sport arena of the national basketball team Artland Dragons using green heat until the end of 2028. An additional sport hall is currently being connected to the town's heat grid. Heat from biomethane boasts extreme long-term price persistence and therefore represents a stable, calculable investment for major customers, communities and public establishments.

Gayer adds a further argument for the increasing trend in heat contracting: "Thanks to its carbon neutrality, our heat supply also helps to improve the overall climate footprint of our customers to a considerable extent." The sustainable, tradition-conscious image of the community of Artland benefits greatly from the environmentally friendly heat gained from the green all-rounder biomethane. Centuries-old half-timbered farmhouses and avenues characterise the park-like landscape around the town of Quakenbrück, which is part of the Artland region.

**The services of EnviTec Energy are particularly attractive for customers who have heating centres with a capacity of over 1 MW.** For such customers, the company plans the construction and operation of decentralised co-generation plants which are tailor-fit to their needs, and bear no additional costs other than the stable long-term heating price. The customised products and services apply equally to communes, industry, hospitals and housing developers and to planning and engineering offices – "for us, they are an important link to the customer", Gayer continues. ●

# ELECTRICITY SALES IN PRACTICE

**The issue is highly complex, but more and more customers are facing up to it with the help of EnviTec Stromkontor: the direct marketing of electricity. EnviTec spoke with two customers.**



*A customer since day one: Josef Ronnebaum has participated since as early as May 2012 in direct electricity marketing with his 500 kW EnviTec plant.*



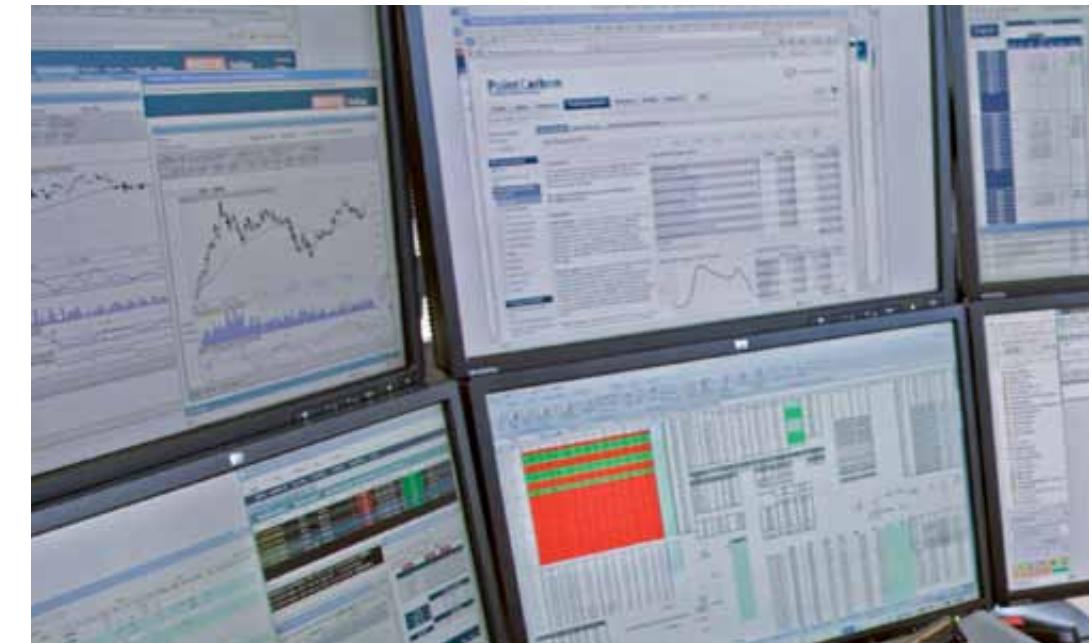
*In addition to the 500 kW plant, Ronnebaum also uses a new 637 kW plant from EnviTec to produce balancing energy.*

**Clever biogas plant operators market their electricity themselves. While that may sound like a good idea, how does selling electricity actually work, and who assists in the process?** These are questions that Josef Ronnebaum from the Lower Saxon town of Bösel has also asked himself. He is participating in direct marketing with his 500 kW EnviTec Biogas plant built six years ago.

As one of the first customers, he decided as a first step on the market premium model in May 2012 after consulting with EnviTec Stromkontor. The management premium contained in the model acted as an incentive for operators to market their electricity themselves. As a next step, German legislation wants to offer the option of participating in the balancing energy market so that renewable energies are integrated into the electricity system and the electricity market in a more sustainable way, thereby greater contributing to the security of the power supply. However, producers like Josef Ronnebaum are supposed to behave the same way on the electricity market as operators of conventional power plants. They continuously supply electricity and offer the market the option of reducing the output of their plants when the voltage in the grid is too high.

This is exactly what Ronnebaum intends to do on his pig farm the with the new 637 kW plant from EnviTec: After the prequalification of his plant, he can specify the extent of his adjustable capacity, thereby partially determining his revenue through the negative regulation of the plant. He thereby profits on the one hand from the additional revenues from the demand

*Risk free and easy: On behalf of its customers EnviTec sells green electricity directly on the energy exchange. For operators, the fluctuations in the market price at the energy exchange are compensated by the market premium.*



rate for the provision of adjustable power and from the working price for the power actually requested on the other: "As our existing plant is shut down multiple times per month by the grid operator anyhow due to an excessively high supply voltage, switching to balancing energy was an obvious step for us, and of course we want to secure additional revenues with the new plant, as well", the farmer from the district of Cloppenburg explains.

**The most important requirement is the installation of a control unit for ensuring the controllability of the plant.** Biogas plants with a total capacity of more than 30 MW are now equipped with this control unit, of which 12 plants are already successfully participating in the balancing energy market. After completing the required prequalification, all the remaining plants will also make profits on the balancing energy market.

In addition to the balancing energy offer, biogas plant operators also have the option of producing electricity according to demand and marketing it likewise. To do this, the produced gas must be put in intermediate storage in low-demand periods of the day so that it can be retrieved and fed into the grid at peak times of power consumption, e.g. in the morning when lights and computers are turned on in offices and apartments.

**While this procedure seems understandable enough, how is the process controlled?** After all, the operator has to know when to start up and shut down the plant. The Dutchman Cor van Ekelen, who has a pig farm in Klein Laasch, Mecklenburg-Vorpommern, is the

first EnviTec customer to feed power to the grid based on demand. Together with EnviTec Stromkontor, he developed an individual operation profile for his 837 kW Flex plant which ensures a heat supply over 24 hours. The plant operator receives a 'flexibility premium' for additional investments made to make his plant more flexible. The added bonus is that the motor of the plant boosts production in periods in which the demand and thus the price is the highest. Pretty clever! ●



**Direct marketing** refers to the sale of electricity from green energy to the electricity market or industrial consumers. Green electricity is traded and sold on the trading floor at the same market price as conventional electricity. The **market premium** compensates for the financial difference between the market electricity price and the remuneration defined in the Renewable Energies Act (EEG) for green electricity. **Balancing energy** refers to electricity available on a short-term basis which is required to compensate for mains fluctuations. Biogas is the only renewable energy which can be controlled according to demand. The '**flexibility premium**' was implemented by the German legislation for plant operators who can produce and feed in electricity based on demand. This way, additional earnings can be achieved simply by shifting electricity production to periods when prices are high. However, this requires a sophisticated schedule management to provide the data required for the optimal operation mode of a biogas plant.



# COMPANY-OWNED OPERATIONS

**With the company-owned operation of biogas plants, EnviTec can develop technical innovations using its own plants – to the benefit of grateful heat customers.**

**Farmer Detlef Koch is a true all-rounder:** In addition to his main job as the proprietor of a dairy farm in the Saxony-Anhalt town of Böddenstedt, he has been operating a biogas plant from EnviTec since the end of 2011. The plant from BGA Böddenstedt GmbH & Co. KG is part of a company-owned operations model of the biogas plant manufacturer from Lower Saxony; with its 526 kW motor, it now supplies 32 residential houses in the old heart of Böddenstedt with green heat – an increasing tendency: "We are currently in dialogue with town of Salzwedel over whether we will be approved to supply the municipal swimming pool with heat", says Simon Schuldei, Project Manager of Company-Owned Operations at EnviTec. EnviTec's heating concept impresses above all through its significantly improved ecological impact – all 100% of the excess heat is released into the grid. Moreover, the plant also has a drying unit. "This ensures that the heat can be used in an ecologically sensible way even outside of the heating period", Schuldei explains.

In planning the new company-financed plant in Böddenstedt, EnviTec has generated positive resonance above all due to the favourable development opportuni-



**"Arguments in favour of biogas plants are obvious."**  
Detlef Koch, operator of the Böddenstedt biogas plant.

residents of the development area want to be connected to the heating pipeline.

With its regular turnovers and attractive margins, company-owned operations have been a firm compo-

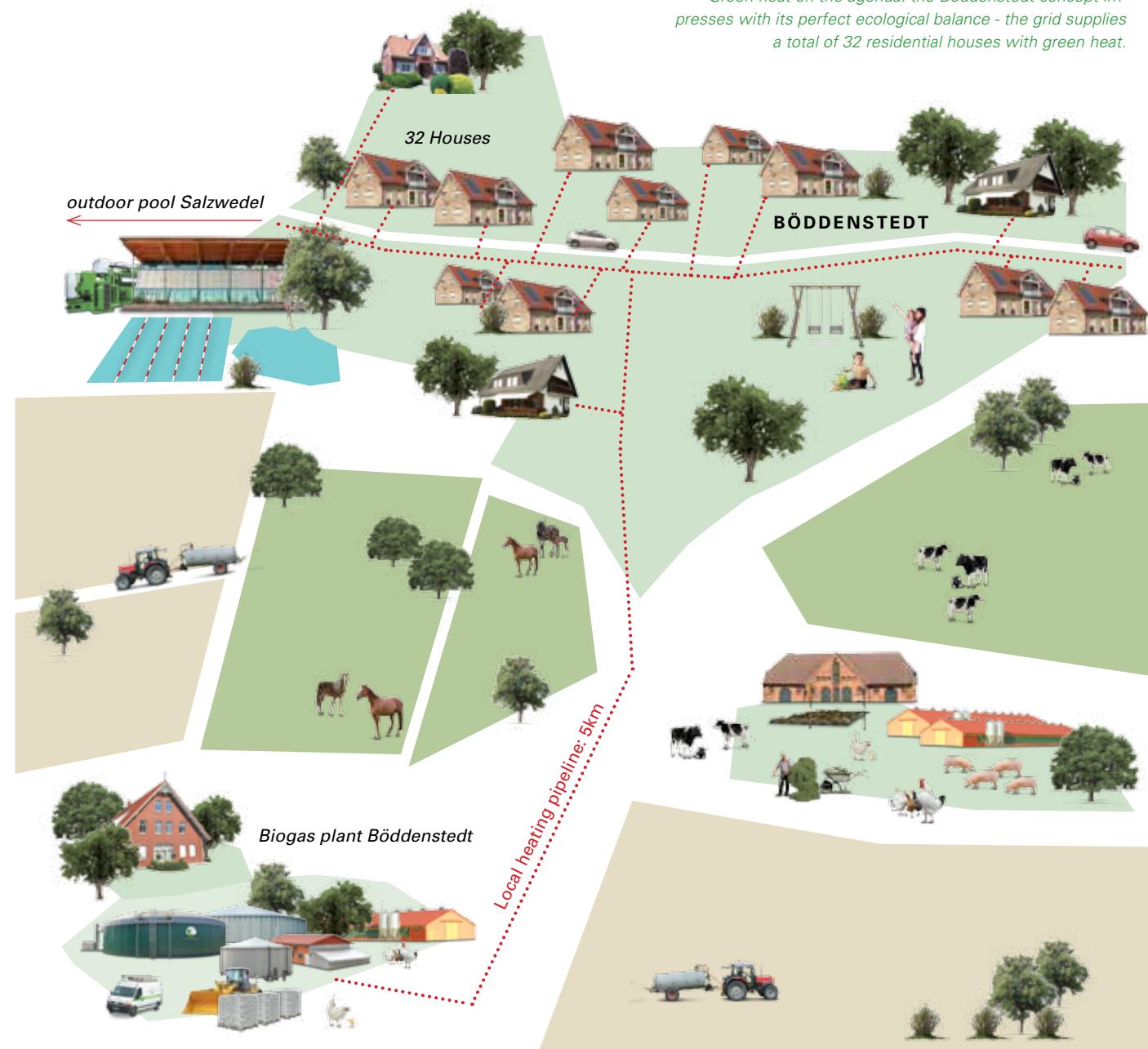
ties: For example, there was a short connection to the power grid operated locally by EON. The neighbouring cowshed could cover the input supply. The operator Detlef Koch procures the majority of the input materials, such as maize and grass silage and slurry, while the rest is supplied by local farms.

"Although the arguments in favour are obvious, there was some resistance to the biogas plant at the beginning", Detlef Koch remembers. But now the scepticism has subsided, and even the

ment of the business strategy of EnviTec Biogas AG since 2007. The subsequent expansion of the company's own facilities is plain to see – just last year, the overall asset portfolio was doubled in size. According to EnviTec CEO Olaf von Lehmden: "Company-owned plant operations at home and abroad are a sensible complement to our plant construction operations and also give us the chance to develop technical innovations using our own plants." In addition to its 100% company-financed plants, EnviTec also offers the option of running plants in cooperation. This model is usually adopted by partners from the ag-

ricultural sector or the local industrial sector who operate their plants independently with the assistance of EnviTec. The term 'company-owned operation' doesn't only refer to the processes of developing and operating the biogas plant. It also covers the processes of loading the digester with substrates, recovering or disposing of the digestates and feeding the resultant energy into the existing electrical, heat or natural gas grid. The first company-financed plant was founded in Germany in 2007, and at the end of last year, EnviTec Biogas had at its disposal an installed capacity of 52 MW<sub>el</sub>. ●

*Green heat on the agenda: the Böddenstedt concept impresses with its perfect ecological balance - the grid supplies a total of 32 residential houses with green heat.*





## Regions

# THE STOWELL FARM

**United Kingdom: Stowell Farm is transforming its business with the help of an EnviTec biogas unit – an approach that has turned the Wiltshire operation into a flagship project for the entire region.**

*With the revenues from his biogas plant, Gavin Davies invested in the sustainable infrastructure of his dairy farm.*



**The aim is ambitious: by the year 2020, 15% of the energy produced in the UK will come from renewable sources** and 1,000 biogas plants are to be connected to the grid. The British government is intent on maximising energy production from converting organic and agricultural waste, but it also wants to generate a significant amount of electricity from renewable raw materials such as maize, grass and sugar beet. A successful example of this is Gavin Davies, who runs a mixed dairy and arable farm in Wiltshire. He called on EnviTec Biogas UK to design, build, commission and service a 499 kW unit at his 1315-hectare Stowell Farm in Pewsey. The plant went live last year, and the investment has paid off for Davies. The business receives 16p per kilowatt hour for the electricity it produces, as well as additional payments under the Renewable Heat Incentive. Meanwhile power used on the farm itself reduces costs. In all, the biogas plant generates an annual income of more than £700,000 for Stowell. "This means that the plant will be depreciated within seven years", says John Day, Sales Manager at EnviTec Biogas UK.

The significant additional income guaranteed by the government in the form of the 20-year Feed in Tariffs allowed the business to make a sustainable investment

in the infrastructure of the dairy farm: including cowsheds, a state-of-the-art milking facility and training rooms. Hundreds of school children, would-be farmers, potential funders and interested neighbours can now experience dairy farming at first hand thanks to a viewing gallery above the milking parlour. Davies is passionate about enhancing the image of agriculture in the eyes of the general public, and regular open days help bridge the gap between farmer and consumer.

"The biogas plant is not only a financial benefit, it also reduces the amount of slurry we have to handle as well as helping to minimise odours," says Davies. Feedstocks include maize and whole-plant silage, but the main input material is slurry from about 500 dairy cows. Some of the electricity generated is used on site, while water drawn from the motor cooling system heats the digester and farm buildings. Davies feeds the remaining energy directly into the National Grid. Surplus heat from the Combined Heat and Power unit is sold to a nearby school and leisure centre. As if these benefits weren't enough, the business uses the digestate left at the end of the process on the land – reducing fertiliser requirements by about 400 tonnes a year. ●

# SMALL PLANTS, BIG OPPORTUNITIES

**Italy: EnviTec is among Italy's top 5 biogas plant providers. EnviTec intends to keep it that way with compact plants too.**

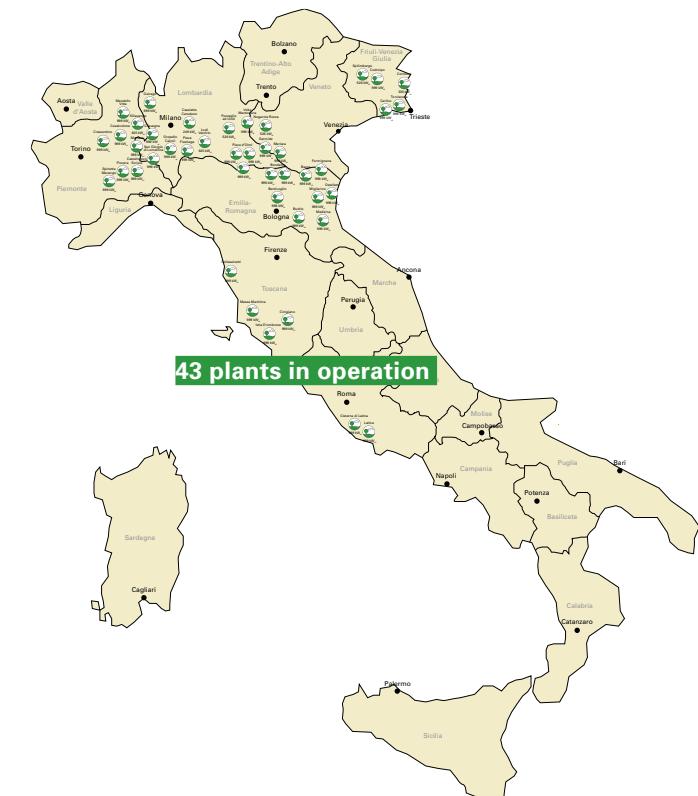


An impressive track record: 23 plants went online in Italy in 2012 – EnviTec construction manager Emilio Petrucci was there for all of it.

**While the Italian biogas market is still young, it has mushroomed to over 900 plants within a short time.**

The plant operators have clearly felt the effects of its ups and downs: After introducing the standard peak load tariff of 28 cent/kWh for injection into the electricity grid, the Italian legislation has now reduced the biogas boom of the past few years and, since 1 January 2013, has placed remuneration for biomass and biogas 'on lower heat'. The new decree divides biogas plants into different performance categories with declining tariffs.

The feed-in tariff for small plants up to 300 kW amounts to up to 27.6 cent/kWh including efficiency premiums for heat and nitrogen. It is valid for a duration of 20 years. "This has drastically changed the current market situation. Small plants are in, not large plants, and animal excrement is the new signpost for the future, not maize. This creates new challenges for all providers. However, we see real opportunities of continuing our past growth in the future, as well", explains Zeno Marani, one of the two Managing Directors of EnviTec Biogas Italia srl, who is in charge of sales and marketing. "Technologically, we're still number 1 in the market. We set new standards and can therefore adapt ourselves to the new framework conditions by offering small plants from 99 to 300 kW with a container design", adds Mario Della Bella, Managing Director for Technology and Design: "With our compact plants and the cutting edge EnviTec technology (p. 18f.), we especially want to acquire new customers in agriculture and improve our market position." Since its market entry in Italy, EnviTec has brought a total of 43 plants with 39.4 MW online, and over half of them in 2012 alone – a huge tour de force. As a result, the company is now positioned among Italy's top five. ●



*The EnviTec success story in Italy began in 2005: After an extensive exploration of the Italian biogas market and its developmental potential, the company started there in 2007 with its first EnviTec office in Romano di Lombardia near Bergamo. After building up a professional core team, the next obvious step was to implement a large-scale marketing campaign to familiarise potential customers with EnviTec. The first two contracts the following year were not long in coming, and things looked up fast, above all thanks to Italy's having the highest feed-in tariff in Europe of 28 cent/kWh. The staff has expanded from 6 by the end of 2009 to its current team of 35. The company's turnover also experienced robust growth, reaching an absolute record of EUR 51.6 million in 2012. Since 2010, EnviTec Biogas is based in Sommacampagna in Verona, which is also home to the EnviTec service company. All activities in Italy are controlled from here.*



Wellness thanks to green heat: the 1415 kW biogas plant in Ribeauvillé supplies energy to the spa of a hotel among other structures.

# WHEN WASTE BECOMES ENERGY ...

... that's when EnviTec once again proves its flexibility when it comes to the utilisation of input materials. French biogas operators are leading the way, setting an ideal example.

France is not only the land of 'haute cuisine', but is statistically proven to be the European country that spends the most money on food. So it makes sense that their food waste should be financially exploited in the best possible way. EnviTec biogas plants are of course ideally equipped for this, and can handle input materials with undreamed-of flexibility.

A successful example of this flexibility is the 1415 kW plant owned by René Van der Meijden, Philippe Meinrad and Noël Adam of Agrivalor Énergie in Alsatian Ribeauvillé. The pioneering plant built by EnviTec in 2012 uses cattle slurry, renewable resources and waste from the food industry. Waste that the industry otherwise needs to dispose of at its own cost can either be used free of charge or even against payment by biogas plant operators for gen-

erating electricity, heat or bio-natural gas. Thanks to the high energy yield in the 'waste to energy' biogas plant used here, the need for fossil fuels is decreasing and the carbon footprint of production plants is improving. In order for organic waste to be transformed into valuable substrates, food that is still packed must first be unpacked and cleaned in a separate system. Here too, EnviTec can offer the required technological assistance: "With a total capacity of 25,000 t/a, the EnviTec pasteurisation plant offers us enormous flexibility in our input materials", says Philippe Meinrad, one of the three operators of the plant in Ribeauvillé. They have already concluded heating contracts with a casino/hotel complex with their biogas plant. A neighbouring housing development is also supplied with heat from the plant.

"Our strategy of attracting attention to our company within France with our own biogas plants while putting our flexibility in recycling to the test has thus proved to be a success", affirms Roel Slotman, Chief Commercial Officer at EnviTec.

Since its market entry, the company has already successfully implemented several projects in France. Another flagship project is the 1063 kW plant in Etreville, Normandy, which is operated by Agri-Energie and uses sludge among other input materials. In agriculture, sludge has been used since time immemorial as a fertiliser. Now both Germany and France face the problem that more sludge is available than can be spread. However, sludge is an excellent fuel when dried out – a

quality which EnviTec has put to use, with sludge now incorporated as an additional option in the company's product range.

EnviTec runs a branch office in France with seven employees and plans to expand its sales: "After all, France is the country with the largest-scale agricultural economy in Europe", says the sales expert Slotman. Over 200 biogas plants are currently either in construction or in operation in France – an increasing tendency. The French government intends in future to increase the number of operated plants to 1,000. According to Slotman: "We therefore see optimal potential and a growing market in the sales of both compact plants and large plants." ●





## A NEW BEGINNING

**USA: First EnviTec biogas plant built across the pond**

*The "Stars and Stripes" in front of a cast base plate: Junior manager Donald N. Jensen III (centre), Thomas J. Lawson, technical manager of the EnviTec branch office in the USA (left) and Patrick Dumpe (right) sharing their excitement about the start of construction of the EnviTec biogas plant.*

**In spring 2013, EnviTec is set to have a true debut in the USA.** The company is entering the US market for the first time with the construction of a 541 kW biogas plant in the state of New York. Simultaneously, a suggestion is being submitted to the senate to support biogas with an investment tax credit to the amount of 30% of the costs for the construction of biogas plants. "For the US market, this would be a great stride in the direction of renewable energies, because the land of 'unlimited opportunities' will in future no longer be independent in terms of its energy resources", emphasises Roel Slotman, Chief Commercial Officer of EnviTec. With the USA, EnviTec has set another milestone in its international expansion. The plant is operated by the

Jensen family, who have been running a dairy farm in Stanley, New York since 1925. The on-site EnviTec project manager, Patrick Dumpe, particularly appreciated the special local circumstances during the construction. "Because the agriculturally vibrant region around the Finger Lakes is structurally comparable to that of EnviTec's headquarters in Lower Saxony, it was almost like playing a home game for us." But EnviTec's compact plants are also ideal, especially for dairy farmers: "Many farmers prefer to use their own input materials and want to control their plants themselves", says Dumpe. In this case the small, yet with a capacity up to 300 kW, compact plants from EnviTec offer a good alternative. ●

## COOPERATION

**Russia: EnviTec signs contract for a joint project – three biogas plants are in planning so far.**

**It's the only region in Russia with both the first certified, operationally ready biogas plants and a fixed feed-in tariff per kilowatt hour for these biogas plants.** The region in question is Belgorod, a highly developed industrial and agricultural region in southwest Russia – about 700 km from Moscow. Here a large number of farms produce a total of 1.5 million tonnes of meat and 15 million tonnes of organic waste each year – ideal conditions for the production of environmentally friendly energy with plants from EnviTec Biogas. For this reason, the company from Lower Saxony has been working since 2012 in cooperation with JSC Razvitie Corporation and LLC AltEnergo, a regional project developer, on designing pilot projects in Russia. The energy service company intends to install about 100 to 150 biogas plants with a capacity of 250 MW around Belgorod and the Central Federal District of Russia. "Thanks to the contract signed by Razvitie Corporation JSC, LLC AltEnergo and EnviTec, we are now entering the Russian market

for the first time", says Hendrik van der Tol, Managing Director of EnviTec Biogas Central Europe. For now, the contract provides for the planning and construction of a total of three biogas plants with an output of 2.4 MW<sub>el</sub> each. ●



*Singing the contract in Belgorod: Viktor Filatov, AltEnergo, Roel Slotman, EnviTec Biogas, Sergey Yudin, Corporation Razvitie (left to right).*

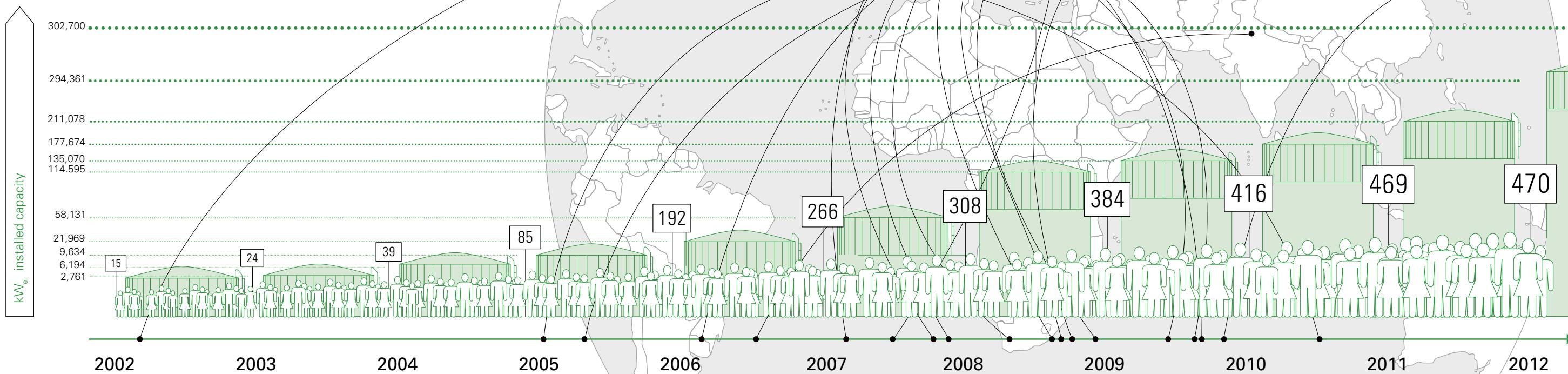


*Three biogas plants in planning: Roel Slotman and Sergey Yudin (left to right) after signing the cooperation agreement.*



Inside the company

# IN RETROSPECT: TEN YEARS OF ENVITEC



Mixing tank



External desulphurisation (fig.), pasteurisation with recooling

Ten years of EnviTec, that's 3652 days full of innovative strength and the development of sustainable models for an energy supply with biogas. Since it was founded 2002, the company has gone from strength to strength in the market. Already in 2004, EnviTec managed the construction of the largest biogas park in Europe – the world's

largest biogas park and the world's largest biogas upgrading plant were soon to follow. The first foreign venture was in 2006, and in 2007 EnviTec conquered the exchange and started company-owned operations. By 2008, EnviTec already had a presence in 13 European countries and in India. EnviTec set new milestones in 2011 with the foundation of EnviTec Energy and Stromkontor – and now with energy marketing. The success story continues: With the first plants in Latvia and the USA, EnviTec is securing additional growth potential for the future, both in the Old World and the New World. ●

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Process steam generation



ORC technology, trace elements

Catalyser technology, Feedcontrol, Kreis-Dissolver (fig.), insulated roofs



EnviThan gas upgrading, HighGester (fig.)



Fill-level measurement, gas hole

# OUR ANNIVERSARY

EnviTec celebrates its anniversary with 450 business partners from around the world



Management in a celebratory mood: A total of 450 guests from all over the world were literally drummed together for the anniversary festivities.



Ceremony with guests in the best of humour.

**From start-up company to number 1 in Europe – this is the success story of EnviTec Biogas.** In 2012 – exactly ten years after the foundation of the company – the 300 MW mark was broken, with EnviTec biogas plants producing electrical energy for 780,000 households, thereby cutting down on a total of 1.2 million tonnes of environmentally harmful CO<sub>2</sub> equivalents. CEO Olaf von Lehmden sums up the company's development: "We have experienced rapid growth, developed innovative technologies and, thanks to our customers, gained more experience than any other company in this sector." Reason enough to take the opportunity to celebrate this success in the form of a ceremony, which took place in Lohne on 29 June 2012. The invitation was accepted by about 450 customers, partners and suppliers from Germany and abroad, as well as the renowned author and journalist Dr. Franz Alt, who took the opportunity as guest speaker to examine the results of the energy transition thus far. In spite of the drastic upheaval faced by the biogas industry, the multi-award winning company can boast a good standing both nationally and internationally. As Europe's leader in the sector, EnviTec and its employees prove themselves equipped for the future – Olaf von Lehmden: "The last ten years have shown that we are flexible enough to cope successfully with crises, to recognise opportunities and to expand our market share." ●



Powerful team, powerful drummer: The company event was accompanied by vigorous drumming.



An interactive drum event provided for a powerfully entertaining evening.



Left to right: Dr. Franz Alt, Olaf von Lehmden and presenter Anne Legat



Dr. Alt:  
"We don't need a half-transition, we need a full transition!"



Employees and customers in a festive mood.



Reinhard Schultz,  
Managing Director of Biogasrat e.V. offered words of gratulation.



Horst Ostendorf, customer from day one





Always ready for action: Martin Siemer, Thomas Steinkamp and Sarah Rohe (from left to right) are part of the worldwide over 100-member EnviTec service team.

# A FEEL-GOOD TEAM

**Thanks to our excellent services, the average efficiency of plants managed by EnviTec is over 90 percent!**

**Leaning back and simply basking in the certainty that everything's running smoothly** – that's exactly what biogas plant operators who rely on the comprehensive service range of EnviTec Service can do. With over 100 employees in Germany and abroad, the company is there to assist its customers in word and deed around the clock, 365 days a year. Usually a call to our 24-hour hotline is enough to re-establish the operational readiness of a plant via remote diagnostics. However, should the fault turn out to be more serious than anticipated, EnviTec promptly dispatches a technician. Thanks to the company's extensive supply of warehouse equipment, the procurement of important spare parts is no problem either. "We can remedy over 90%

of damages within 24 hours", says Martin Brinkmann, Managing Director of EnviTec Service. In 2011, a wholly owned subsidiary of EnviTec was already founded in the growth market Italy. Further bases in Europe are EnviTec Biogas Service s.r.o., which is active in the Czech Republic and Slovakia, and EnviTec Biogas Service UK Ltd. based in England. Additional target markets of the service range include the Baltic states and France. EnviTec operates in these two regions through its project companies, EnviTec Biogas Baltic SIA and EnviTec Biogas France SARL. Customers both in Germany and abroad have the choice between 'per-call maintenance' and comprehensive 'maintenance contracts', in which EnviTec can assume repair-related risks on request. ●



It's always exciting to face new challenges and to be able to help customers. While this may occasionally mean a night assignment for us at the Technical Service, the joy over having solved the problem immediately makes up for having to get up early in the morning.

We make it clear to our customers that the regular servicing and maintenance of all plant components is the only ultimate safeguard against losses of revenue due to downtimes. This is the risk that our standard maintenance keeps to a minimum. Also, our customers can choose between 'per-call maintenance' and comprehensive 'maintenance contracts', in which EnviTec assumes all repair-related risks. We take care of the maintenance of the integrated technology of the co-generation plant along with the auxiliary drives and the gas, pump and mixing technology, and of course the measuring technology too, if requested.

Klaus Kallage, Internal Technical Services, Germany



In the scope of our consulting function, my colleagues and I regularly check all the process parameters of biogas plants. This applies both to the signals which are directly visible on the plant and those coming from laboratory findings.

Taken together, all the values then make an overall picture with which we can assess the condition of the biological processes. The process begins with the examination of the input materials, from where it moves to the sampling and analysis of the fermenter and ends with the fermentation products. On the basis of all the examinations, we can give customers a comprehensive state description of their plants and, if necessary, recommendations for increasing their performance.



EnviTec stands above all for quality for our customers. That's why we have to make sure that we deliver this quality not only in plant construction, but also in maintenance, repair and in the consulting of our customers.

To ensure that all service staff are always up to date, internal training is also important. Technical competence is also of uppermost importance when it comes to establishing our services abroad, of course. Like all the other newly recruited employees, I received training at the EnviTec headquarters in Lohne and was extensively prepared for my new duties. Of course team spirit is also important: Many tasks are simply easier and faster to tackle together, and the efficiency we have as a team also goes down well with the customers. And I can tell that our competence is well-received from 'my' customers in and near Ferrara, whom I have been supporting as a biologist since June 2012.

Elisa Benin, Biological Service, Italy

An important instrument for this is the target/ performance comparison of gas production. This is based on our quality assessment of the input materials and the daily gas production. This enables us to take immediate countermeasures against any deviations. All in all, assessing the development of parameters over time is vital for making an up-to-date state description of the process. As a sampler certified by the Lower Saxony Chamber of Agriculture, I can also test feedstuff and fertiliser, as well as slurry and sludge. This is an option which is taking on increasing importance, especially for our customers in Lower Saxony: In the future, many regulatory bodies are planning only to recognise laboratory results from nutrient studies if the sampling was executed by an independent person with an additional qualification as a sampler.

Thomas Steinkamp, Biological Service, Germany

# WHAT WILL THE FUTURE BRING?



## Versatile use of energy from biogas

Andrea Menke, Sales Controlling, EnviTec Energy

We are pleased that more and more plant operators are deciding on direct electricity marketing with EnviTec Stromkontor. In addition to the balancing energy market and demand-based electricity production, one of our future challenges will be marketing the electricity from biogas plants regionally. Also, EnviTec Energy is opening up entirely new sales channels - for example with biomethane heating contracting. The great thing about both the regional marketing of electricity and business with biomethane is that it's not only farmers who profit from the energy generated from biogas, but also communities, industrial businesses and other customers. In this respect, all parties involved require us to adopt an individual approach - which is very time-intensive for us, but all the more worthwhile for our customers.

What were the greatest challenges over the past year and what will the future bring? We asked around ...



## A healthy foundation in company-owned operations

Jens Bothe, formerly International Controlling, now Company-Owned Operations

The good thing is that, with our overall portfolio in company-owned operations, we are standing on a secure foundation. With a total of 7 MW in company-owned operations in Italy, we have made a great step in the international market, which we would now like to carry over to other markets. United Kingdom and its farmland offer outstanding potential for us in terms of company-owned operations. One task for the future, however, will be dealing with the problem of a limited supply of substrates. This will demand further research and the testing of alternative input materials.



## Finding suitable models for achieving optimal results

Christian Eilert, Technical Sales/Repowering

We can't afford a standstill, because we at the Repowering department want to tease the best out of our customers' plants. Direct electricity marketing is only a year old now, and we aren't even capable yet of grasping the full potential to be gained there, so it's still a very exciting area. We will also continue to work on the efficiency of the use of input materials in order to minimise our customers' raw material expenses. The possibilities offered by repowering are diverse, and with plant construction, service and energy, we as the whole EnviTec team can offer customers a comprehensive care-free package from one source!



## Government statements are putting wind in our sails

Sylvain Mesnard, EnviTec France

1000 biogas plants for a green future in France - we're taking our government at their word and, as one of the top providers, are helping wherever we can to expand the French biogas plant market. With our flagship project Agrivalor, we have already gained an optimal presence in the media. Many biogas experts, politicians, and interested parties have visited the EnviTec-built plant in Alsatian Ribeauvillé and were able to convince themselves of the design's quality and flexibility, particularly with respect to its input technology. However, there is still a lot to do. After all, France is the country with the greatest agricultural economy in Europe and therefore offers an ideal foundation for the all-rounder biogas.

## Working hard to convince farmers

Thomas J. Lawson, Manager of the EnviTec USA branch office

President Obama's Administration is pushing the use of renewable energy thus providing possibilities for technology such as anaerobic digestion. If this American land of opportunity would better embrace alternative energy there may come a day when we could indeed be independent in terms of energy resources. We need to convince farmers of the various advantages of green energy as a means of providing them with greater control of business parameters and for avoiding overhead costs. Many farmers prefer to use their own input materials and to control their own digester facilities. This is where we can score a lot of points with our compact plants.



## Virtually unbeatable when it comes to reliability and punctuality

Emilio Petrucci, Construction Manager, EnviTec Italy

2012 was the super year for Italy, during which our capabilities were put to the ultimate test. In only 12 months, we built 23 plants and connected 22.5 MW to the grid - more than in all the years since we began our activities in Italy put together. We are all very proud that we got it all done right on time at the end - and with the added pressure of the high remunerations expiring at the end of the year on our backs. We have all proved that EnviTec is not only technologically brilliant, but also virtually unbeatable when it comes to reliability and punctuality. A novelty this year was that we also built seven of our own plants despite the highly demanding requirements of our customers. None of this would have been possible if the planning, efficiency and cooperation of our Italian-German teams had not functioned so smoothly. Now we're adapting ourselves to small plants, but we're certain to master this challenge as well.

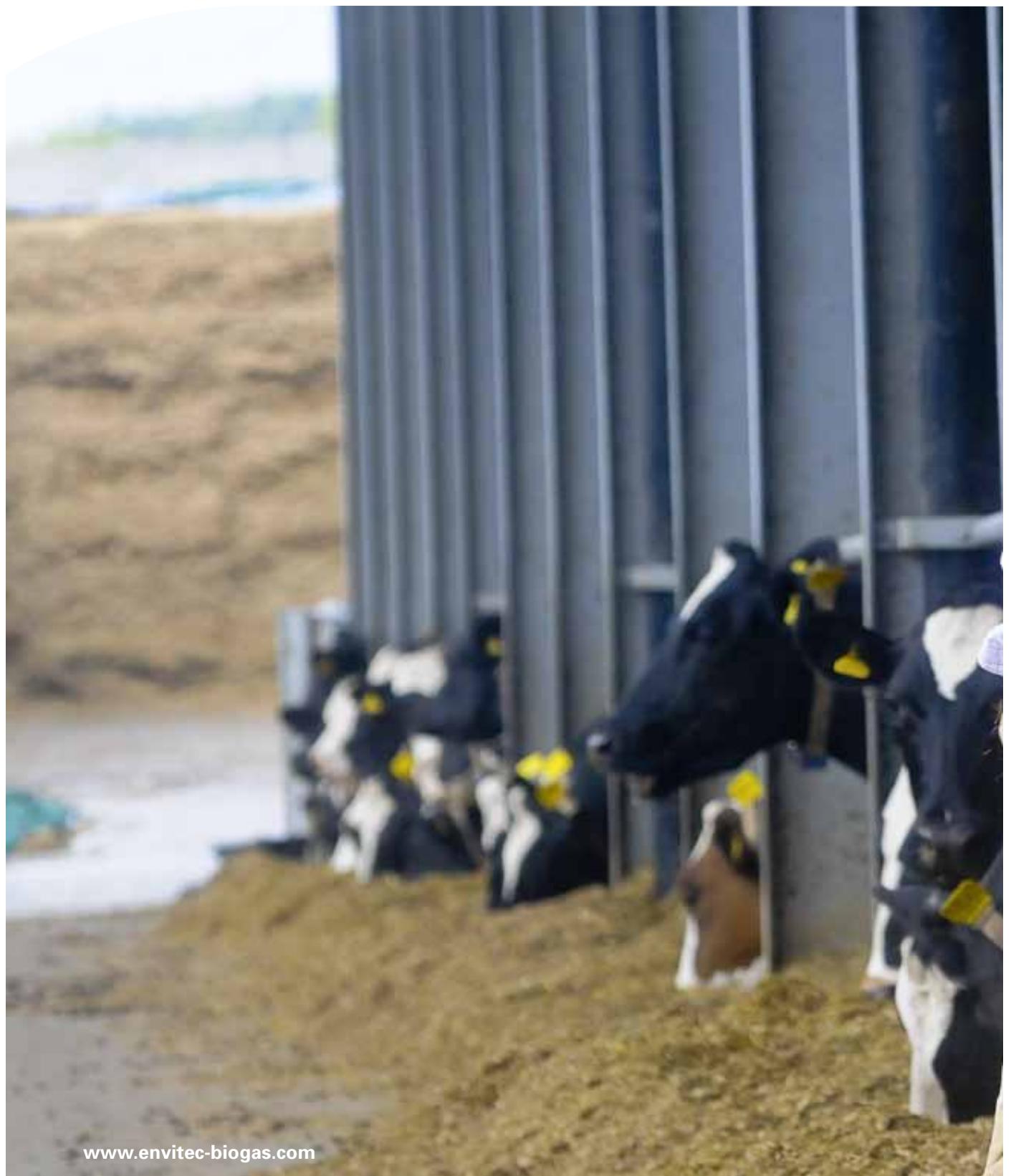


## The law sets the tempo for us

Benjamin Schelleckes, Gas-upgrading team/EnviThan

Over the past year, we had to meet challenges, accept setbacks and recognise opportunities for the future - especially in the area of gas upgrading. The market and the law set the tempo for us in this regard and form the framework for our activities. In the future, our engineering expertise and our creativity will prove how much know-how EnviTec has to offer to get the best results for our customers.







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# FOREWORD OF THE BOARD OF EXECUTIVE DIRECTORS

# DEAR SHAREHOLDERS, CUSTOMERS, EMPLOYEES AND FRIENDS OF ENVITEC BIOGAS AG,

As had been expected, we were unable to repeat the record year 2011 in 2012. This is due to the new Renewable Energy Sources Act (EEG), which came into force in Germany at the beginning of the year. As the biogas sector took some time to adapt to the new and complex conditions, demand in the German biogas market dropped by roughly 80% in 2012 compared to the previous year. Although EnviTec pushed ahead its internationalisation at an early stage and aggressively expanded the operation of own biogas plants, we were able to offset the negative trend in domestic demand only partly. Accordingly, Group sales revenues amounted to EUR 190.5 million in 2012, compared to EUR 243.9 million in the previous year. Our activities outside Germany accounted for EUR 88.7 million (40.6% more than in 2011) of this total, while the operation of own biogas plants accounted for EUR 40.8 million (up 42.7% on the previous year). The decline in Group sales revenues had an adverse impact on the bottom line. Earnings before interest and taxes dropped from EUR 10.8 million to EUR 1.3 million and consolidated net income for the year decreased from EUR 7.5 million to EUR 1.2 million.

## **Germany's move towards green energy depends on a clearly defined legal framework**

2012 was a year of transition for our company and the German biogas industry as a whole. We all have accepted the new EEG and adjusted to the new legal framework by implementing new concepts, new technologies and new services. This situation had been expected. What had not been expected, however, was that politicians from all parties publicly questioned the new legal framework, which was originally meant to remain in place until 2015. In some cases, even the old legal guarantees for existing plants were questioned. This behaviour is even less understandable against the background of the move towards green energy, which is probably the biggest challenge faced by Germany in many decades. If our country wants to master this mega project successfully without putting Germany's status as a place for business at risk, the energy sector does not need lip service but a clear commitment from policy-makers. This is true not only for the renewables sector but also for companies from the fossil sector. Companies which today invest in tomorrow's energy production must be able to rely on the basis of their investment decisions still being in place tomorrow.

## EnviTec is moving forward

It is deplorable that the political discussion is overshadowing the progress that has been achieved by the biogas sector. After all, the sector is moving forward with new technologies and new marketing concepts. The EnviTec Magazine, which forms part of the present Annual Report, allows you to take a look behind the scenes and shows you what we are working on and what plans we have for the future. Gas upgrading, for instance, is a global key technology for the use of biogas, and we are busy trying to reduce both investment and operating costs. Moreover, our development activities focus on repowering and power-to-biogas, to name but a few.

## 2013 marked by uncertainty

The year 2013 will nevertheless be marked by continued political uncertainty. We are working to encourage policy-makers - both through our work in associations and on our own initiative - to return to a reliable energy policy in the short to medium term and to show a clear commitment to the move towards green energy and to present a binding roadmap for the amendment of the EEG. Demand for biogas plants will remain weak this year, especially in Germany, and lead to a sharp drop in sales revenues in EnviTec's Plant Construction segment. This is why we had to implement structural and personnel adjustments in this segment in January 2013. Most of the personnel adjustments were made in the project implementation area, but jobs were also cut in administration and other areas. We very much regret having been forced to cut almost 70 jobs in Lohne and Saerbeck. A sustainable restructuring of the company was indispensable to cope with the market environment and to remain profitable. In addition, all foreign branches will be reviewed for sustainability and efficiency.

We project consolidated sales revenues of between EUR 170 million and EUR 180 million for the year 2013.

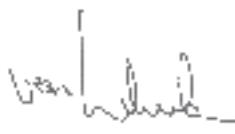
The operating result should be positive in spite of the restructuring charges and the sharp decline in plant construction revenues.

The drop in the Plant Construction segment's sales revenues will partly be offset by the Own Plant Operation, Service and Energy segments. The sales and earnings trend in the Own Plant Operation segment should be very positive in the coming years. Having increased the production capacity from 42 MW to 52 MW in 2012, we project sales revenues of approx. EUR 55 million and a clearly positive result for this segment. In 2013, EnviTec will focus on the optimisation of the existing plants and install at least 5 MW of new capacity, which is less than originally planned. The positive sales trend in the Service segment will continue in 2013, as we intensify our marketing activities in Germany and abroad and improve the quality of our service. Our youngest business segment, Energy, should also grow in the current fiscal year.

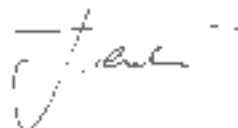
## Special dividend due to reduced capital expenditures

In view of low capital expenditures for the time being, the good liquidity position and the very solid equity ratio of 52% (as of 31 December 2012), the Supervisory Board and the Executive Board will propose a special dividend of EUR 1.00 per share to the ordinary Annual General Meeting on 27 June 2013.

Even after a challenging year 2012 and unsatisfactory political signals, we remain convinced of the medium to long-term growth opportunities in many markets such as the UK, France and the United States. Thanks to its unique positioning as a storable renewable energy source, biogas will play a key role in the move towards green energy. We see ourselves well positioned to master the future tasks in the biogas sector and therefore hope that you will remain loyal to us also during this challenging phase.



Olaf von Lehmden



Jürgen Tenbrink



Jörg Fischer



Roel Slotman

from left to right

**Roel Slotman** International Sales Director (CCO), Enter/Netherlands

**Jörg Fischer** Finance Director (CFO), Weyhe-Erichshof

**Olaf von Lehmden** Chairman of the Board (CEO), Lohne

**Jürgen Tenbrink** Technical Director (CTO), Steinfurt



# REPORT OF THE SUPERVISORY BOARD

# DEAR SHAREHOLDERS,

The Supervisory Board of EnviTec Biogas AG closely monitored the performance of the Group in the past fiscal year. 2012 was a challenging year, which we closed with an operating result of EUR 1.3 million and net income of EUR 1.2 million. Following on from the exceptional year 2011, when the biogas industry benefited from projects brought forward to evade the upcoming amendments to the Renewable Energy Sources Act, 2012 was characterised by a sharp drop in demand in Germany as well as by uncertainty about the future energy policy. The positive trends outside Germany and in the company's Own Plant Operation segment were unable to fully offset this slump in domestic demand. 2013 being an election year, no stable framework conditions for the German biogas sector can be expected. This forced EnviTec Biogas to respond accordingly, which is why the company decided to implement structural and personnel adjustments in the Plant Construction segment in early 2013. These measures are indispensable for the sustainable success of the company and are backed by the Supervisory Board.

## Activity report of the Supervisory Board

In the fiscal year 2012, the Supervisory Board again performed all controlling and advisory tasks imposed on it by law, the statutes, the rules of procedure and the German Corporate Governance Code. We continuously monitored the Executive Board and provided it with assistance and advice. The Supervisory Board was involved at an early stage and in great detail in all decisions that were of fundamental importance for the company. To this end, the Executive Board regularly,

promptly and comprehensively provided us with oral and written information about all relevant events. The reports were submitted in accordance with the requirements of section 90 para. 2 of the German Stock Corporation Act (AktG). Following thorough consultation, the Supervisory Board approved all transactions requiring its consent.

The Executive Board and the Supervisory Board liaised regularly also in between the meetings. Due to the detailed reports provided by the Executive Board, we are convinced that the company and the Group are managed lawfully, correctly and efficiently. We saw no need to exercise our audit rights pursuant to section 111 para. 2 of the German Stock Corporation Act. No conflicts of interest of members of the Executive Board or the Supervisory Board that require immediate reporting to the Supervisory Board and must be disclosed to the Annual General Meeting occurred in the past fiscal year.

## Formation of committees

As the Supervisory Board consists of only three members, no committees were formed in 2012. All issues that would have been addressed by committees were discussed by the full Supervisory Board. Moreover, the Supervisory Board is convinced of the efficiency of its work. Pursuant to section 100 para. 5 AktG RegE BilMoG, at least one independent member of the Supervisory Board must have special accounting or auditing knowledge. This task is performed by our member Hans-Joachim Jung.

## Meetings and main aspects of the consultations

The Supervisory Board held five ordinary and one constituent meeting in the fiscal year 2012. All meetings were attended by all members of the Supervisory Board. Our consultations focused on matters of strategic corporate development as well as the Group's sales, earnings and staff situation. We also discussed the issue of a note loan and assisted in the decision to change the stock exchange segment.

At the meeting on 13 April, we thoroughly discussed the effects which the agreement we reached with a former key account will have on the financial position of EnviTec. We also discussed the issue of a note loan as well as the details of the latter.

At the meeting on 24 April, the financial statements for the fiscal year 2011 was examined in detail and finally endorsed. We also discussed the issue of a note loan to finance the growth of the Own Plant Operation segment. Finally, we defined the agenda for the Annual General Meeting on 24 July 2012.

At the meeting on 23 July, the results of the first three months were presented to the Supervisory Board, and the Executive Board provided an outlook on the 6-month results. Moreover, Alfred Gayer, Managing Director of the subsidiary, EnviTec Energy, explained the business model and the objectives of the new unit in detail.

At the constituent meeting of the new Supervisory Board on 24 July, Bernard Ellmann and Hans-Joachim Jung were re-elected Chairman and Vice Chairman of the Supervisory Board of EnviTec Biogas AG.

At the meeting on 19 September, the Executive Board outlined the current political situation with regard to the tariffs for biogas in Germany and the implications for EnviTec Biogas AG, which were then discussed thoroughly. In addition, we addressed the status of the investments in the Own Plant Operation segment in Italy. The first long-term contract on the supply of biomethane to an energy service provider was also discussed at the meeting.

The last Supervisory Board meeting of the year 2012 was held on 5 December and was dedicated to change: after discussing and analysing the results for the year,

the Executive Board presented the proposed change of segment at the Frankfurt Stock Exchange, which was then discussed with an open outcome. In the context of budget planning for the fiscal year 2013, we also maintained a close dialogue with the Executive Board, which covered the possible restructuring measures in the Plant Construction segment as well as the potential optimisation of the operational cost structure.

On 28 December, the Supervisory Board approved the Executive Board's resolution regarding the previously discussed change from the Prime Standard to the Entry Standard of the Frankfurt Stock Exchange.

## Corporate governance and declaration of conformity

In the fiscal year 2012, the Supervisory Board again devoted a great deal of attention to compliance with the German Corporate Governance Code as well as EnviTec's ongoing progress in this respect. On 24 April 2013, the Executive Board and the Supervisory Board jointly issued a declaration of conformity pursuant to section 161 of the German Stock Corporation Act (AktG), which was made available to the shareholders on the company's website. In accordance with the German Corporate Governance Code, the Supervisory Board obtained a declaration of independence from the auditors. Besides the audit as such, the auditors also provided tax advice to the company abroad. Information on corporate governance at EnviTec can be found in the Corporate Governance Report on page 15 of this Annual Report.

## Audit of separate and consolidated financial statements

The annual financial statements of EnviTec Biogas AG, which were prepared by the Executive Board in compliance with the German Commercial Code, the consolidated annual financial statements, which were prepared in compliance with the International Financial Reporting Standards (IFRS) pursuant to section 315a of the German Commercial Code, and the combined consolidated management report were audited by auditors Rödl & Partner GmbH. In accordance with section 317 para. 4, the audit also covered the measures taken by

the Executive Board to ensure the early identification of risks that could jeopardise the company's performance and continued existence. The auditors were commissioned in accordance with the resolution passed by the Annual General Meeting on 24 July 2012. The auditors reported in writing on the results of their audit, which led to no objections. The separate and the consolidated financial statements received the auditors' unqualified audit opinion, which can be found on page 108.

All members of the Supervisory Board received the annual accounts and the audit reports in good time. These documents were exhaustively discussed at the Supervisory Board meetings on 24 and 29 April 2013. This meeting was also attended by the auditors, Wirtschaftsprüfungsgesellschaft Rödl & Partner GmbH, and by the Executive Board, who discussed the key results of the audits and answered additional questions of the Supervisory Board members.

Following a thorough review of the separate and the consolidated financial statements as well as the combined Group management report, we approved the audit result of the auditors as well as the separate and the consolidated financial statements with a resolution adopted by telephone on 29 April 2013. The separate and the consolidated financial statements have thus been endorsed. After an own examination the Supervi-

sory Board supports the proposal of the Management Board for the allocation of the retained profit. The Supervisory Board considers the Executive Board's profit appropriation proposal reasonable, and approves the proposal of the Executive Board, to pay a special dividend of 1.00 Euro per eligible share.

At the meetings on 24 and 29 April 2013, we also thoroughly reviewed the Executive Board's related party disclosures pursuant to section 312 AktG. No objections were raised as a result of this review. We endorse the result of the audit performed by the auditors and raise no objections against the Executive Board's related party disclosures.

We would like to thank all employees and the Executive Board for their great commitment in the past fiscal year. Even as a market leader, EnviTec Biogas cannot fully isolate itself from the current difficult market environment, but the company rests on a solid foundation, which will allow it to continue seizing the opportunities that arise.

Lohne, 29 April 2013



Bernard Ellmann  
Chairman of the Supervisory Board

from left to right

**Hans-Joachim Jung** Vice Chairman  
**Bernard Ellmann** Chairman  
**Michael Böging**



# CORPORATE GOVERNANCE REPORT

The Executive Board and the Supervisory Board remained fully committed to good corporate governance in the fiscal year 2012. Both Boards endorse the principles of the German Corporate Governance Code and aim to manage the company in a responsible manner which reinforces the trust placed in us by our employees, investors, customers and the general public.

The Executive Board and the Supervisory Board repeatedly addressed matters of corporate governance in the past fiscal year and jointly issued an updated declaration of conformity pursuant to section 161 of the German Stock Corporation Act (AktG) on 18 April 2013. According to this declaration, the company complies with most of the recommendations of the Code as amended on 15 May 2012, save for seven justified exceptions relating to size, structure or other company-specific circumstances. The declaration has been made permanently available to the public on the company's website.

#### **The corporate governance declaration required pursuant to section 289a of the German Commercial Code (HGB)**

can be found on our website at

[WWW.ENVITEC-BIOGAS.DE/CORPORATE-GOVERNANCE](http://WWW.ENVITEC-BIOGAS.DE/CORPORATE-GOVERNANCE)

## **Shareholders and Annual General Meeting**

Each share in EnviTec Biogas AG grants one vote. The company's shareholders exercise their voting rights at the Annual General Meeting, which is held at least once a year. The voting right may be exercised personally or through a designated proxy provided by the company who is bound by instructions or through an authorised representative. All documents that are relevant for the Annual General Meeting are made available at an early stage at [WWW.ENVITEC-BIOGAS.DE/INVESTOR-RELATIONS/HAUPTVERSAMMLUNG](http://WWW.ENVITEC-BIOGAS.DE/INVESTOR-RELATIONS/HAUPTVERSAMMLUNG). Subsequent to the AGM, the attendance figures and the results of the votes are also published on this page.

About 85% of the share capital was represented at the Annual General Meeting in Lohne on 24 July 2012. The shareholders approved all items on the agenda, with over 99% of the shareholders releasing the Executive Board and the Supervisory Board from liability for the

previous fiscal year. The shareholders also approved the profit appropriation proposal. Moreover, Bernard Ellmann, Hans-Joachim Jung and Michael Böging were re-elected to the Supervisory Board for another five years.

## **Close cooperation between the Executive Board and the Supervisory Board**

Being a German joint stock company, EnviTec Biogas AG has a dual management and supervisory structure. The Executive Board has sole responsibility for managing the company while benefiting from the advice of, and supervision by, the Supervisory Board. Both bodies are committed to trusting and efficient cooperation.

In the fiscal year 2012, the Executive Board apprised the Supervisory Board regularly, without delay and comprehensively of all relevant issues related to planning, business development and the situation of the Group. This also included the risk situation, risk management and compliance. The exchange, particularly between the Chairman and the CEO, also took place regularly between meetings. No conflicts of interest of members of the Executive Board or the Supervisory Board that require immediate reporting to the Supervisory Board occurred in the fiscal year.

## **Executive Board**

The Executive Board of EnviTec Biogas AG is composed of four members, namely Olaf von Lehmden, Jörg Fischer, Jürgen Tenbrink and Roel Slotman. A code of conduct defines the responsibilities of the individual members and contains rules for their cooperation. Its tasks include the strategic positioning and ongoing development of the company in consultation with the Supervisory Board. The Executive Board is bound by the company's interests and committed to its sustainable performance. In addition, the Executive Board is responsible for compliance with applicable laws and regulations as well as for appropriate risk management and risk controlling in the company.

EnviTec Biogas AG does not comply with clause 5.1.2 of the German Corporate Governance Code, which recommends specifying an age limit for the members of the Executive Board. This would limit the Supervisory Board's choice of suitable candidates.

## Supervisory Board

The Supervisory Board of EnviTec Biogas AG continues to be composed of Bernard Ellmann, Hans-Joachim Jung and Michael Böging. They were re-elected for another five years at the Annual General Meeting on 24 July 2012. The Supervisory Board supervises and advises the Executive Board in managing the company in accordance with the provisions of the German Stock Corporation Act, the statutes and the code of conduct. It appoints the members of the Executive Board and engages in long-term succession planning. The Supervisory Board is directly involved in all fundamental corporate decisions, as they require its approval.

The members are elected by the Annual General Meeting and are exclusively bound by the interests of the EnviTec Biogas Group in their decisions. Every member of the Supervisory Board must disclose conflicts of interest to the Supervisory Board. In its report, the Supervisory Board informs about conflicts of interest and how they were addressed. Details of its activities and decisions in the past fiscal year are described in the report to the Annual General Meeting on pages 11 to 14 of this Annual Report.

Pursuant to section 100 para.5 AktG RegE BilMoG, at least one independent member of the Supervisory Board must have special accounting or auditing knowledge. This function is performed by Hans-Joachim Jung. No former members of the Executive Board sit on the Supervisory Board.

Due to the small number of members, no committees were formed, as this would not increase the efficiency of the work of the Supervisory Board.

## Shares held by members of the Executive Board and the Supervisory Board

As of the balance sheet date, the members of the Executive Board held shares in EnviTec Biogas AG:

Shares	12/31/12	12/31/11
von Lehmden Beteiligungsgesellschaft	7,288,317	7,288,317
Jörg Fischer	500	500
Roel Slotman	7,000	7,000
Jürgen Tenbrink	1,800	1,800

Supervisory Board member Hans-Joachim Jung held 1,000 shares in EnviTec Biogas AG as of the balance sheet date. Supervisory Board members Bernard Ellmann and Michael Böging held no shares in Envitec Biogas AG as of the balance sheet date.

## Director Dealings

There were no reportable securities transactions as defined in section 15a of the German Securities Trade Act (WpHG) in 2012.

## Transparency

We rely on timely and continuous communication to inform our shareholders, analysts, the media and the interested public about the current business situation of EnviTec Biogas. All corporate news and ad-hoc releases and other publications that are relevant for the capital market are published on our website in German and English. A continuously updated financial calendar with important dates is also made available on our website [www.envitec-biogas.de](http://www.envitec-biogas.de). In the fiscal year 2012, EnviTec Biogas AG published one ad-hoc release pursuant to section 15 of the German Securities Trading Act (WpHG) on the planned change of the stock exchange segment, no notification pursuant to section 26 para. 1 WpHG and no notification about directors' dealings pursuant to section 15a WpHG.

## Accounting and auditing

The Executive Board prepared consolidated interim reports for the periods ended 31 March, 30 June and 30 September as well as the consolidated annual financial statements for the fiscal year ended 31 December 2012 in accordance with International Financial Reporting Standards (IFRS). All reports were published within the deadlines defined in the German Securities Trading Act and the Frankfurt Stock Exchange's regulations for the Prime Standard.

The audit for the fiscal year 2012 was carried out by the auditors elected by the Annual General Meeting on 24 July 2012, Rödl & Partner GmbH, Wirtschaftsprüfungsgesellschaft, as well by the Supervisory Board. In accordance with the provisions of the German Corporate Governance Code, the Supervisory Board satisfied itself of the auditor's independence prior to the audit. The auditors participated in the Supervisory Board's consultations about the separate and the consolidated financial statements and reported on the key results of their audit.

Lohne, April 2013



**On behalf of the Supervisory Board of  
EnviTec Biogas AG**

Bernard Ellmann (Chairman)



**On behalf of the Executive Board of  
EnviTec Biogas AG**

Olaf von Lehmden (CEO)

## Declaration of conformity pursuant to section 161 AktG

The German Corporate Governance Code adopted in February 2002 makes recommendations and suggestions for the management and supervision of German listed companies in relation to shareholders and the Annual General Meeting, Executive Board and Supervisory Board, transparency, accounting and auditing. Stock corporation law requires the Executive Board and the Supervisory Board of a listed company to submit an annual declaration stating which of the recommendations of the Code have not been applied as well as the reasons for non-compliance. The Code was last amended on 15 May 2012.

The Executive Board and the Supervisory Board of EnviTec Biogas AG herewith issue the declaration of conformity with the applicable version of the Code pursuant to section 161 of the German Stock Corporation Act (AktG). The Executive Board and the Supervisory Board are committed to the goals of the Code and promote corporate governance and control that is geared to increasing the enterprise value in a responsible, transparent and sustainable manner.

Since the last declaration of conformity of April 2012, the company has largely complied with the recommendations of the German Corporate Governance Code and intends to do so in future. The recommendations with which the company did not comply as well as the reasons for non-compliance are described below:

1. Section 3.8 of the Code recommends including a deductible of at least 10% of the loss up to at least the amount of one and a half times the fixed annual compensation in any D&O insurance. Such a deductible has not been agreed so far and it is not intended to do so in future. The company took out D&O insurance for the Supervisory Board without a specific deductible several years ago. The company is of the opinion that a deductible will not add to the responsible action of the Supervisory Board.
2. Pursuant to Section 4.2.3 paragraph 4 of the Code, care shall be taken, when concluding Executive Board

contracts, to ensure that payments made to an Executive Board member on premature termination of their contract do not exceed the value of two years' compensation (severance payment cap) and compensate no more than the remaining term of the contract; payments promised in the event of premature termination of an Executive Board member's contract due to a change of control shall not exceed 150%. The current Executive Board contracts do not contain such caps and limits. Premature termination of an Executive Board contract is possible only by mutual agreement. Even if the Supervisory Board insists on agreeing a severance payment cap when signing or renewing Executive Board contracts, it cannot be ruled out that the severance payment cap will be negotiated on the occasion of the Board member's resignation.

3. Sections 5.1.2 paragraph 2 and 5.4.1 paragraph 2 of the Code recommend that an age limit for the members of the Executive Board and the Supervisory Board be specified. The Executive Board and the Supervisory Board do not appreciate why qualified people with comprehensive professional and private experience should not be eligible for reasons of age alone.
4. In accordance with the statutes of EnviTec Biogas AG, the company's Supervisory Board consists of three members. Given that a Supervisory Board committee must have at least three members, the company does not comply with section 5.3 of the Code, according to which committees should be formed.
5. According to section 5.4.1 paragraph 2 of the Code, the Supervisory Board shall specify concrete objectives regarding its composition which, whilst considering the specifics of the enterprise, take into account the international activities of the enterprise, potential conflicts of interest, the number of independent Supervisory Board members as defined in section 5.4.2 of the Code, an age limit to be specified for the members of the Supervisory Board and diversity. These concrete objectives shall, in particular, stipulate an appropriate degree of female representation. In our opinion, the present composition of the Supervisory Board, whose members have long-standing manage-

ment experience in a large international corporation, in the energy supply sector and in agricultural production and are, without exception, considered by the Supervisory Board to be independent as defined in section 5.4.2 of the Code, ideally reflects the main activities of EnviTec Biogas AG. The Supervisory Board views the further promotion of diversity and, in particular, the appointment of women to the Supervisory Board positively but has not formulated any concrete objectives yet. As in the past, candidates for the Supervisory Board will be chosen exclusively on the basis of their respective qualifications.

6. Contrary to section 5.4.6 paragraph 1 of the Code, the compensation of the members of the Supervisory Board does not take into account the vice chair and – in the absence of any committee – the membership in committees. A higher compensation for the Vice Chairman is not regarded as necessary as long as this function does not entail a higher workload.
7. Contrary to section 7.1.2 of the Code, the company does not disclose the consolidated financial statements within 90 days of the end of the financial year and the interim reports within 45 days of the end of the respective reporting period but within the statutory deadlines.

Lohne, April 2013



**On behalf of the Supervisory Board of  
EnviTec Biogas AG**

Bernard Ellmann (Chairman)



**On behalf of the Executive Board of  
EnviTec Biogas AG**

Olaf von Lehmden (CEO)



# THE SHARE

## The capital market environment

The German stock market performed quite positively in 2012. The DAX benchmark index crossed the psychologically important 7,000 points mark in the first quarter of 2012 but was unable to maintain this level in the second quarter, which was attributable to investor uncertainty caused by the European debt crisis. The DAX strengthened once more in the third and fourth quarter when passing the 7,000 points mark again. The index closed the year at 7,612 points on 28 December 2012 and with +25.0%, the performance for the full year 2012 was positive.

The TecDax technology index moved in sync with the benchmark index in the reporting period. After a successful start to the year 2012, the index crossed the 800 points mark. In the following five months, the general uncertainty in the German markets had an adverse impact on the second-tier stocks and led to increased volatility. The TecDax temporarily dropped to 709 points but picked up again by the end of the year, gaining 18.0% in the year as a whole. Similar to the prior year, the ÖkoDAX, which is the relevant index for EnviTec Biogas AG, showed an opposite trend to the DAX. After a relatively stable first quarter, the ÖkoDAX declined continuously and lost over 50% in the course of the year.

Both the German and the European capital market were strongly influenced by the European debt crisis until the third quarter. But the European Central Bank's first interest rate cut to below 1% in July stimulated the stock markets. Renewables stocks showed a weak performance due to the amended Renewable Energy Sources Act (EEG) and the unclear signals sent by the government with regard to the implementation of the move towards green energy.

## The EnviTec Biogas share

The EnviTec share underperformed the market in 2012 and lost 23% in the course of the year. The share opened the year at EUR 9.74, which was the highest price of the year. The share hit a low of EUR 6.47 in early June but recovered significantly within only a few days and closed the first half-year at a high of EUR 9.35. Until the end of the reporting period, the share price moved within a range of EUR 7 to EUR 8.97. The share closed the year at EUR 7.25 on 28 December 2012. Based on 15,000,000 shares outstanding, this was equivalent to a year-end market capitalisation of EUR 108.75 million. A total of 637,400 EnviTec shares were traded (Xetra) in the reporting period, which represents an average daily turnover of 2,442 shares.

## Annual General Meeting approves amendment of the statutes

The ordinary Annual General Meeting of EnviTec Biogas AG was held in Lohne on 24 July 2012. The main items on the agenda, e.g. the release from liability of the Executive Board and the re-election of Supervisory Board members Bernard Ellman, Hans-Joachim Jung and Michael Böging for another five years, were approved by the majority of the shareholders. The Annual General Meeting also approved the Executive Board's profit appropriation proposal. As desired by the majority of the shareholders, the net income for the year was therefore retained to further strengthen the company's financial foundation.

## Investor relations at EnviTec Biogas

In fiscal 2012, we again attached great importance to ongoing, timely and comprehensive communication with both existing and prospective shareholders. 2012 was marked by regular talks and meetings with institutional and private investors, e.g. at the Equity

Forum in Frankfurt.

With regard to the upcoming relisting in the Entry Standard segment in 2013, we will continue to overfulfil the applicable information requirements in order to offer our investors a high level of transparency.

The share of EnviTec Biogas AG was covered by Close Brothers Seydler and Warburg Research in 2012.



### Basic information on the share

ISIN	DE000A0MVL8
Stock exchange symbol	ETG
Trading segment	Prime Standard / ÖkoDAX
Industry	Renewable Energy
Annual high	9.74 EUR
Annual low	6.47 EUR
Year-end price	7.25 EUR
Number of shares	15,000,000 shares
Market capitalisation at year-end	EUR 108.75 million
Earnings per share	0.08 EUR
Proposed dividend per share	1.00 EUR

Analysts' valuations			
Date	Institute	Recommendation	Price target (EUR)
30.11.2012	Close Brothers Seydler	Buy	8.70
30.11.2012	Warburg Research	Buy	11.00
12.09.2012	Close Brothers Seydler	Buy	8.70
31.08.2012	Warburg Research	Buy	11.00
01.06.2012	Close Brothers Seydler	Buy	9.00
30.04.2012	Close Brothers Seydler	Buy	11.00
27.04.2012	Warburg Research	Buy	11.20

Shareholder structure (as at 31 Dec, 2012)			
von Lehmden Beteiligungs GmbH	7,288,317	48.60 %	
TS Holding GmbH	3,280,000	21.86 %	
Ruhe Verwaltungs GmbH	1,950,000	13.00 %	
Free float	2,331,683	15.54 %	
Own shares	150,000	1.00 %	
Total number of shares	15,000,000	100 %	

# COMBINED MANAGEMENT REPORT

of the EnviTec Group  
and EnviTec Biogas AG

In accordance with section 298 para. 3 in conjunction with section 315 para. 3 of the German Commercial Code (HGB), the management report for the separate financial statements of EnviTec Biogas AG for the year ended 31 December 2012 was combined with the management report for the consolidated financial statements for the year ended 31 December 2012.

## General Information

### Structure of the Group

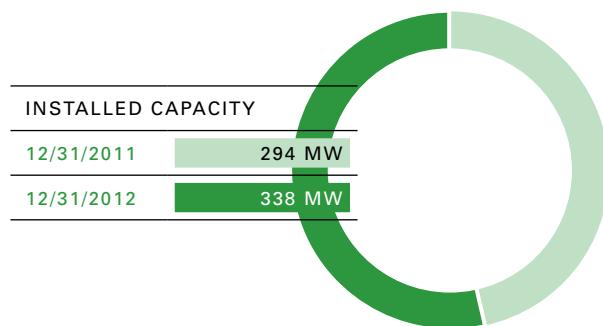
EnviTec Biogas AG headquartered in Lohne, Germany, is one of the leading manufacturers and operators of biogas plants. We cover the entire value chain for the production of biogas, from planning through turnkey construction to operation and biological services. Our customer-oriented construction has set standards in terms of reliability and profitability. EnviTec plants can produce clean energy from all types of feedstock materials - from organic waste to renewable resources. Our subsidiaries, joint ventures and sales offices give us a presence in 20 countries.

The Group is structured into four business segments: Plant Construction, Own Plant Operation, Service and Energy. All segments are closely integrated in strategic, technical and financial terms. The Group's economic performance is mainly determined by the Plant Construction segment and the direct and indirect subsidiaries in Germany and abroad. The Plant Construction segment largely represents the business activity of the parent company, EnviTec Biogas AG. The business purpose of the parent company also includes the holding of equity investments in the Own Plant Operation segment as well as start-up financing of the respective project companies. Wherever information on the performance and business activity of the Plant Construction segment is provided on the following pages, this information also applies to the separate financial statements of EnviTec Biogas AG.

In 2012, the basis of consolidation comprised 143 fully-consolidated companies, 9 more than in the previous year.

### Plant Construction

The business segment of EnviTec Biogas AG builds biogas plants for customers (Plant Construction segment). We plan the plant, build it and start up the production of biogas. Our product portfolio covers the complete value chain of biogas plant engineering for plants from 370 KW<sub>el</sub>. We rely on a modular design approach using standardised elements, which can be combined to meet the respective local requirements. This means that we offer customised solutions and tried-and-tested technology at the same time. The advantages include faster plant start-up, high operational safety and low operating costs. At the end of 2012, EnviTec had an installed base of 338 MW, with another 11 MW under construction.



### Own Plant Operation

The Own Plant Operation segment handles the generation of electricity, heat and gas in the company's own biogas plants in Germany and abroad. This is usually done in cooperation with local partners from the agricultural or energy sectors. These partnerships are characterised by a clear division of tasks, with every partner concentrating on their respective strengths. The local partner makes available the site, procures the feedstock materials and assumes responsibility for the operation of the plant. EnviTec is in charge of project planning and turnkey plant construction. Once the plant is in operation, we perform all maintenance work, provide biological services and take care of commercial management. Our partners usually are farmers who operate the plants on their farms. We also cooperate with local authorities, investment companies, industrial corporations and energy utilities. Outside Germany, our own projects are an important door-opener to convince potential local customers of the economic and ecological benefits of biogas production and our expertise.

The integration of our technological knowledge with the expertise of our regional partners results in high efficiency and attractive margins for EnviTec and its partners. The Own Plant Operation segment ideally complements the Plant Construction segment thanks to its steady cash flows.

### Energy segment

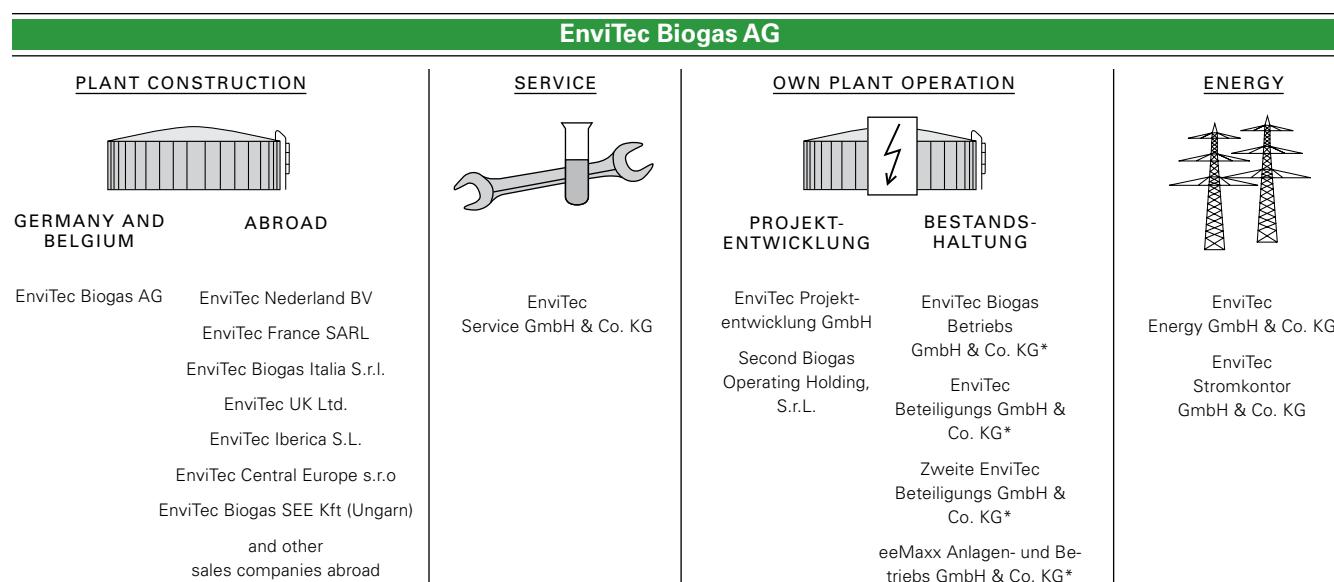
The new Energy segment took up operations in early 2012. EnviTec Energy GmbH & Co. KG offers heat customers what we call "contracting models". Under these models, EnviTec plans the local generation of heat from internally produced biomethane in efficient CHP plants, which is sold at favourable prices under long-term supply contracts. This allows industrial, commercial and municipal customers to improve their carbon footprint through the use of green heat. The new subsidiary, EnviTec Stromkontor GmbH & Co KG, also operates under the umbrella of EnviTec Energy. This subsidiary combines the capacity of a large number of biogas plants into a virtual power plant, markets this "EEG electricity" in accordance with actual requirements and offers balancing energy to the transmission network operators. The energy is marketed in cooperation with AXPO Deutschland GmbH, a subsidiary of Swiss electricity company AXPO Holding AG.

### Service segment

The Service segment is characterised by recurrent revenues and provides all services related to the operation of a biogas plant. Our experts take care of starting up the plant and constantly control the biological processes. In our lab, feedstock materials and fermentation residues are checked for optimum quality so as to make recommendations on boosting the plant's efficiency. Our range of services also includes regular plant inspections and training of the operators and their employees. EnviTec Biogas also offers partial maintenance services, which are charged by actual expense, or full maintenance including assumption of the repair risk. Regular maintenance reduces the downtimes and is therefore key to the profitable long-term operation of a biogas plant. Our customers benefit from the expertise of our highly qualified experts, who are available 24/7.

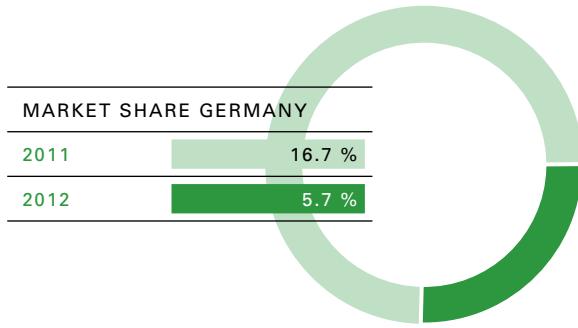
### Strategy and competition

Over the past years, we have attained a leading position in the fast-growing biogas market. Our strategic objective is to achieve sustainable growth and to expand our market position as an integrated supplier and operator of biogas plants. In this context, we attach top priority to the satisfaction of our customers and their involvement



\* Various project companies of biogas plants. Details of participation and minimum holding requirement see notes p. 72 et seq.

in the ongoing development of our plants in accordance with their wishes and requirements. The short to medium-term strategic positioning is strongly influenced by the ongoing discussion about the legal framework.



Germany is the largest biogas market in the world. Accordingly, competition in this market is very intense. The competitive environment is characterised by a large number of plant manufacturers. In terms of the new biogas plants installed in Germany in 2012 (182 MW of capacity according to the German Biogas Association (FVB)), EnviTec still considers itself to be one of the leading plant manufacturers, although its market share of approx. 5.7% (previous year: 16.7%) declined sharply. A total electrical output of 255 MW means that about 8% of all grid-connected biogas plants in Germany come from EnviTec (projected total output of 3,179 MW; previous year: 2,997 MW according to FVB).

The European markets for biogas plants are very heterogeneous, which is primarily due to the different subsidisation models. Italy, France and the UK are currently the most attractive markets for EnviTec. We are closely monitoring developments in the individual countries so as to be able to respond in a timely manner to changes in the operating environment.

We have defined the following cornerstones for sustainable growth:

### Exploiting opportunities in Germany

Germany remains the world's largest and most important biogas markets. The amended Renewable Energy Sources Act (EEG), which came into force at the beginning of 2012, led to a dramatic slump in demand for biogas plants. Going forward, the production of electricity in biogas plants in accordance with actual requirements and the direct marketing of the electricity generated will

gain importance. In response to these developments, we have established the new Energy segment to exploit the opportunities of energy marketing. Apart from the promotion of heat and electricity generation from biogas, the feeding of biomethane into the public gas grid will continue to gain importance. As had been projected by EnviTec, the market needs time to adjust to the new conditions. However, this will take longer than had been expected, as the prevailing framework conditions are constantly being questioned by policy-makers, leading to a lack of legal and economic planning certainty. We assume that a reliable framework will be in place after the general elections in September. If the move towards green energy is completed successfully, the German biogas market will continue to offer opportunities for growth.

### International expansion to drive growth

Throughout the world there are many countries offering an attractive environment for the production of biogas. When making inroads into new markets, we rely on regional partners; this way, we combine our long-standing experience in plant construction and operation with their knowledge of the regional specifics. EnviTec pushed ahead its internationalisation at an early stage and today has a presence in 19 countries besides Germany. The markets in Italy, France and the UK are currently most attractive. Moreover, we closely monitor worldwide developments in the biogas sector. As soon as sustainable structures arise in a market, we review them thoroughly and then take a timely decision as to whether or not we should enter this market.

### Effective expansion of Own Plant Operation

Generating regular cash flows, the segment ideally complements the plant construction activities for third parties. The purpose of this segment is to stabilise the Group's revenue streams. Over the past years, EnviTec Biogas has expanded the own plant operation activities significantly. At the end of 2012, plants with a total capacity of 52 MW were connected to the grid. Due to the political uncertainty, we will focus on optimising the existing plants in 2013. Furthermore, we will add new plants with a capacity of at least 5 MW. We plan to expand the capacity continuously in the medium term – if and when such investments are supported by the legal environment.

## **Strengthening our technological expertise and ability to innovate**

The biogas industry is still young and therefore has huge potential for innovation. By consistently expanding our technological expertise, we aim to consolidate our leading position in the sector and to increase the ecological and economic attractiveness of biogas. Our objective is to continuously improve the operation of our plants and to reduce the amount of substrates they require without affecting their performance. We see great development possibilities to increase the cost efficiency of biogas especially at the upstream and downstream stages of the fermentation process. A key focus is on testing alternative feedstock materials such as organic waste. We are also working on improvements in the agricultural sector, e.g. optimised harvest times and the development of seeds.

## **Company management**

The aim of our corporate activity is to grow profitably. From this basis, we derive our key performance indicators: sales revenues, EBIT, cash flow, return on equity and leverage.

The Group is managed operationally and strategically at regular meetings of the Executive Board members. Depending on the issues to be discussed and planned, these weekly meetings are usually attended by executive staff. Strategic management issues are discussed and adjustments implemented if necessary. In addition to these meetings, the Divisional Managers and the Executive Board meet every two months, primarily to discuss operational issues. This body is provided with a variety of analyses and other documents to facilitate decision-making and project planning. Moreover, the Executive Board regularly receives the results of analyses of sales revenues, orders on hand, liquidity and costs. In this context, targets and actual results are compared.

ERP (Enterprise Resources Planning) software is used throughout the Group for the fast and comprehensive presentation of all processes such as materials handling, finance and accounting, project controlling as well as sales and marketing.

Our quality management system was certified to DIN EN ISO 9001:2008 in 2010. Revised in 2008, the DIN EN ISO 9001:2008 standard makes high demands on quality management systems. At EnviTec, it covers not only the construction and operation of biogas plants but also the biological and technical services provided by the company.

## **Economic Environment**

### **Macroeconomic conditions**

Growth in the world economy continued to slow down last year. According to the latest estimates of the International Monetary Fund (IMF), the world economy grew by 3.2% in 2012, compared to 3.9% in 2011. As in the previous years, growth was mainly driven by the emerging and developing countries, whose economic performance increased by 5.1%.

China reported 7.8% growth and the Indian economy grew by 4.5%. By contrast, the industrialised countries posted a growth rate of only 1.3% last year. The US economy recovered and was up by 2.3% on the previous year. The eurozone economy contracted by 0.4% according to the IMF and will not return to growth in 2013. Overall, the future economic trend will depend on the resolution of the European debt crisis. Economic growth in France slowed down to 0.2% in 2012, while the Italian and UK economies contracted by 2.1% and 0.2%, respectively. Growing by 0.9%, the German economy remains the main growth engine within the eurozone in spite of the ongoing euro crisis. According to the Federal Statistical Office, the export sector was again the most important growth driver in Germany, with exports up by 4.1% on the previous year in 2012. Prices of agricultural resources, which are required as feedstock materials for the operation of biogas plants, stayed at a high level in 2012.

## The biogas market

Based on an estimate by the German Biogas Association (FVB), domestic demand for biogas plants slumped by over 80% in 2012. According to the FVB, some 7,589 biogas plants with an installed capacity of 3,179 MW were on line at the end of 2012. This represents an increase by 269 plants and 182 MW, compared to 1,415 new plants and 706 MW of additional capacity installed in 2011. Approx. 21.9 billion kWh of climate-friendly energy from biogas was produced in 2012, which was sufficient to meet the requirements of 6.3 million households. Electricity output in 2011 amounted to approx. 17.5 billion kWh. Biogas now accounts for 3.6% (previous year: 2.9%) of total electricity consumption in Germany.

The legal framework plays a very important role for manufacturers and operators of biogas plants. In Germany, the Renewable Energy Sources Act (EEG) constitutes the relevant basis for the biogas sector. In addition, the feeding of refined biogas into the natural gas grid is governed by the German Gas Grid Access Directive (GasNZV). The new EEG came into force on 1 January 2012. The new legal framework has led to a dramatic change in the German biogas market. The basic compensation for on-site electricity generating plants remains dependent on the plant size. This is complemented by an input-based feedstock compensation, which is divided into two classes. The new law makes the compensation model of the biogas market much more complex and demanding, not least because of the simple fact that besides the EEG compensation, there will be the alternative to use a market bonus. On balance, EnviTec still sees opportunities in the German biogas market. Among other things, the company has established the new Energy segment, as the direct marketing of electricity will become possible for the first time thanks to the market bonus and will open up a new field of business, which will also help to retain customers. But this new legal framework was already questioned by policy-makers in the second half of 2012. Many proposals have been made, but binding decisions will probably not be taken before the 2013 general elections.



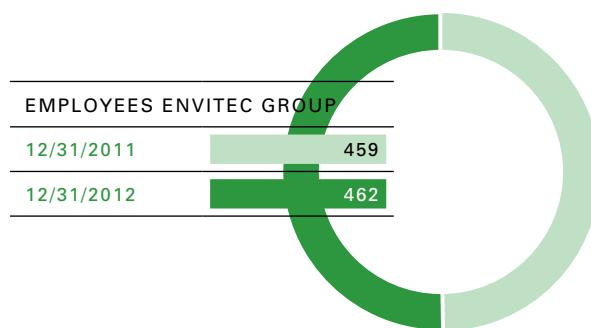
Conclusion: The legal framework created by the EEG 2012 will continue to open up opportunities for EnviTec Biogas in the important German market. But the market will only grow significantly when policy-makers no longer question the legal framework and planning and investment certainty is in place.

The framework conditions in Italy did not change in 2012 but took effect from 1 January 2013; the changes are outlined in the forecast report. The French market is still at a very early stage. Fewer than 100 biogas plants with outputs between 150 and 500 kilowatts were on line in France at the beginning of 2013. The government aims to increase this number to 1,000 by the year 2020. The purpose is not only to push ahead France's move towards green energy; the government also wants to encourage farmers to use the digestate from biogas production to cover part of their fertiliser requirements.

## Employees

As of 31 December 2012, EnviTec Biogas employed 462 people worldwide (previous year: 459). Most of them (380) worked in Germany, while 82 worked at the foreign locations of EnviTec Biogas. The EnviTec Biogas AG itself employed 234 employees on the average (previous year: 244).

The ongoing political discussion about the future legal framework will continue to have an adverse impact on demand for biogas plants in Germany. EnviTec Biogas is challenged to adjust to this situation. At the beginning of 2013, the company's Executive Board therefore decided to implement stringent structural and personnel adjustments in the Plant Construction segment. Most of the headcount adjustments are made in the project implementation area, but jobs are also cut in administration and other areas. In addition, all foreign branches will be reviewed for sustainability and efficiency in the first half of 2013. We very much regret being forced to cut totally 70 jobs in Lohne and Saerbeck and to loose employees as a result.



After all, qualified and motivated employees are the basis for the successful performance of EnviTec Biogas. Apart from offering our staff possibilities for sustainable development, we also aim to give young graduates the opportunity to start their career in an interesting industry of the future. Due to the rapidly changing environment in which we operate, we need flexible employees who are willing to work abroad, to embrace other cultures and to represent the company appropriately. The human resources policy of EnviTec aims to not only meet our own requirements but to also cater to the interests and potential of our employees. This includes monetary incentive systems in some areas, e.g. performance-

based additional compensation. Our internal training and further education measures give employees opportunities for ongoing development and aim to retain them in the long term. These job-oriented measures are complemented by activities fostering the team spirit and communicating our corporate culture, which is characterised by reliability and fairness.

## Research and Development

Ongoing development is key to sustainable success. We take this very seriously and constantly work on the improvement of our plant technology, our quality management as well as new feedstock materials.

### Research in practice, not in the lab

As of 31 December 2012, EnviTec Biogas was operating 70 biogas plants with an electrical output of 52 MW in Germany and Italy. These facilities are an important knowledge pool for the further development, improvement and application of new plant technology. This way, we also ensure that innovations are made available to our customers only after they have proven their worth in current operation.

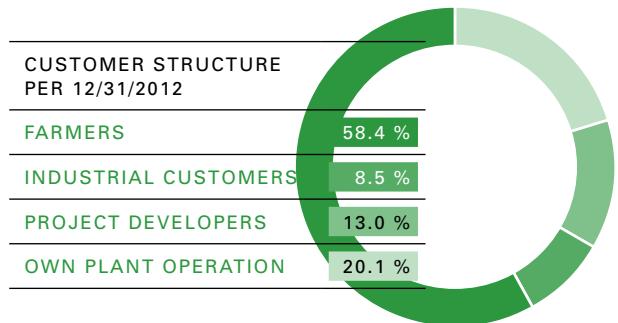
### Cooperation with Evonik Industries in gas upgrading technology

Since early 2012, we have equipped our EnviThan plants, which upgrade biogas into biomethane, with membrane modules from Evonik Industries. The polymer membranes produced by the Essen-based company allow the raw biogas generated in biogas plants to be purified particularly efficiently to feed it directly into the natural gas grid as ultra-pure biomethane. Thanks to the new technology, biogas plant operators can benefit from the advantages provided for upgraded biogas under the amended EEG. We believe that the future of biogas upgrading lies in the membrane technology, which is far superior to all existing upgrading technologies. Evonik

Industries is a strong partner, whose SEPURAN® Green membrane modules represent an excellent technology for our EnviThan biogas upgrading plants. In June, EnviTec won the first contract for the construction of an EnviThan gas upgrading plant. Bioenergie Köckte GmbH & Co.KG in Saxony-Anhalt gave us the go-ahead for the erection of a 349 standard cubic metre plant.

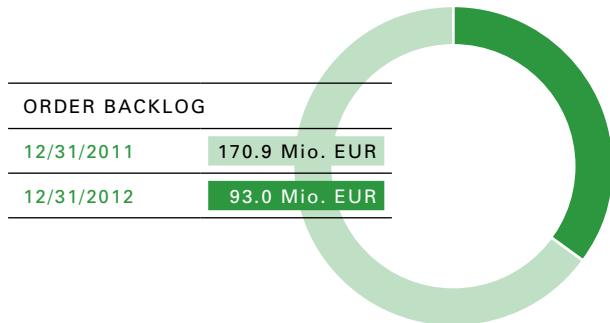
## Order Situation

The uncertainty about the future legal framework for the operation of biogas plants is reflected in the backlog of orders. As of the end of the fiscal year 2012, EnviTec Biogas had an order backlog of EUR 93.0 million (previous year: EUR 170.9 million). This breaks down into orders worth EUR 61.4 million from German customers (previous year: EUR 83.7 million) and orders worth EUR 31.6 million from international customers (previous year: EUR 87.2 million). France accounts for EUR 11.3 million (previous year: EUR 12.9 million) of the international orders, with orders from Italian customers totalling EUR 10.4 million (previous year: EUR 38.3 million) as of the balance sheet date. The Italian biogas sector still has to adjust to the new legal framework established with effect from 1 January 2013.



With regard to the plausibility of the order backlog, EnviTec again subjected the probability of realisation of the individual positions in the order book to a regular and critical review in the course of 2012. As a result of the conservative valuation, potential orders worth EUR 50.0 million were taken off the books in 2012.

EnviTec Biogas is not dependent on individual key accounts but has a very broad customer base. 58.4% of the orders came from agricultural customers (previous



year: 52.3%), while project developers accounted for 13.0% of the orders, compared to 19.7% in the previous year. 8.5% of the orders were placed by industrial customers (previous year: 16.6%). The Own Plant Operation segment accounted for 20.1% of the orders, compared to 11.4% on the previous year's balance sheet date.

## Segment Performance

EnviTec Biogas operates in four segments, Plant Construction, Own Plant Operation, Service and Energy. Sales revenues in these three segments showed a very different trend from the strong previous year, with a marked shift between the contributions made by the individual segments to total Group revenues. While the Plant Construction segment had accounted for over 82% of total Group sales in 2011, this contribution declined to 65.4% in 2012. The Own Plant Operation segment and the Service segment increased both their sales revenues and their contributions to Group revenues compared to the previous year. The Own Plant Operation segment deserves special mention, as it boosted its sales revenues by 42.8% on the previous year and contributed as much as 21.4% to total Group revenues.

## Plant Construction

Sales revenues in the Plant Construction segment were influenced by several, partly contrary effects in 2012. While construction activity in the German market was relatively high in the first half of 2012, mainly influenced by final completion of the biogas plants that went on line on 31 December 2011, construction activity in the



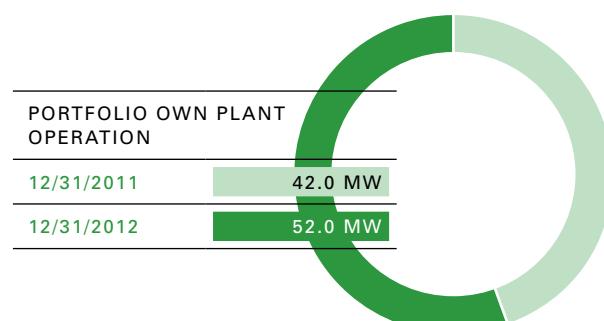
Italian market dominated the segment's business in the second half of the year. Sales in Italy were driven primarily by the fact that the feed-in tariff for the previously preferred 999 kW plants deteriorated with effect from 31 December 2012. As a result, investments were brought forward, albeit to a lower extent than had been the case in the German biogas market in the prior year. These two dominating effects largely levelled out the seasonality of sales revenues in 2012. Overall, the Plant Construction segment generated sales revenues of EUR 124.6 million in 2012, compared to EUR 201.0 million in the previous year. This represents a decline by 38.0%, which also had an impact on the segment's bottom line. Earnings before interest and taxes (EBIT) amounted to EUR -4.2 million in 2012, compared to EUR 7.7 in the previous year. In this context, it should be noted that negative one-time effects occurred in 2012. This amounted to 1.2 million euros due to higher depreciation allowances on inventories and financial assets, amounting to 1.3 million euros EBIT loads due to the termination of the litigation with a customer. The resulting opposing effects in the amount of EUR 1.5 million is reflected in the increase in net interest income.

Germany and Italy were the most important plant construction markets in 2012. In spite of a sharp drop in demand and persistently fierce competition, EnviTec

generated domestic sales revenues of EUR 41.4 million (previous year: EUR 137.9 million). In Italy, we generated sales revenues of EUR 47.0 million in 2012 (previous year: EUR 26.2 million), which is almost as much as generated in the German biogas market (41.4 million euro, previous year: 137.9 million euros). The competitive environment, especially in Germany, is characterised by a large number of plant manufacturers. Based on a market share of approx. 5.7%, EnviTec considers itself to be one of the three largest biogas plant manufacturers.

Outside Germany, we began to concentrate on the countries providing the most stable framework in 2009. Plant operators are willing to make investments only where a clearly defined legal framework, financing possibilities and sufficient feedstock materials exist. This concentration paid off in 2012, even if the sales revenues generated abroad could not fully offset the dramatic slump in domestic demand. International sales revenues climbed from EUR 63.1 million to EUR 83.2 million. Besides Italy, the French market also showed a positive trend, and the French government continues to pursue ambitious capacity targets in the biogas sector, as outlined in the forecast report. This is also reflected in our order backlog: France currently accounts for 12% of total orders on hand, making it the biggest foreign market in our order book.

## Own Plant Operation

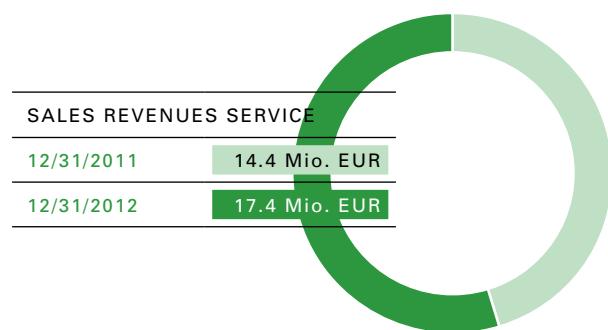


The Own Plant Operation segment generates electricity, heat and gas in its own biogas plants in Germany and abroad, often in cooperation with partners. With its regular cash flows, this segment ideally complements the plant construction activities. As announced in the 2011 Annual Report, we made significant investments in

the Own Plant Operation segment in 2012. The success of these investments is reflected in the fact that 12 plants were taken into operation in 2012, bringing the total number of own plants to 70. The electrical output increased from 42 MW to 52 MW. The Own Plant Operation segment also invested heavily in the optimisation of its existing plants and implemented heat management concepts at several locations, thereby increasing the utilisation of primary energy and laying the foundation for revenue and earnings growth in the coming years.

Sales revenues in EnviTec's Own Plant Operation segment rose by 42.8% from EUR 28.6 million to EUR 40.8 million in 2012. The segment's EBIT climbed by 28.3% from EUR 4.6 million to EUR 5.9 million. The Own Plant Operation segment thus generated an EBIT margin of 14.5% (previous year: 16.1%).

## Service



Sales revenues from the provision of services related to the operation of biogas plants showed a positive trend in 2012. Our experts take care of the plant start-up and constantly control its operation and the biological processes. Feedstocks and digestates are checked for optimum quality in the lab to give recommendations on how to increase the performance of the plant. Our range of services also includes regular on-site inspections as well as training of operators and their staff. We offer partial maintenance services, which are charged by actual expenses, or full maintenance including full coverage of the repair risk. We increasingly offer our services outside Germany, thus following in the footsteps of our Plant Construction segment, especially in markets such as Italy, the Czech Republic and the UK, where Envitec is successfully building biogas plants.

At the end of 2012, the Service segment provided biological services for plants with a total electrical output of approx. 63 MW (previous year: 54 MW) and technical services for plants with an electrical output totalling 202 MW (previous year: 150 MW), of which 38 MW (previous year: 16 MW) in technical and 30 MW (previous year: 12 MW) in biological service. Sales revenues in this segment climbed from EUR 14.4 million to EUR 17.4 million in 2012. Balanced EBIT mean that the segment closed the year 2012 with a much better result than the previous year, when negative EBIT of EUR -1.6 million were posted.

## Energy

The Energy segment is the youngest segment of the EnviTec Group and has generated sales of 7.6 million euros and operating income of minus 0.4 million euros in the first year of operations. Because of the first operational year, no comparative figures for the previous year can be showed.

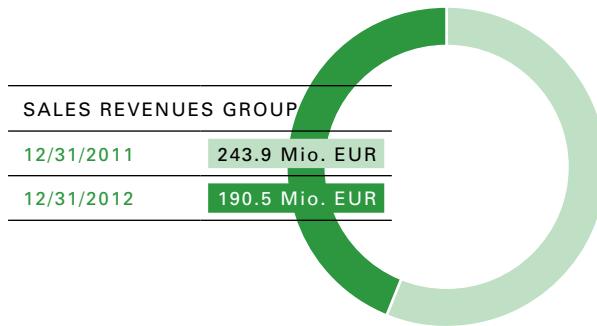
## Earnings, Financial and Net Worth Position

### Sales revenues

#### Group

After the record year 2011, sales revenues of EnviTec Biogas were influenced – as had been expected – by a drop in domestic demand. In 2012, Group sales totalled EUR 190.5 million, compared to EUR 243.9 million in the previous year. This represents a decline of 21.9%. In light of the high gross margin of approx. 27% in the Plant Construction segment, no increase in price pressure is expected.

The strongest decline was reported by the Plant Construction segment in Germany. While record sales were posted in 2011 as investments were brought forward in anticipation of the new EEG, the German market had to adjust to the new law in 2012. Due to the ongoing political discussion, this is taking longer than had originally been expected by EnviTec. As a result, domestic Group



revenues declined by 43.7% to EUR 101.8 million.

Foreign sales showed a satisfactory trend and rose by 40.6% to EUR 88.7 million. Italy again made the biggest contribution to plant construction revenues of all international markets. Other operating income climbed from EUR 7.6 million to EUR 8.7 million.

### Separate financial statements

Sales revenues of EnviTec Biogas AG, which are determined according to the provisions of the German Commercial Code, were up by 68.2% on the previous year to EUR 176.1 million. Other operating income climbed from EUR 2.7 million to EUR 3.4 million. Changes in inventories of finished goods and work in progress amounted to a negative EUR -63.5 million, compared to a positive EUR 75.9 million in the previous year. The total output of EnviTec Biogas AG thus dropped from EUR 183.4 million in the previous year to EUR 116.0 million in 2012.

## Expenses

### Group

The cost of materials is the main expense item of EnviTec Biogas. As a result of the reduction in sales, the cost of materials declined by 24.5% from EUR 175.7 million to EUR 132.6 million. With the Own Plant Operation segment, which traditionally generates high margins, making a bigger contribution to total Group sales, the gross profit margin climbed from 31.1% to 35.0%. At EUR 22.2 million, personnel expenses slightly exceeded the previous year's EUR 21.5 million. As a result, personnel expenses as a percentage of sales rose from 8.8% to 11.7%. The Board has responded accordingly to this beginning of the year 2013.

The increase in depreciation/amortisation from EUR 9.5 million to EUR 13.2 million is mainly attributable to the

expansion of the Own Plant Operation segment. Write-downs for impairment amounted to EUR 1.2 million, as construction orders in the Plant Construction segment, impaired assets of project companies in Italy as well as one plant in Germany were written off. Other operating expenses, which comprise operating, administrative and selling expenses, declined from EUR 34.0 million to EUR 29.8 million in the reporting period. This was mainly due to the reduction in selling expenses from EUR 15.1 million to EUR 9.4 million.

### Separate financial statements

In the separate financial statements of EnviTec Biogas AG, the cost of materials declined in sync with total output, namely from EUR 140.0 million to EUR 82.4 million. Personnel expenses dropped from EUR 12.7 million to EUR 11.8 million. Depreciation/amortisation increased moderately from EUR 2.7 million to EUR 3.0 million. 2012 was the first fiscal year to see an unusual write-down of work in progress in the amount of EUR 1.0 million. Other operating expenses amounted to EUR 17.2 million.

## Earnings

### Group

The sharp drop in EnviTec Biogas' sales revenues was clearly reflected in 2012 earnings. The slump in the Plant Construction segment was only partly offset by the Own Plant Operation and Service segments. Earnings before interest, taxes, depreciation and amortisation (EBITDA) declined by 28.6% from EUR 20.3 million to EUR 14.5 million. Due to higher depreciation/amortisation, earnings before interest and taxes (EBIT) decreased from EUR 10.8 million to EUR 1.3 million. Due to EnviTec's solid capitalisation, the financial result rose from EUR 0.2 million to EUR 1.7 million.

Earnings before taxes (EBT) fell from EUR 10.9 million to EUR 3.0 million. Consolidated net income amounted to EUR 1.2 million in 2012, compared to EUR 7.5 million in the previous year. This is equivalent to earnings per share of EUR 0.08 for the year 2012 (previous year: EUR 0.51).

Inflation and exchange rate movements have an impact on the profit and loss account of the Group EnviTec are relatively low because the main business function both in

single as well as in sales in euros and you are not active in high inflationary countries.

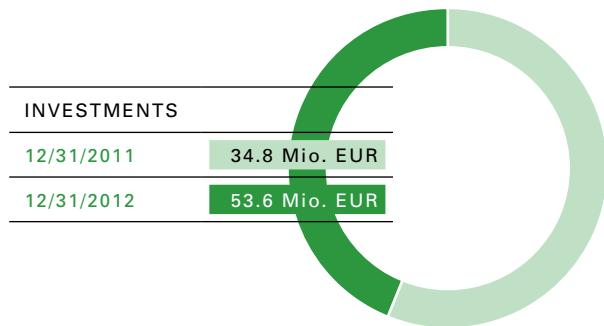
### Separate financial statements

Net income of EnviTec Biogas AG, which is determined according to the provisions of the German Commercial Code, declined by EUR 0.2 million to EUR 5.2 million.

### Information on the dividend

In view of lower capital expenditures planned in the future, the good cash position and the very solid equity ratio of 52% (as of 31 December 2012), the Supervisory Board and the Executive Board will propose an extraordinary dividend of EUR 1.00 per share to the ordinary Annual General Meeting on 27 June 2013.

## Investments



### Group

In 2012, the investment activity of EnviTec Biogas was again marked by the ongoing expansion of the Own Plant Operation segment. At EUR 53.6 million, total capital expenditures exceeded the previous year's high level of EUR 34.8 million. Plants with an electrical output of 10 MW were added to EnviTec's portfolio in 2012. Investments in the Own Plant Operation segment planned for 2012 and 2013 have been put on hold for the time being due to the difficult legal situation in Germany.

### Separate financial statements

Capital expenditures on intangible assets and property, plant and equipment in the separate financial statements amounted to approx. EUR 1.3 million in 2012 (previous year: EUR 1.8 million).

## Net worth position



### Group

Compared to year-end 2011, total assets of the EnviTec Group increased by EUR 43.9 million to EUR 352.8 million on 31 December 2012. On the assets side, non-current assets of EUR 159.2 million clearly exceeded the previous year's EUR 111.9 million. The increase by EUR 47.3 million is almost exclusively due to the expansion of the high-margin Own Plant Operation segment. Property, plant and equipment and investments accounted for using the equity method increased by a total of EUR 40.2 million.

Current assets declined by a moderate EUR 3.4 million to EUR 193.6 million. At EUR 48.4 million, the biogas plants that were under construction as of the balance sheet date and, hence, the receivables from long-term construction contracts were down by EUR 9.8 million on the previous year as a result of the changed order situation. Trade receivables increased by EUR 7.8 million due to final accounting of the projects in Italy. At the same time, other current assets declined by EUR 5.2 million to EUR 56.6 million due to the repayment of loan receivables. At EUR 34.3 million, inventories were almost on a par with the previous year. As of the balance sheet date, EnviTec Biogas had liquid funds of EUR 20.7 million, which clearly exceeded the previous year's EUR 13.9 million. For more information, refer to the information provided under "Cash position".

### Separate financial statements

Total assets in the separate financial statements of EnviTec Biogas AG climbed from EUR 230.9 million to EUR 236.6 million in 2012. On the assets side, financial assets increased by EUR 63.4 million due to reclassifications from current assets and the granting of additional

loans to affiliated companies. On the other hand, receivables and other assets declined by EUR 40.6 million as a result of the reclassifications and loan repayments. Because of the decline in orders, inventories reduced by EUR 19.2 million.

## Financial position

### Group

The financial position of EnviTec remains sound. As it is impossible to predict when demand for plant construction will pick up again, the Plant Construction segment will nevertheless have to make stringent structural and personnel adjustments in 2013. This ensures that EnviTec's financial situation remains sound so that the company will be able to swiftly seize opportunities if and when they arise in future. On the liabilities side, equity amounted to EUR 184.5 million at the end of 2012, up EUR 0.6 million on the previous year. The equity ratio of 52.3% as of the balance sheet date (previous year: 59.5%) reflects EnviTec's solid balance sheet structure.

Total debt capital rose from EUR 125.0 million to EUR 168.3 million (including financial liabilities of EUR 114.1 million) in 2012. Current liabilities climbed from EUR 71.6 million to EUR 81.0 million. The increase is mainly due to higher current provisions, trade liabilities and other current liabilities. Current provisions for guarantees and non-invoiced services provided by suppliers for projects finally accounted for rose from EUR 9.5 million to EUR 12.3 million, while trade liabilities increased from EUR 16.6 million to EUR 28.1 million primarily due to the sales trend in Italy. The rise in non-current liabilities from EUR 53.5 million to EUR 87.3 million is almost exclusively attributable to the expansion of the Own Plant Operation segment. Non-current financial liabilities comprise project loans for the biogas plants as well as a note loan placed in September 2012. The EUR 30 million note loan was successfully placed with German institutional investors. The proceeds from the issue will be used for general corporate financing purposes and, in particular, the expansion of the high-margin Own plant operation segment. Bremer Landesbank was the Sole Mandated Lead Arranger in the transaction. The issue was divided into tranches with fixed and floating interest rates and terms of

three, five and seven years, with the main emphasis on the medium maturity segment. Based on interest rates at the time of the issue – which have not changed materially in the meantime – interest rates are below 4 percent p.a.

In the fiscal year 2012, the EnviTec Biogas Group had current floating-rate financial liabilities in an amount of EUR 5.3 million (previous year: EUR 24.4 million). The long term loans carry a floating interest rate based on the EURIBOR 6M plus a margin. Fluctuations by +/- 50 base points or 0.5% p.a. were used in the sensitivity analysis. An increase by 50 basis points would reduce the financial result by EUR 0.1 million, while a decline would increase the financial result by EUR 0.1 million. Accordingly, equity would decline/increase by EUR 0.1 million. Non-current loans stood at EUR 74.6 million at the end of the year (previous year: EUR 46.5 million); fixed interest rates between 2.4% and 6.23% have been agreed. Except for the loan mentioned above, no non-current floating-rate loans exist.

### Separate financial statements

Due to the positive result, equity capital in the separate financial statements of EnviTec Biogas AG increased from EUR 174.0 million to EUR 179.2 million. Provisions were up by EUR 2.4 million on the previous year to EUR 9.4 million. This is due to allocations to provisions for guarantees and non-invoiced services provided by suppliers. Liabilities to banks increased by EUR 8.7 million to EUR 37.5 million. In this context, liabilities from overdraft facilities were reduced and replaced with the EUR 30 million note loan described under the "Group" paragraph on the financial position.

## Cash position

### Group

EnviTec Biogas had a very solid cash position as of the balance sheet date, when liquid funds totalled EUR 20.7 million (previous year: EUR 13.9 million) and other current assets amounted to EUR 56.6 million (previous year: EUR 61.8 million). Current financial liabilities stood at EUR 32.2 million on the balance sheet date (previous year: EUR 35.5 million) and included EUR 5.6 million in used overdraft facilities. In addition, EnviTec Biogas had unused overdraft facilities of EUR 24.4 mil-

lion as of the balance sheet date. Interest rates are in line with general market rates. Repayments are made from cash inflows from current assets.

Besides the high liquid funds, EnviTec also has strong cash flows. Gross cash flow in 2012 amounted to EUR 16.5 million (previous year: EUR 19.1 million), while net cash flow reached as much as EUR 32.5 million (previous year: EUR -3.3 million). Due to high investments in the Own Plant Operation segment, the outflow of cash from investing activities rose from EUR 36.9 million to EUR 54.2 million. These investments will have a positive impact on sales and earnings in future.

The liquid funds in the single annual financial statements of the EnviTec Biogas AG increased in the amount of EUR 2.9 million to EUR 3.0 million compared to the previous year. The liquidity situation is mainly characterized by unutilised current account lines worth EUR 24.4 million (previous year: EUR 10.2 million) and a positive working capital.

## General statement on the financial situation

Based on the earnings, financial and net worth position derived from the consolidated financial statements for 2012 and described above and in light of the performance in the fiscal year 2013 to date, the management of EnviTec Biogas AG considers the financial situation of the Group to be very solid at the time of the preparation of the consolidated financial statements.

While the current sales and earnings trend is not satisfactory due to the political uncertainty, EnviTec has a solid net worth position and has implemented the necessary structural and personnel adjustments.

## Internal control and risk management system (report pursuant according to section 289 para. 5 and section 315 para. 2 no. 5 German Commercial Code (HGB))

The EnviTec has an internal control and risk management system with regard to the accounting process are defined in the appropriate structures and processes and implemented in the organization. This is designed so that a timely, consistent and accurate accounting for all business processes or transactions is guaranteed. It ensures compliance with legal standards, accounting regulations and internal instructions for financial reporting. Fundamentals of the internal control system is provided by defined control including systemic and manual reconciliation, the separation of functions and compliance with policies and work instructions. Based on the data of the companies included in the scope of consolidation subsidiaries, the consolidated accounts are prepared centrally. The consolidation, certain reconciliation and monitoring are performed by specialized, specially trained staff. At each level, there are at least a four-eye principle.

Basically, it should be noted that an internal control system, regardless of its design, does not provide absolute assurance that material misstatements are prevented or detected in accounting.

# Opportunity and Risk Report

The conscious and controlled management of risks and opportunities is the basis for successful long-term corporate development. The changing global energy market opens up opportunities for EnviTec Biogas which the company wants to exploit. Opportunities naturally entail risks, which must be adequately managed and minimised in order to ensure successful corporate development. EnviTec Biogas has therefore introduced a management system which systematically identifies potential risks and shows measures to minimise these risks. All executive staff are trained in identifying risks and taking appropriate responses. They encourage their employees to think in an entrepreneurial manner and to avoid risks. Risk management forms the basis for corporate control and helps to achieve the company's objectives. It is an integral element of all business processes and business units.

## Opportunities

### Sector-specific opportunities

The biogas sector is still at a very early stage. The rising global demand for energy and the challenges posed by climate change offer long-term growth opportunities for the biogas sector. As a renewable energy source which can cover base load and peak load requirements, biogas will continue to gain importance going forward. This will entail opportunities across the globe for EnviTec. Key markets currently include Germany, Italy, France and the UK.

### Strategic corporate opportunities

Strategic corporate opportunities result from the ongoing development of the product portfolio – with regard to both scope and quality – and the expansion of the technological leadership. We therefore focus on investments in research and development, quality assurance and employee qualification.

### Performance-related opportunities

Performance-related opportunities arise for EnviTec Biogas along the value chain from purchasing to production to sales and marketing. Analysis and optimisation open up opportunities to increase the profitability.

## Risks

### Risk management

EnviTec Biogas has laid down the tasks, reporting and organisational structures in a Risk Management Manual. This Manual defines risks and describes the complete risk management process. The task of the Risk Officers is to assess, monitor and counter-act all risks in accordance with defined categories. Based on a regularly updated risk inventory, these are reviewed at quarterly intervals.

Any risks which arise all of a sudden and have a notable impact on the company's business performance and earnings position as well as on the enterprise value are immediately reported to the Executive Board, which will then take the necessary decisions.

In the context of its reports to the Supervisory Board, the Executive Board continuously informs the latter about the main risks and outlines the measures taken to manage these risks.

Ours is a rapidly growing company with worldwide activities. This gives rise to risks which are inextricably linked with our business activities. As a matter of principle, risks cannot be entirely avoided by changing the basic framework or through technological development. Our risk management system is therefore constantly being adapted to the latest developments. The Group does not take risks that are unrelated to the key objectives of corporate development.

These key objectives include:

- > development and implementation of the business model and sustainable earnings growth,
- > defending the technological leadership,
- > goods and services procurement management as the basis of corporate success,
- > secure liquidity.

The Executive Board has no knowledge of any risks jeopardising our continued existence. Individual risks capable of jeopardising our business performance and corporate value are described below.

## Environmental and industry risks

The financial success of the products and services offered by EnviTec Biogas is dependent on the promotion of renewable energy sources under appropriate policies and regulations. In Germany, these include, for instance, the German Renewable Energy Sources Act (EEG). Most of the other EU member states and a number of non-EU countries have also put in place regulations comparable to the German Renewable Energy Sources Act (EEG). These regulations are of decisive importance for the success of the biogas sector in these countries.

Regulations under construction law and pollution control law must be observed both when building or enlarging biogas plants and when operating such plants. Some of these regulations place biogas plants in a privileged position in relation to other plants; in particular, they provide for size-related simplification of the licensing procedure when erecting such plants in outdoor areas as defined by construction law. Any changes in the statutory conditions governing the erection, enlargement and operation of biogas plants, both in Germany and in other countries, may have a negative effect on the net worth, financial and earnings position of EnviTec Biogas. As the political discussion in Germany is still ongoing, the resulting risks cannot be reliably assessed at the time of the preparation of the present financial statements. For details on the framework conditions, refer to the forecast report.

Moreover, some parts of the general public as well as certain special interest groups have reservations about biogas plants and their construction. This is why, in June 2009, EnviTec Biogas and other companies established the German Biogas Council, which acts as a source of advice and port of call for policy-makers, the corporate sector and special interest groups and aims to eliminate prejudices. The aim is to promote the agricultural and industrial orientation of biogas technology and to represent the industry's shared interests with regard to legislation and products.

EnviTec Biogas intends to expand its international activities, which gives rise to a number of risks. These include potential changes in the political, economic, social, legal, cultural and fiscal conditions prevailing in individual countries. In addition, there is the risk of unexpected

changes in local laws and regulations, which may have an adverse impact on the business activity of EnviTec Biogas. Some countries in which we are already active or plan to become active are considerably less stable in economic, political and legal terms than the member states of the European Union. This applies to Asia, in particular. Inadequate legal and administrative systems may make it more difficult or even impossible to obtain official permits, hamper the completion of customers' orders or jeopardise the enforcement of financial and other claims. The company has built up substantial know-how in the foreign representative offices and the Group management team and aims to anticipate potential changes and to prepare itself and its customers accordingly. Moreover, the processes and documents needed to obtain local approvals are optimised with regard to specific local requirements. Countries in which EnviTec Biogas sees no opportunities following close monitoring are not taken into account by the management or exited by the company. To avoid a loss of receivables, the company has improved its receivables management and creditworthiness assessment systems.

## Order, sales and default risk

The effects of the economic developments on the company's customers and its order and sales situation are difficult to assess. A decline in the order backlog due to cancellations or a lack of new orders would have an impact on the future sales and earnings position. EnviTec Biogas has intensified its communication with its customers to anticipate any potential postponement of orders and supports its customers in the approval processes.

With a view to preventing the loss of receivables, the company has optimised its receivables management process as well as the creditworthiness review. The open positions are reported to the Executive Board in a weekly report. Moreover, every responsible project manager is informed of the outstanding receivables at 14-day intervals so that dunning can be initiated. EnviTec and a former key account have reached an agreement to settle a major legal dispute and to repay open receivables as planned. Given that the former key account has provided comprehensive security, we see no need to write down the respective receivables.

## Currency risks

All sales and purchases are made in the Group currency, the euro. This does not entail major currency risks. Currency risks may arise in conjunction with the Czech subsidiary, as material payment flows arise both in euros and in Czech korunas. The same applies to the subsidiary in the UK and the future US subsidiary. Exchange rates are therefore monitored on an ongoing basis to ensure that currency hedging measures can be taken at an early stage.

To hedge risks in conjunction with contracts in the Czech Republic and the USA, currency forward contracts in an amount of EUR 2.4 million were signed. They are used to hedge payments expected to be received by the Czech subsidiary.

## Competitive risks

The market for biogas plants offers attractive prospects for the future. For this reason, both existing and future competitors could attempt to win additional market shares by way of aggressive pricing and acquisition policies. This competition is made even fiercer by the continuous reduction in the minimum remuneration paid for electricity which is fed into the public grid from biogas plants in accordance with the German Renewable Energy Sources Act (EEG) and the associated imperative to permanently cut costs, as well as by similar trends in other countries. EnviTec has reacted to the market situation at the beginning of 2012. In this matter we refer to the supplementary report.

## Technological risks

Biogas plants are subject to rapid technological change. The market for biogas plants is driven by constantly improved products and services and is characterised by short product lifecycles and frequently changing customer requirements. We assume that this will continue to be the case going forward. By introducing new products or services earlier or at more favourable conditions than our company, our competitors could gain a lead or secure exclusive rights to new technologies. The future success of EnviTec Biogas therefore depends on its ability to continuously develop new products and services and to enter into technology partnerships.

## Procurement risks

The components needed to build biogas plants are to a large extent purchased from suppliers. Particularly the combined heat and power units are only produced and supplied by a small number of manufacturers worldwide. This could give rise to supply bottlenecks or rising prices for the components. We aim to prevent this by maintaining close business relationships and signing fixed-price agreements.

Supply bottlenecks may also result from environmental disasters or poor weather conditions affecting large areas. The latter may lead to lost harvests of the substrates used in the operation of biogas plants, i.e. renewable or organic resources and waste. Prices for the required feedstock materials may rise as a result of the high demand. This could jeopardise the cost-efficiency of the biogas plants operated by EnviTec's Own Plant Operation segment. Among other things, long-term delivery contracts are concluded with regional agricultural operations in order to reduce this risk. Particularly outside Germany, the strategy of EnviTec Biogas is to involve regional farmers directly in the operation of the plants, as partners, and thus assure the supply of raw materials.

## Corporate growth and internal risks

EnviTec Biogas has established internal organisational structures and management processes that must keep pace with the company's expansion in the recent past. These include the organisation for financial accounting according to IFRS, the necessary IT systems and strict receivables management. The EnviTec Group has an internal controlling and risk management system regarding the accounting process, which defines suitable structures that are implemented in the organisation. This system is designed to ensure timely, consistent and correct accounting of all business processes and transactions. It also guarantees compliance with legal standards, accounting regulations and internal instructions.

The consolidated accounts are produced centrally on the basis of the data of the consolidated subsidiaries. Specially trained employees are responsible for consolidation.

The management teams of the Group's member companies are responsible for implementing and monitoring

the local internal controlling systems.

Generally, it should be noted that an internal controlling system, irrespective of the size and structure, does not provide 100% security that material misstatements in the accounts are avoided or identified. However, it serves to prevent with sufficient certainty that corporate risks have a material effect.

The future processes will make high demands on our organisation and will tie down substantial management resources. There is a risk that the company's organisation and structure will be unable to keep pace with the company's requirements. The company therefore attaches top priority to developing and refining the necessary organisational, information and management structures.

#### Personnel risks

The growth of EnviTec Biogas depends first and foremost on highly qualified employees. Growth will be slowed if it is not possible to hire well trained employees in a timely manner or to retain key qualifications in the company. The company makes consistent and intensive use of recruitment tools and constantly coordinates the company's hiring needs with the individual departments. At the same time, the company continues to train and educate its employees and expands its knowledge by cooperating with the scientific departments of technical colleges.

## Risks from financing instruments

In September 2012, EnviTec Biogas AG issued a EUR 30 million note loan. In this context, EnviTec undertook to meet certain financial covenants such as a minimum equity ratio (equity capital / total assets) and maximum leverage (net liabilities /EBITDA). The agreed covenants are met by EnviTec. A violation of these covenants would entitle the banks to terminate the note loan.

Due to floating-rate current and non-current financial liabilities to banks in the amount of EUR 17,303k, EnviTec Biogas AG is generally exposed to an interest rate risk. This risk is being mitigated by derivative financial instruments. The other non-current liabilities carry fixed interest rates and are therefore exposed to a fair-value risk, which means that potential interest rate increases do not represent a risk to the company.

## Post balance sheet events

In view of the persistent uncertainty about the future legal framework for the biogas industry in Germany – and beyond – the Executive Board projects a significant decline in sales revenues in EnviTec's Plant Construction segment, which will not be fully offset by the Own Plant Operation, Service and Energy segments. In January 2013 the Executive Board therefore decided to implement stringent structural and personnel adjustments in the Plant Construction segment. Most of the personnel adjustments are made in the project implementation area, but jobs will also continue to be cut in administration and other areas. In addition, all foreign branches will be reviewed for sustainability and efficiency. The structural and personnel expenses are expected to entail one-time expenses of approx. EUR 0.7 million in the first half of 2013.

## Other Information

### Related party disclosures

In accordance with section 312 of the German Stock Corporation Act (AktG), the company published related party disclosures, which ended with the following statement: "Each of the transactions mentioned in the related party disclosures was made on terms equivalent to those that prevail in arm's length transactions, based on the circumstances known to us at the time when such transactions were made. There were no reportable measures at the instigation or in the interest of the controlling company." The auditors of EnviTec Biogas AG, Rödl & Partner GmbH, audited the related party disclosures and issued an unqualified audit certificate.

### Compensation Report

The Compensation Report explains the remuneration for the Executive Board in 2012 and represents the structure and level of remuneration of the Board members total granted for the 2012 financial year. Furthermore, in this remuneration details of the remuneration of the Supervisory Board in fiscal 2012 included.

#### Compensation of the members of the Executive Board

The structure of the compensation system and the compensation of the individual members of the Executive Board are decided by the Supervisory Board, which provides advice and regularly reviews the adequacy of the compensation structure. In accordance with the "Gesetz zur Angemessenheit der Vorstandsvergütung" (VorstAG - German Reasonableness of Management Compensation Act) and the Corporate Governance

Code, the compensation of the Executive Board consists of two components, i.e. fixed annual compensation and variable compensation. As of 1 January 2011, the Supervisory Board arranged the compensation in such a way that variable compensation components are generally based on a multi-year assessment and that both positive and negative developments are taken into account when determining variable compensation components. The variable compensation is calculated on the basis of that portion of the consolidated net income before tax that exceeds EUR 10 million. The variable compensation of Executive Board Chairman Olaf von Lehmden and of the other members amounts to 0.65% and 0.5%, respectively, of the respective consolidated net income before tax. 50% of the variable compensation is paid out in the following year, with 25% each paid out in the next two years, provided that consolidated net income before tax of at least EUR 10 million is generated in the respective year.

The variable compensation paid for the fiscal year 2012 is shown in the table below.

Fringe benefits for the members of the Executive Board include a company car, which may also be used for private purposes. Moreover, EnviTec Biogas AG pays the premiums for an existing D&O insurance policy.

The contracts of the Executive Board members will end as of the dates shown below

Olaf von Lehmden	31 December 2016
Jörg Fischer	31 December 2016
Roel Slotman	31 December 2016
Jürgen Tenbrink	31 December 2016

The table below shows the compensation received by the individual members of the Executive Board who were in office in fiscal 2012:

in EUR	Basic compensation		Variable compensation		Other compensation*		Total	
	2012	2011	2012	2011	2012	2011	2012	2011
Olaf von Lehmden	145,325	141,750	3,077	3,077	15,111	12,281	163,513	157,108
Jörg Fischer	134,500	130,000	2,367	2,367	10,265	7,991	147,132	140,358
Roel Slotman	124,500	120,000	2,367	2,367	10,481	8,987	137,348	131,354
Jürgen Tenbrink	120,665	120,000	2,367	2,367	13,742	12,904	136,774	135,271

\*Other emoluments comprise the non-cash benefits from us of a company car and the share of D&O insurance attributable to the respective members of the Executive Board. Further some private insurance benefits are included.

## Compensation of the members of the Supervisory Board

in EUR	Fixed compensation		Variable compensation*	
	2012	2011	2012	2011
Bernard Ellmann (Chairman)	20,000	20,000	12,000	7,500
Hans-Joachim Jung (Vice Chairman)	10,000	10,000	12,000	7,500
Michael Böging	10,000	10,000	12,000	7,500

\*Attendance fee

In deviation from the Corporate Governance Code, the compensation of the Supervisory Board members contains no performance-based component nor does the Vice Chairman receive higher compensation.

## Forecast Report

### Macroeconomic environment remains stable

Growth in the world economy is likely to pick up somewhat in 2013. In its latest forecast for 2013, the IMF projects a growth rate of 3.5%. 5.5% growth is projected for the developing and emerging countries, compared to only 1.4% for the industrialised countries. A positive trend and a 2.0% growth rate are anticipated for the USA, whereas the eurozone economy is expected to continue suffering from the consequences of the financial and debt crisis. While confidence in the stability of the members of the Eurogroup has increased somewhat lately, the IMF nevertheless expects economic output in the eurozone to decline by a moderate 0.2%. The recession is persisting especially in the Southern European countries. The German economy will probably be able to isolate itself only partly from this negative trend and will grow by just 0.6% in 2013, according to the federal government's latest Annual Economic Report. This growth will be driven primarily by stable domestic demand.

## Sector developments

In spite of the existing EEG 2012, the German biogas market will continue to be characterised by great uncertainty in 2013. The ongoing discussion about the future legal framework and potential retroactive amendments to the tariffs for electricity from renewable sources are causing great uncertainty among all players along the value chain, from project development and financing to plant construction and operation. This results in a lack of political and economic planning certainty. We therefore expect revenues from plant construction in Germany to decline again in 2013. We do not believe that the general elections in autumn 2013 will send any positive signals for the biogas market. We will nevertheless try to encourage policy-makers - both through our work in associations and on our own initiative - to return to a reliable energy policy in the short to medium term and to show a clear commitment to the move towards green energy and to present a binding roadmap for the amendment of the EEG.

In Italy, government subsidisation of biogas plants was amended with effect from 1 January 2013, offering opportunities for biogas plants with a capacity of less than 500 kW. EnviTec responded to this change at an early stage and has since offered the corresponding plant concepts. After the strong year 2012, demand is nevertheless expected to decline during a transitional period. By contrast, the political environment for biogas plants has improved in markets such as France and the UK, where the positive aspects of biomethane feeding are increasingly appreciated and new incentive systems are implemented to support market penetration. EnviTec has been active in these markets for several years

and has gained a good market position. We assume that these markets will be able to offset the decline in domestic sales at least partly.

## Performance of EnviTec Biogas

In response to the difficult situation in the Plant Construction segment, the Executive Board decided in early 2013 to implement sustainable structural and personnel adjustments in this segment. Most of these personnel adjustments were made in the project implementation area, but jobs were also cut in administration and other areas. In addition, all foreign branches are being reviewed for sustainability and efficiency. These structural and personnel adjustments will lead to one-time expenses of about EUR 0.7 million in the first half of 2013.

In view of the ongoing political uncertainty in Germany and the new legal framework in Italy, it is too early to make a reliable prediction of when demand for biogas plants will pick up again. We therefore believe that 2013 will be a difficult year for the Plant Construction segment. The political uncertainty in Germany and the unpredictable developments in some European countries are making it difficult to make a reliable forecast for the year 2014. This is why EnviTec is taking a conservative approach with regard to capacity also for this year but will closely monitor the markets and regularly review its market assessment for the Plant Construction segment.

The sales and earnings trend in the Own Plant Operation segment should be very positive in 2013 and also in 2014. Having increased our production capacity to 52 MW in 2012, we project sales revenues of approx. EUR 55 million and a clearly positive result for 2013 and 2014 for this segment. In 2013, EnviTec will focus on the optimisation of the existing plants and install at least 5 MW of new capacity. This should send production capacity rising to a good 57 MW in late 2013. If the tariff situation in Germany or selected stable European markets changes to the positive, we will continue to expand our portfolio of own plants, but will primarily focus on optimising our existing plants also in 2014.

The positive sales trend in the Service segment will continue in 2013 as we will intensify our distribution

activities in Germany and abroad and improve the quality of our service. This trend should continue in 2014 but will not least be dependent on the future development of the market environment in our target markets.

The expected decline in plant construction revenues will not be fully offset by the Own Plant Operation, Service and Energy segments. We therefore project consolidated sales revenues of EUR 170 million to EUR 180 million for the current fiscal year. While a reliable sales forecast for 2014 is currently not possible due to the political uncertainty in Germany and the unpredictable developments in some EnviTec core markets, we expect sales revenues to reach a level similar to that projected for the fiscal year 2013.

In spite of the restructuring charges and the sharp decline in plant construction revenues, the Executive Board expects a positive operating result for the full year 2013. More precise figures will be announced in the second half of the year. We currently project a positive operating result for the EnviTec Group for the fiscal year 2014 and will review and, if necessary, update this forecast regularly.

The Executive Board assumes that the drop in plant construction revenues will lead to a negative operating result in the separate financial statements, which may, however, be offset by positive effects from investments through the financial result. The Executive Board's expectations regarding the performance of the Group as a whole will thus also be reflected in the separate financial statements of EnviTec Biogas AG. The foresaid applies to 2014 as well.

## General statement on the future outlook

The framework conditions in Germany are constantly being questioned by policy-makers and are in clear contradiction with the commitment to the announced move towards green energy. As a result, the biogas sector – just like the other renewable energy sources – is lacking the legal and economic planning certainty that is needed to make investments. The structural and personnel adjustments decided by the Executive Board are indispensable to cope with the market environment and

to remain profitable. As a result of these adjustments, EnviTec Biogas has not only a strong technological and financial foundation but also a lean and flexible structure. This is a precondition for defending our leading market position and coping with this difficult phase. We remain convinced of the medium to long-term growth opportunities in Europe and new markets such as the United States.

## Information pursuant to section 289 para. 4 of the German Commercial Code (HGB) and section 315 para. 4 of the German Commercial Code (HGB)

### Composition of the subscribed capital

The share capital of EnviTec Biogas AG is made up of 15,000,000 registered no-par-value shares. There are no different share classes. Each share is fully entitled to vote and share in the dividends. Each share held is entitled to one vote at the Annual General Meeting.

### Restrictions on transfer and voting rights

There are no restrictions on transfer and voting rights other than those that are applicable by law.

### Direct or indirect equity holdings exceeding 10 percent of the voting rights as of 31 December 2012:

Equity holdings	2012	2011
Von Lehmden Beteiligungs GmbH (shares held directly)	48.60%	48.60%
TS Holding GmbH (shares held directly)	21.86%	21.86%
Ruhe Verwaltungs GmbH (shares held directly)	12.02%	12.02%

<sup>1</sup>Indirect equity holdings exceeding 10 percent are to be indicated in the following.

### Shares with special rights granting powers of control

There are no shares with special rights.

### Voting controls if employees hold equity shares and do not exercise their right of control directly

There are no voting controls.

### Statutory regulations and provisions in the statutes concerning the appointment and dismissal of members of the Executive Board and amendment of the statutes

Pursuant to section 76 para. 2 AktG and No. 6.1. of the statutes of EnviTec Biogas AG, the Executive Board may be composed of one or several persons. According to section 84 para. 1 of the German Stock Corporation Act (AktG), the Supervisory Board appoints the members of the Executive Board and determines their period of office. Pursuant to No. 6.1 of the statutes of EnviTec Biogas AG, the Supervisory Board determines the number of Executive Board members. If several persons are appointed members of the Executive Board, the Supervisory Board may appoint one of the members Chairman pursuant to section 84 para. 2 AktG.

Section 179 para. 1 sentence 1 of the German Stock Corporation Act (AktG) stipulates that a resolution must be adopted by the Annual General Meeting for every amendment of the statutes. Pursuant to section 179 para. 2, resolutions that amend the statutes may be adopted by the Annual General Meeting only by a majority representing at least three quarters of the capital present when the resolution is adopted. The statutes may stipulate a different majority, although the majority stipulated for the amendment of the object of the company can only be higher than set out above (section 179 para. 2 of the German Stock Corporation Act (AktG)). This option was used in No. 163 of the statutes of EnviTec Biogas AG, which stipulates that a simple majority of the capital present when the resolution is adopted is sufficient to adopt amendments to the statutes unless a higher majority is required by law or by the statutes. No. 11 of the statutes of EnviTec Biogas AG authorises the Supervisory Board to decide

on amendments of the statutes which only relate to the wording of the statutes.

### **Powers of the Executive Board, particularly with regard to the possibility of issuing or buying back shares**

Board is authorised to increase the company's share capital, with the consent of the Supervisory Board, by up to EUR 7,500,000 altogether, on one or more occasions until 6 July 2016, through cash or non-cash contributions, by issuing new bearer shares with a calculated share in the company's share capital of EUR 1.00 each (authorised capital 2011). Shareholders must be granted a subscription right. Pursuant to section 186 para. 5 AktG, the new shares may also be taken over by a bank or by a consortium of banks with the obligation to offer them to the shareholders for subscription. Subscription rights are excluded in the following cases:

- > In the case of a capital increase through non-cash contributions, in particular for the purpose of acquiring other companies, equity holdings in other companies or parts of other companies,
- > when settling fractional amounts,
- > when granting subscription rights to holders of conversion and option rights to be issued from debentures,
- > for the purpose of issuing shares as staff shares for employees of the company or affiliated companies.

The Executive Board is authorised, subject to the consent of the Supervisory Board, to determine the further details of capital increases from authorised capital.

1. Pursuant to No. 4.4. of the statutes, the share capital of the company is conditionally increased by up to EUR 4,500,000.00 through the issue of up to 4,500,000 new bearer shares, which are entitled to dividend from the beginning of the year in which the shares are issued. This conditional capital increase serves to grant shares to the holders and creditors of bonds with options and/or convertible bonds issued by the company or a subordinated Group on the basis of authorisation granted by the Annual General Meeting on 26 June 2007. The shares will be issued at the option exercise or conversion price to be determined in accordance with the above authorisation. The

conditional capital increase must be effected only to the extent that option and/or conversion rights arising from bonds issued against cash are exercised and/or conversion obligations from such bonds are met and no cash compensation is granted or own shares used to meet such obligations. The Executive Board is authorised to determine the further details of the conditional capital increase (conditional capital I).

2. The Annual General Meeting of 24 June 2010 authorised the company, in accordance with section 71 para. 1 No. 8 AktG, to acquire through the stock exchange own shares representing up to 10% of the share capital that existed at the time the resolution was adopted. The shares acquired on the basis of this authorisation, together with other own shares already acquired and still held by the company or attributable to it pursuant to section 71d or section 71e of AktG, must at no time represent more than 10% of the respective share capital. The company may not use the authorisation for the purpose of trading in own shares. The purchase price per share paid by the company when exercising the authorisation (excluding associated costs) may not be more than 10% higher or lower than the price determined for shares in the company on the respective trading day in the Xetra opening auction of Deutsche Börse AG (or a similar system replacing it). The authorisation may be exercised in full or in partial amounts once or several times by the company, its Group companies or third parties acting on their account. The authorisation to acquire own shares granted on 24 June 2010 will expire as soon as a new authorisation to acquire own shares pursuant to section 71 para. 1 No. 8 AktG becomes effective, with no express revocation being required. This notwithstanding, the authorisation to acquire own shares granted on 24 June 2010 will expire no later than 23 June 2015.

The Executive Board is authorised,

- > subject to the consent of the Supervisory Board, to sell the own shares acquired under the present or a previous authorisation other than fully or partially via the stock exchange or via an offering to all shareholders if the own shares acquired are sold at a cash price that is not materially below the stock market price of the company's shares of the same time at the time of

the sale. This authorisation applies only on the condition that the shares sold ex rights do not represent more than 10% of the company's share capital both at the time of the coming into effect and the exercise of this authorisation. The maximum limit of 10% of the share capital will be reduced by the proportionate amount of the share capital attributable to those shares that are issued in the context of an ex-rights capital increase during the term of this authorisation pursuant to section 186 para. 3 sentence 4 AktG or are necessary to service warrant-linked or convertible bonds that are issued ex rights during the term of this authorisation by analogous application of section 186 para. 3 sentence 4 AktG;

- > subject to the consent of the Supervisory Board, to use own shares acquired under the present or a previous authorisation as (partial) consideration in the context of business combinations or for the acquisition of companies, investments in companies, operations or other assets;
- > eigene Aktien der Gesellschaft, die aufgrund dieser oder einer früher erteilten Ermächtigung erworben wurden, zur Erfüllung von durch die Gesellschaft oder ihren Konzernunternehmen eingeräumten Umtausch- oder Bezugsrechten aus Wandel- oder Optionsschuldverschreibungen zu verwenden;
- > to use own shares acquired under the present or a previous authorisation to satisfy conversion or subscription rights under convertible bonds or bonds with warrants granted by the company or its Group companies;
- > to fully or partially redeem own shares acquired under the present or a previous authorisation, subject to the consent of the Supervisory Board, without any further shareholders' resolution being required.

Shareholders' subscription rights are excluded in the execution of the above measures. The authorisation to use own shares acquired under the present or a previous authorisation may be exercised in full or in partial amounts.

**Significant agreements concluded by the company subject to the condition of a change of control following a takeover bid, and the resultant consequences**

There are no significant agreements concluded by the company subject to the condition of a change of control following a takeover bid.

**Agreements on compensation concluded by the company with members of the Executive Board or employees in the event of a takeover bid**

There are no such agreements at EnviTec Biogas AG.

**The corporate governance declaration required pursuant to section 289a of the German Commercial Code (HGB)**

can be found on our website at

[WWW.ENVITEC-BIOGAS.DE/CORPORATE-GOVERNANCE](http://WWW.ENVITEC-BIOGAS.DE/CORPORATE-GOVERNANCE).

# CON- SOLIDATED FINANCIAL STATEMENTS

## Consolidated profit and loss account for financial year 2012

	2012 in EUR	2011 in EUR	Notes
1. Sales	190,452,055	243,910,084	21.
2. Other operating income	8,700,919	7,617,709	22.
<b>Total performance</b>	<b>199,152,973</b>	<b>251,527,793</b>	
3. Cost of materials	132,552,862	175,748,033	23.
<b>Gross result</b>	<b>66,600,111</b>	<b>75,779,760</b>	
4. Staff costs a) Wages and salaries b) Social security, pensions and other benefits	17,793,226 4,431,299	17,535,814 3,989,948	24.
	<b>22,224,525</b>	<b>21,525,762</b>	
5. Depreciation	13,227,951	9,491,669	25.
6. Other operating expenses	29,849,705	34,003,386	26.
<b>Operating income</b>	<b>1,297,930</b>	<b>10,758,944</b>	
7. Result from at-equity valued participations	114,051	-99,447	27.
8. Interest earnings	4,924,875	2,372,293	28.
9. Interest expenses	3,348,672	2,085,162	29.
<b>Pretax income</b>	<b>2,988,184</b>	<b>10,946,627</b>	
10. Income tax expense	1,880,107	3,226,421	30.
<b>11. Net income</b>	<b>1,108,077</b>	<b>7,720,206</b>	
12. Income inputable to minority interests	-73,365	170,217	
<b>13. Consolidated profit</b>	<b>1,181,442</b>	<b>7,549,989</b>	
<b>Earnings per share in EUR</b>			
Earnings per share in EUR (basic)	0.08	0.51	
Earnings per share in EUR (diluted)	0.08	0.51	31.
<b>Weighted average shares outstanding</b>			
Basic	14,850,000	14,850,000	
Diluted	14,850,000	14,850,000	

## Consolidated Statements of Comprehensive Income for financial year 2012

	12/31/12 in EUR	12/31/11 in EUR
<b>Net income</b>	<b>1.108.077</b>	7.720.206
Changes in fair value of derivates designated as cash flow hedges	-147,745	34,870
<b>Changes recognized outside profit and loss (cash flow hedges)</b>	<b>-147,745</b>	34,870
Exchange differences on translation of operations outside the euro zone	-4,586	-20,009
<b>Changes recognized outside profit and loss (exchange differences)</b>	<b>-4,586</b>	-20,009
<b>Other comprehensive income (changes recognized outside profit and loss)</b>	<b>-152,331</b>	14,861
<b>Total comprehensive income</b>	<b>955,746</b>	7,735,067
of which attributable to minority interests	-73,365	170,217
of which attributable to EnviTec Biogas AG shareholders	1,029,111	7,564,850

## Consolidated balance sheet as at 31 december 2012

### Assets

A.	Fixed assets	12/31/12 in EUR	12/31/11 in EUR	Notes
I.	Intangible Assets	4,850,048	2,719,682	5.
II.	Tangible Assets	126,025,763	86,961,021	5.
III.	Shares in at-equity valuation of participations	8,124,524	6,972,520	6.
IV.	Other long-term receivables	17,901,325	13,683,332	8.
V.	Deferred taxes	2,320,094	1,544,403	30.
<b>Total fixed assets</b>		<b>159,221,754</b>	<b>111,880,958</b>	
B.	Current assets			
I.	Stocks	34,309,425	34,412,949	10.
II.	Receivables from long-term construction contracts	48,387,817	58,168,341	9.
III.	Trade receivables	29,751,203	21,977,551	11.
IV.	Other short-term financial assets	56,554,342	61,786,116	12.
V.	Tax receivables	3,919,222	6,799,187	13.
VI.	Liquid funds	20,650,282	13,853,055	32.
<b>Total current assets</b>		<b>193,572,291</b>	<b>196,997,199</b>	
<b>Total assets</b>		<b>352,794,045</b>	<b>308,878,157</b>	

## Equity and liabilities

A.	Equity	12/31/12 in EUR	12/31/11 in EUR	Notes
I.	Subscribed capital	14,850,000	14,850,000	
II.	Capital reserves	132,995,741	132,995,741	
III.	Revenue reserves			
	1. Currency translation reserves	-79,033	-74,447	
	2. Other reserves	330,707	478,452	
	3. Other revenue reserves	10,000,000	10,000,000	
IV.	Retained earnings brought forward	26,047,926	18,497,937	
V.	Minority interests	-848,551	-444,821	
VI.	Consolidated profit	1,181,442	7,549,989	
<b>Total equity</b>		<b>184,478,233</b>	<b>183,852,851</b>	<b>14.</b>
B.	Non-current liabilities			
I.	Long-term provisions	840,000	594,000	15.
II.	Long-term financial liabilities	81,984,291	46,784,594	16.
III.	Other long-term liabilities	655,089	0	18.
IV.	Deferred taxes	3,833,117	6,080,516	
<b>Total noncurrent liabilities</b>		<b>87,312,497</b>	<b>53,459,110</b>	
C.	Current liabilities			
I.	Short-term provisions	12,331,310	9,523,734	15.
II.	Short-term financial liabilities	32,165,651	35,499,564	16.
III.	Trade payables	28,088,875	16,570,931	17.
IV.	Liabilities from long-term construction orders	1,647,498	3,645,129	9.
V.	Other short-term liabilities	5,911,872	3,052,614	18.
VI.	Tax liabilities	858,108	3,274,225	19.
<b>Total current liabilities</b>		<b>81,003,315</b>	<b>71,566,196</b>	
<b>Total equity and liabilities</b>		<b>352,794,045</b>	<b>308,878,157</b>	

## Consolidated cash flow statement for financial year 2012

	2012 in EUR	2011 in EUR
Consolidated net income before minority interests	1,108,077	7,720,206
Income tax expenses	1,880,107	3,226,421
Net interest income	-1,576,203	-287,131
Profit (-) losses (+) from at-equity companies	-55,699	1,095,962
Paid income tax	-1,132,130	-3,003,477
Depreciation on fixed and current assets	13,227,951	9,491,669
Increase in other provisions	3,053,576	843,435
Profit (-) losses (+) on the sale of tangible assets	-55,085	-27,304
<b>Gross cash flow</b>	<b>16,450,593</b>	<b>19,059,781</b>
Decrease/increase in stocks	103,524	-9,444,432
Decrease/increase in receivables from long-term construction contracts	9,780,524	-104,533
Decrease/increase in liabilities from long-term construction contracts	-1,997,631	312,457
Decrease/increase in trade receivables	-7,889,908	145,911
Increase in trade payables	11,517,944	2,167,211
Increase in other long-term liabilities	655,089	0
Decrease/increase in other short-term assets	4,065,151	-17,362,369
Decrease in other long-term receivables	-4,217,993	-984,106
Increase/decrease in deferred taxes	-775,691	421,705
Increase/decrease in other short-term liabilities	2,859,258	-727,668
Decrease/increase in tax receivables	2,879,965	-2,247,851
Decrease/increase from transaction tax and tax deductions	-5,411,493	2,976,153
Other non cash payments	-482,729	65,596
Interest received	4,924,875	2,372,293
<b>Flow from operative activities (net cashflow)</b>	<b>32,461,478</b>	<b>-3,349,852</b>

	12/31/12 in EUR	12/31/11 in EUR
<b>Proceeds from derecognition</b>	0	439,124
<b>Proceeds from disposals of tangible assets</b>	422,274	136,180
<b>Payments for intangible assets</b>	-2,398,718	-131,934
<b>Payments for tangible assets</b>	-51,224,907	-34,662,512
<b>Payments for at-equity investments</b>	-1,917,487	-2,813,324
<b>Proceeds from partnership drawing for at-equity investments</b>	320,000	105,000
<b>Proceeds from sale of at-equity investments</b>	501,182	0
<b>Inflow of cash and cash equivalents due to business combinations</b>	116,256	0
<b>Flow from investment activities</b>	<b>-54,181,400</b>	-36,927,466
<b>Proceeds from bank loans</b>	45,118,226	46,132,998
<b>Payments for debt redemption</b>	-28,054,513	-3,808,439
<b>Increase in other long-term financial liabilities</b>	-356,272	433,779
<b>Increase in other short-term financial liabilities (without short-term bank loans and overdrafts)</b>	15,158,380	669,588
<b>Interest paid</b>	-3,348,672	-2,085,162
<b>Flow from financial activities</b>	<b>28,517,149</b>	41,342,764
<b>Change in cash and cash equivalents</b>	<b>6,797,227</b>	1,065,445
<b>Cash balance on 1 January</b>	<b>13,853,055</b>	12,787,610
<b>Cash and cash equivalents balance on 31 December</b>	<b>20,650,282</b>	13,853,055

## Statement of changes in equity as at 31 december 2012

in EUR	Subscribed Capital	Capital reserves	Revenue reserves	Currency translations reserves
<b>Balance at 01/01/11</b>	<b>14,850,000</b>	<b>132,995,741</b>	<b>443,582</b>	<b>-54,438</b>
Reclassifications	0	0	0	0
Minority interests	0	0	0	0
Income	0	0	0	0
Other comprehensive income	0	0	34,870	-20,009
<b>Balance at 12/31/11</b>	<b>14,850,000</b>	<b>132,995,741</b>	<b>478,452</b>	<b>-74,447</b>
<b>Balance at 01/01/12</b>	<b>14,850,000</b>	<b>132,995,741</b>	<b>478,452</b>	<b>-74,447</b>
Reclassifications	0	0	0	0
Minority interests	0	0	0	0
Income	0	0	0	0
Other comprehensive income	0	0	-147,745	-4,586
<b>Balance at 12/31/12</b>	<b>14,850,000</b>	<b>132,995,741</b>	<b>330,707</b>	<b>-79,033</b>

Other revenue reserves	Retained earnings brought forward	Consolidated profit/loss	Total shareholders interests	Minority interests	Total
10,000,000	16,207,764	2,290,173	176,732,822	-665,773	176,067,049
0	2,290,173	-2,290,173	0	0	0
0	0	0	0	50,735	50,735
0	0	7,549,989	7,549,989	170,217	7,720,206
0	0	0	14,861	0	14,861
10,000,000	18,497,937	7,549,989	184,297,672	-444,821	183,852,851
10,000,000	18,497,937	7,549,989	184,297,672	-444,821	183,852,851
0	7,549,989	-7,549,989	0	0	0
0	0	0	0	-330,365	-330,365
0	0	1,181,442	1,181,442	-73,365	1,108,077
0	0	0	-152,331	0	-152,331
10,000,000	26,047,926	1,181,442	185,326,783	-848,551	184,478,233



# NOTES TO THE 2012 CONSOLIDATED FINANCIAL STATEMENTS

## 1. General information

In accordance with section 315a of the German Commercial Code (HGB), the consolidated financial statements of EnviTec Biogas AG for the year ended 31 December 2012 were prepared to the International Financial Reporting Standards (IFRS) of the International Accounting Standard's Board (IASB), London, valid at the balance sheet date and recognised by the European Union, as well as the interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

EnviTec Biogas AG is a Germany-based company operating on an international scale, whose main activity is the construction and sale of biogas plants; through its subsidiaries, the company also operates its own biogas plants and provides technical and biological services.

Headquartered in Lohne (Oldenburg), Industriering 10a, Germany, EnviTec Biogas AG is the parent company of the EnviTec Group and adopted the status of a listed joint stock company under German law in July 2007. The consolidated financial statements and the Group Management Report of EnviTec Biogas AG for the year ended 31 December 2012 are available via the electronic Federal Gazette and the Company Register as well as our website [www.envitec-biogas.de](http://www.envitec-biogas.de).

On 24 April 2013, the Executive Board of EnviTec Biogas AG released the consolidated financial statements for presentation to the company's Supervisory Board. The latter has the task to review the consolidated financial statements and to declare whether they are approved.

The information below comprises disclosures and comments which, in addition to the income statement, the statement of comprehensive income, the balance sheet, the statement of changes in equity, the segment report and the cash flow statement, must be included in the consolidated financial statements as notes in accordance with IFRS.

The financial statements were prepared in euros. Unless otherwise stipulated, all amounts are rounded to full euros (EUR) or to thousands of euros (EUR k).

In the income statement, as well as in the balance sheet, individual items are combined for purposes of clarity and explained in the Notes. The nature of

expense method was used to prepare the income statement. Assets and liabilities are classified in the balance sheet in accordance with their maturities. Assets and liabilities are regarded as current if they are due or to be sold within one year; accordingly, assets and liabilities are classified as non-current if they are likely to be held by the company for more than one year. Trade receivables and payables as well as inventories and construction contracts are generally recognised as current items. Deferred taxes are generally recognised as non-current.

## 2. Effects of new financial reporting standards

### 2.1. Financial reporting standards first applied in the fiscal year

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRS IC) have adopted a number of amendments to existing International Financial Reporting Standards (IFRS) as well as several new IFRS and interpretations, which are effective for the EnviTec Group from the fiscal year 2012.

IFRS 7 "Financial Instruments (2010) – Disclosure Requirements for Transfer of Financial Assets"

### 2.2. Newly published financial reporting standards that have not been applied yet

The International Accounting Standards Board (IASB) and the International Financial Reporting Interpretations Committee (IFRS IC) have adopted additional standards and interpretations, whose application was not mandatory for fiscal 2012. Application of these IFRS requires their approval by the EU, which has not yet been granted for all of them. The company did not opt for early application.

The following new and revised standards and interpretations are effective from 2013 or thereafter subject to EU endorsement. The impacts of these standards and the time at which they will be applied are currently being reviewed.

Standard	Regulation	Effective date	Expected effects
IFRS 9	Financial Instruments	01/01/2015	Still being reviewed
IFRS 10	Consolidated Financial Statements	01/01/2014	No material changes
IFRS 11	Joint Arrangements	01/01/2014	No material changes
IFRS 12	Disclosure of Interests in Other Entities	01/01/2014	Still being reviewed
IFRS 13	Fair Value Measurement	01/01/2013	No material changes
IAS 28	Investments in Associates and Joint Ventures	01/01/2014	No material changes
IAS 1	Presentation of Items of Other Comprehensive Income	01/01/2013	No material changes
IAS 19	Employee Benefits	01/01/2013	No material changes
IFRS 10-12	Consolidated Financial Statements, Joint Arrangements and Disclosure of Interests in Other Entities: Transitional Provisions	01/01/2013	No material changes
IAS 12	Deferred Tax	01/01/2013	No material changes
IFRS 7/IAS 32	(Disclosures on) Offsetting Financial Assets and Financial Liabilities	01/01/2013 (applies to IFRS 7) 01/01/2014 (applies to IAS 32)	No material changes

In the context of the Annual Improvements Process (2009-2011), a number of minor amendments were made, which are effective for annual periods beginning on or after 1 January 2013. These amendments relate to IFRS 1, IAS 1, IAS 16, IAS 32 and IAS 34. They have no material impact on the consolidated financial statements of EnviTec.

### 3. Basic principles of the consolidated financial statements

#### 3.1. Basis of consolidation and consolidation methods

The consolidated financial statements of EnviTec Biogas AG include those companies in which EnviTec Biogas AG has either directly or indirectly the majority of the voting rights (subsidiaries), insofar as their influence on the net worth, financial and earnings position of the Group is not of subordinate significance. Inclusion is from that point in time when the possibility of control comes into existence. It is terminated when the possibility of control no longer exists.

If required, the financial statements of subsidiaries are adjusted to align the accounting and valuation methods with those applied by the Group.

Business combinations are accounted for in accordance with IAS 27 (Consolidated Financial Statements and Accounting for Investments in Subsidiaries) using the

purchase method by netting the carrying amounts of the investments with the remeasured equity capital of the subsidiaries at the time of their acquisition. Assets, liabilities and contingent liabilities of acquired subsidiaries are recognised at their respective fair values. A positive difference remaining after the purchase price allocation is capitalised as goodwill, while negative differences are immediately recognised in profit or loss upon subsequent review.

Receivables and liabilities between the consolidated companies are netted. Unrealised results of intragroup transactions are eliminated, and deferred tax assets and liabilities resulting from consolidation recognised in profit or loss are taken into account. Intragroup sales as well as all intragroup earnings are netted with the respective expenses and recognised in equity.

The equity method is used to measure joint ventures and associated companies which are under the joint management (joint ventures) or controlling influence (associated companies) of EnviTec Biogas AG. The cost of investments consolidated at equity is increased or reduced each year by the equity changes that correspond to EnviTec's share in the capital. Upon the initial

consolidation of investments using the equity method, differences resulting from the initial consolidation are treated according to the principles of full consolidation. The changes in pro-rated equity which are recognised in profit or loss are shown separately in the income statement. The Notes to the consolidated financial statements include additional information on the EnviTec Group's at-equity investments. Goodwill included in a recognised investment is tested for impairment once a year and whenever there are indications of impairment. The share in associated companies' other comprehensive income is shown in the EnviTec Group's other comprehensive income on a pro-rated basis.

The same consolidation methods as in the previous year were applied.

Changes in the basis of consolidation and the consolidated companies are addressed below.

### 3.2. Basis of consolidation

The basis of consolidation in the period from 1 January 2012 until 31 December 2012 had developed as follows:

	Germany	Abroad	Total
<b>EnviTec Biogas AG and consolidated companies</b>			
12/31/11	102	32	134
Additions of subsidiaries	9	1	10
Disposal of subsidiaries	0	1	1
<b>12/31/12</b>	<b>111</b>	<b>32</b>	<b>143</b>
<b>Companies valued at equity</b>			
12/31/11	58	7	65
Additions of companies valued at equity	7	0	7
Disposal of companies valued at equity	5	0	5
<b>12/31/12</b>	<b>60</b>	<b>7</b>	<b>67</b>

As at the balance sheet date, the EnviTec Group comprised 210 (previous year: 199) companies, including EnviTec Biogas AG, of which 143 (previous year: 134) are fully consolidated. For a list of the subsidiaries and

associated companies, refer to point 7. The list of shareholdings is published in the electronic Federal Gazette. The changes to the basis of consolidation in the fiscal year 2012 are shown in the table below:

Name and head offices of the company	Capital share in %
<b>Addition Germany</b>	
Biogas Lampertheim GmbH & Co. KG, Darmstadt	70.00
Biogas Lampertheim Verwaltungs GmbH, Darmstadt	70.00
Biogas Elsteraue GmbH & Co. KG, Lohne	100.00
Erste Biogas Bützow GmbH & Co. KG, Bützow	100.00
Dritte Biogas Bützow GmbH & Co. KG, Bützow	54.40
Vierte Biogas Bützow GmbH & Co. KG, Bützow	60.50
Fünfte Biogas Bützow GmbH & Co. KG, Lohne	100.00
Dritte EnviTec Verwaltungs GmbH, Lohne	100.00
Zweite Biogas Neese GmbH & Co. KG, Vechta	100.00
<b>Addition outside Germany</b>	
EnviTec Biogas Service s.r.o., Czech Republic	85.00
<b>Disposals</b>	
Biogas Varadzin d.o.o., Zagreb/Croatia	85.00

## Additions

In the course of the fiscal year, three domestic and one foreign company were established and joined the basis of consolidation. The newly established domestic companies are project companies of the Own Plant Operation segment, whose business purpose is the operation of biogas plants at one or several sites. The newly established Czech company forms part of the Service segment; its purpose is the provision of services for biogas plants.

Under an agreement dated 25 April 2012, EnviTec Biogas Betriebs GmbH & Co. KG acquired 100% of the limited liability capital in the amount of EUR 10k from Biogas Elsteraue GmbH & Co. KG at a price of EUR 10k. This acquisition was not accounted for in accordance with IFRS 3 "Business Combinations", as it does not meet the definition of a "business". Instead, the acquisitions were accounted for as the acquisition of a group of

assets; the acquisition costs of the group were allocated to the individual identifiable assets and liabilities on the basis of the present value.

On 8 June 2012, which is also the effective acquisition date, EnviTec Biogas AG acquired 100% of the limited liability capital of EUR 400k of Zweite Biogas Neese Betriebs GmbH & Co. KG. In conjunction with the acquisition of the shares in Zweite Biogas Neese Betriebs GmbH & Co. KG, another 4 companies, which form part of the sub-group of Zweite Biogas Neese Betriebs GmbH & Co. KG, joined the basis of consolidation due to a change in the majority shareholdings. In addition of this acquisition one company is accounted for using the equity method. As a result of the acquisition, consolidated sales revenues increased by EUR 1,898k, while consolidated net income was reduced by EUR 277k. If the acquisition had taken place on 1 January 2012, the Group's sales revenues would have increased by approx. EUR 1,421k and consolidated net income would have

been reduced by approx. EUR 14k in accordance with the company's results. The purchase price of EUR 1 million was offset against corresponding claims against the seller. The acquired assets primarily included property, plant and equipment as well as inventories.

The initial consolidation of the acquired subsidiaries resulted in goodwill of EUR 2,129k, which was treated in accordance with IFRS 3.51 et seq. In particular, the realisation of a plant, which was at the project development stage at the time of the acquisition, and the sophisticated heat management concept led to the positive future expectations which are reflected in goodwill.

The 5 biogas plants and the parent company were acquired to further expand the Own Plant Operation segment. Due to the technology used, the companies blend in seamlessly with the portfolio of the EnviTec Group.

The table below shows the fair values for each class of assets and liabilities of the acquired company at the acquisition date pursuant to IFRS 3.67f:

	Fair value at the acquisition date in EUR k
Non-current assets	5,347
Current assets	2,933
thereof liquid funds	116
Non-current liabilities	5,178
Current liabilities	2,517

The amount of the non-controlling share recognised as of the acquisition date is EUR 212k. It was measured based on the fair values at the acquisition date.

On 24 May 2012, which is also the effective acquisition date, EnviTec Biogas Betriebs GmbH & Co. KG acquired 50% each of the limited liability capital of EUR 360k of Biogas Gallin I GmbH & Co. KG and of Biogas Gallin II GmbH & Co. KG at a total purchase price of EUR 1,096k. The assets acquired primarily included property, plant and equipment as well as maize stocks.

The table below shows the fair values for each class of assets and liabilities of the acquired company at the acquisition date pursuant to IFRS 3.67f:

	Fair value at the acquisition date in EUR k
Non-current assets	2,212
Current assets	1,228
Non-current liabilities	2,015
Current liabilities	911

The companies were acquired to further expand the Own Plant Operation segment. Due to the technology used, the companies blend in seamlessly with the portfolio of the EnviTec Group.

In addition, four new companies accounted for using the equity method were established, whose purpose is also the operation of biogas plants.

### Further changes

Effective 1 January 2012, EnviTec Biogas AG acquired another 12% of the limited liability capital of EUR 500k in eeMaxx Anlagen- und Betriebs GmbH & Co. KG as well as another 12% of the share capital of EUR 25k of eeMaxx Verwaltungs GmbH at a price of EUR 814k. The acquisition did not lead to a change of status and was treated as a transaction between equity investors and recognised in equity. The acquisition reduced the minority interest by EUR 3k.

### Disposals

Three 50% investments in biogas plants were removed from the basis of consolidation. In 2012, EnviTec Biogas AG sold its shares to the respective co-shareholders. Moreover, EnviTec sold two 44% investments to the majority shareholder. From these transactions, the Group generated liquid funds of EUR 501k and a profit of EUR 161k. Furthermore a not operating croatian subsidiary was dissolved.

Five (previous year: five) joint ventures as well as 62 (previous year: 60) companies in which EnviTec holds more than 20% are consolidated at equity pursuant to IAS 31 and IAS 28, respectively. As far as the associated companies in which a 50% stake is held are concerned, significant influence results only from contractual or actual circumstances.

In fiscal 2012, the exemption rule provided for in section 264b of the German Commercial Code (HGB) was applied by the following fully consolidated German Group companies.

Name and head office of the company	
EnviTec Beteiligungs GmbH & Co. KG, Lohne	ETBKN GmbH & Co. KG, Lohne
Zweite EnviTec Beteiligungs GmbH & Co. KG, Lohne	Biogas Sachsendorf GmbH & Co. KG, Schwarz
RePro Beber GmbH & Co. KG, Lohne	Biogas Dambeck GmbH & Co. KG, Friesoythe
Biogas Schönthal GmbH & Co. KG, Willebadessen	Biogas Schenkenhorst GmbH & Co. KG, Garrel
Biogas Thomasburg GmbH & Co. KG, Lohne	Biogas Kalbe GmbH & Co. KG, Garrel
Biogas Nieheim GmbH & Co. KG, Lohne	Biogas Brehna GmbH & Co. KG, Garrel
Biogas Heilemann GmbH & Co. KG, Rotenburg/Wümme	Biogas Schönhausen GmbH & Co. KG, Garrel
Biogas Friedland GmbH & Co. KG, Lohne	Biogas Düben GmbH & Co. KG, Garrel
Biogas Angern GmbH & Co. KG, Lohne	Biogas Pinnow GmbH & Co. KG, Garrel
Biogas Hirl GmbH & Co. KG, Bresegard	Biogas Glauzig GmbH & Co. KG, Garrel
EnviTec Biogas Betriebs GmbH & Co. KG, Lohne	Biogas Dingelstedt GmbH & Co. KG, Garrel
Biogas Straußfurt GmbH & Co. KG, Lohne	eeMaxx Anlagen- und Betriebs GmbH & Co. KG, Garrel
Biogas Wanzleben GmbH & Co. KG, Wanzleben	Biogas Wesenberg GmbH & Co. KG, Lohne
Erste Biogas Anklam Betriebs GmbH & Co. KG, Anklam	Biogas Osterburg GmbH & Co. KG, Lohne
Zweite Biogas Anklam Betriebs GmbH & Co. KG, Anklam	Biogas Klein Mühlingen GmbH & Co. KG, Vogelsang
Dritte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	Biogas Ringleben GmbH & Co. KG, Lohne
Vierte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	Biogas Gramzow GmbH & Co. KG, Lohne
Fünfte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	Biogas Weyhausen GmbH & Co. KG, Garrel
Sechste Biogas Anklam Betriebs GmbH & Co. KG, Lohne	Biogas Oderau Gmbh & Co. KG, Garrel
EWS Biogas Projektentwicklungs-GmbH & Co. KG, Lohne	Biogas Neutrebbin GmbH & Co. KG, Neutrebbin
Biogas Kälefeld GmbH & Co. KG, Kälefeld	Biogas Trüstedt GmbH & Co. KG, Garrel
Biogas Stegelitz GmbH & Co. KG, Lohne	Biogas Mühlengeeze Gmbh & Co. KG, Garrel
Biogas Herzberg GmbH & Co. KG, Lohne	Biogas Böddenstedt GmbH & Co. KG, Salzwedel
Biogas Lüchow GmbH & Co. KG, Lohne	Biogas Schönwalde GmbH & Co. KG, Schönwalde
Biogas Greifswald GmbH & Co. KG, Lohne	EnviTec Stromkontor GmbH & Co. KG, Lohne
EnviTec Energy GmbH & Co. KG, Lohne	Biogas Lampertheim GmbH & Co. KG, Darmstadt
Biogas Quakenbrück GmbH & Co. KG, Lohne	Biogas Elsteraue GmbH & Co. KG, Lohne
Biogas Topfstedt GmbH & Co. KG, Lohne	Erste Biogas Bützow GmbH & Co. KG, Bützow
Biogas Groß Warnow GmbH & Co. KG, Karstt	Dritte Biogas Bützow GmbH & Co. KG, Bützow
Biogas Falkenberg GmbH & Co. KG, Falkenberg	Vierte Biogas Bützow GmbH & Co. KG, Bützow
EnviTec Service GmbH & Co. KG, Lohne	Fünfte Biogas Bützow GmbH & Co. KG, Lohne
Biogas Heilemann-Holsten GmbH & Co. KG, Rotenburg	Zweite Biogas Neese GmbH & Co. KG, Vechta

### 3.3. Currency translation

Receivables and liabilities generally arise on a euro basis, which means that no currency translation is required. The financial statements of the consolidated companies are prepared in euros save for seven exceptions. The equity is translated at the historical rates, the assets and liabilities in the foreign-currency financial statements are translated at the mean rates on the balance sheet date. Expense and income items are translated at average annual exchange rates. Exchange differences are recognised in equity. For details, please refer to the statement of changes in equity and the statement of comprehensive income. The foreign-currency financial statements of the companies valued at equity are translated using the closing rate method.

### 3.4. General accounting and valuation principles

The financial statements of the companies included in the consolidated financial statements are based on consistent accounting and valuation methods.

The acquisition cost principle was used as the general measurement concept in the consolidated financial statements. Where other measurement principles are required under IFRS, these are used. In the following information on the measurement of asset and liability items, this is specifically mentioned.

#### Sales revenues and other operating income

Sales revenues from the sale of completed biogas plants – after tax and sales deductions – are realised at the time delivery is taken of the plants. Sales revenues from construction contracts for biogas plants that have not been completed or of which delivery has not been taken as at the balance sheet date are determined using the percentage-of-completion (POC) method. In this context, both the percentage of the work completed in relation to the total volume of the contract and the profit from the complete contract are estimated and realised accordingly.

Revenues from the sale of goods are recognised at the time when the material risks and benefits associated with ownership of the goods sold have been transferred to the buyer and the realisable revenues can be reliably determined. Where it is not likely that the company will

gain the economic benefit from the sale, no revenues are recognised. Sales revenues are shown net of reductions in revenues such as discounts, bonuses or rebates. Revenues from services are recognised in the period in which the service is rendered.

#### Goodwill and other intangible assets

Purchased intangible assets are capitalised at cost. If they have a determinable useful life, they are written off over a period of up to ten years using the straight-line method, unless the actual depreciation requires a write-off depreciation period. Both the expected useful lives and the write-off periods are determined on the basis of estimates of the period and the distribution of cash flows from the intangible assets over time.

Development expenses were not capitalised pursuant to IAS 38, as the conditions for their capitalisation were not in place as at the balance sheet date.

Goodwill is not amortised but tested for impairment on an annual basis. For details of the impairment test, please refer to point 3.7 "Impairment test".

#### Property, plant and equipment

Property, plant and equipment are carried at acquisition or production costs less accumulated straight-line depreciation – with the exception of land and leasehold rights – and impairment losses.

Acquisition costs comprise the purchase price, ancillary costs and subsequent acquisition expenditure as well as cost reductions.

Production costs include all direct costs attributable to the production process and a reasonable portion of the production-related overheads. Financing costs are not recognised.

The cost of the repair of property, plant and equipment, such as current maintenance expenses, are generally recognised in profit or loss. Subsequent costs are capitalised if the costs relating to the property, plant or equipment will result in a future economic benefit.

Accumulated depreciation of property, plant and equipment is performed according to the straight-line method.

The useful lives on which depreciation is based reflect

the estimated/anticipated useful lives for the Group and are shown in the table below:

	Useful life
Buildings	20 to 40 years
Other buildings	10 to 20 years
Technical equipment	6 to 20 years
Machinery and appliances	6 to 12 years
Operating and office equipment	3 to 11 years
Vehicles	5 to 8 years
EDP equipment	3 to 5 years

## Financial assets

Financial assets are generally divided into the following categories:

- > financial assets measured at fair value through profit or loss
- > loans and receivables
- > held-to-maturity investments
- > available-for-sale financial assets

The classification of a financial asset into a given category depends on the purpose for which the financial asset was acquired.

### Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss comprise financial assets held for trading as well as all financial assets that are to be measured at fair value by the management from the very beginning at the time of acquisition. Assets of this category in the amount of EUR -42k (previous year: EUR 41k) are recognised in the 2012 consolidated financial statements of EnviTec Biogas AG.

## Loans and receivables

Loans and receivables are original or acquired loans and receivables with fixed or determinable payments, which are not listed in an active market. They are usually created by providing money, goods or services. They form part of the current assets, with the exception of those loans and receivables that are due more than twelve months after the balance sheet date. Financial instruments of this category are measured at amortised cost. Trade receivables, financial receivables and loans included in other non-current receivables, receivables and loans included in other current financial assets as well as cash and cash equivalents fall into this category. If there are indications that a receivable is impaired, it is written down to the present value of the expected future cash flows. Indications of impairment include, in particular, several years in which the entity reported operating losses, a substantial deterioration in creditworthiness, a high probability of bankruptcy or other forms of financial reorganisation of the debtor. Loans and receivables are shown under trade receivables and other current assets.

### Held-to-maturity investments

Held-to-maturity investments are characterised by: fixed or determinable payments, fixed maturity and the intent and ability of EnviTec Biogas AG to hold these investments to maturity. No financial assets of this category are recognised in the 2012 consolidated financial statements of EnviTec Biogas AG.

### Available-for-sale financial assets

This category comprises all financial assets that do not fall in any of the other three categories or that are subjectively classified by the management as available-for-sale financial assets. The assets are generally measured at the fair value. Gains and losses resulting from the fair value measurement are recognised in equity. This does not apply to permanent or material impairments or currency-related changes in the value of financial instruments. These are recognised in profit or loss.

At every balance sheet date, the company examines whether there are objective indications of an impairment of a financial asset or a group of financial assets.

## Inventories

In accordance with IAS 2 (Inventories), assets that are consumed in the execution of construction contracts (materials or supplies) are recognised under inventories. Inventories are measured at the average costs of purchase. If the current purchase price is lower than the average costs of purchase, inventories are recognised at the lower value, unless they are incorporated in finished products that are expected to be sold at or above cost (IAS 2.32). Borrowing costs are not capitalised as the requirements of IAS 23 are not met.

The costs of purchase include all costs incurred to convey the inventories to their present place and to put them in their present state.

## Construction contracts in progress

In accordance with IAS 11, construction contracts are accounted for using the percentage-of-completion (POC) method. The underlying stage of completion is determined using the cost-to-cost method. Contracts whose revenues exceed the advance payments received as at the balance sheet date are recognised under the gross amount due from customers for contract work. Contracts whose advance payments received exceed the revenues as at the balance sheet date are recognised under the gross amount due to customers for contract work.

## Held-for-sale assets

Non-current assets are classified as being held for sale if the associated carrying amount is realised largely through a sales transaction and not through continuous use. This condition will be regarded as fulfilled only if the disposal is highly probable and the non-current asset is available for immediate sale in its current condition. Management must have committed to a sale. In this context, it must be assumed that the sales transaction will take place within a year of such classification.

Non-current assets classified as being held for sale are shown at the lower of their original carrying amount and the fair value less costs to sell.

## Deferred taxes, tax liabilities, tax refund claims

Taxes imposed on the companies' taxable income and the changes to deferred taxes are recognised as income taxes. Current income taxes are measured on the basis of the statutory regulations enacted or substantially enacted

as at the balance sheet date at the amount in which they are expected to be paid.

Deferred taxes are calculated in accordance with IAS 12 (Income Taxes). Deferred taxes are determined for temporary differences between the asset and liability amounts recognised in the IFRS balance sheet (carrying amounts) and the tax balance sheet (tax base), for consolidation as well as for tax loss carryforwards that are likely to be utilised. The calculation is based on the tax rates expected to apply at the time of utilisation. These are based on the tax laws that are applicable on the balance sheet date. Deferred tax assets and liabilities are offset if they refer to taxes levied by the same tax authority.

Deferred tax assets for deductible temporary differences and tax loss carryforwards are capitalised if it is probable that future taxable profit will be available against which the tax loss carryforwards can be utilised. The assessment of the value of deferred tax assets resulting from temporary differences and tax loss carryforwards are subject to an entity's individual projections, e.g., regarding the future profit situation of the respective Group company.

For more information on income taxes, refer to point 30 in the Notes.

## Provisions

Provisions are established for obligations resulting from past events that will probably lead to an outflow of resources and whose amount can be estimated reliably.

Other provisions are measured in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets), with the best estimate of the expenses that would be needed to meet the current obligation as at the balance sheet date.

Potential legal disputes and administrative proceedings are examined on a case-to-case basis. We assess the possible outcomes of such legal disputes on the basis of available information and following consultation with our lawyers.

## Financial liabilities

Financial liabilities relate to original and derivative liabilities.

Original liabilities are measured at amortised cost.

This means that current liabilities are recognised at the repayment or settlement amount. Non-current financial liabilities are recognised at amortised cost.

Derivatives are initially recognised at the fair value at the time the contract is signed and are subsequently measured at the fair value at each reporting date. The resulting gain or loss is immediately recognised in profit or loss unless the derivative qualifies for hedge accounting. In this case, the time of recognition in profit or loss depends on the type of hedge.

Financial liabilities are derecognised if the contractual obligation is discharged, cancelled or expires.

### **Other assets and other liabilities**

Deferrals, advance payments as well as non-financial assets and liabilities are recognised at amortised cost. They are released on a straight-line basis or in accordance with the performance of the service.

### **Hedging instruments**

The company designates hedging instruments to secure cash flows (CF hedges). Initially the security relationship between the hedging instrument and the underlying base transaction will be documented.

Furthermore it will be initially and continuously documented whether the hedging instrument is highly effective. In the case of a cash flow hedge applies that the effective part of a change of the fair value of a cash flow hedge designated derivative will be recognized in the other income. Ineffective changes in the fair value will be immediately recognized in profit or loss. Amounts that are recognized in other income will transferred to the profit and loss in the period in which the underlying base transaction will be recognized in the p+I. The documentation ends, when the group dissolves the security relation, the term of the hedging instruments ends, the hedging instrument will be excised, sold or ended or the hedging instrument is not suitable for security purposes any longer. The full amount that is recognized in other income and in the equity accumulated profit or loss at that point in time will remain in the equity and will be recognized in the p+I if the expected transaction will be recognized in the p+I. If the realization of the expected transaction is unlikely, the full amount that is recognized in equity will be transferred into the p+I.

### **3.5. Statement of cash flows**

The statement of cash flows shows the changes in cash and cash equivalents in the course of the fiscal year as a result of the inflow and outflow of funds. In accordance with IAS 7, a distinction is made between cash flows from operating, investing and financing activities. The liquidity shown in the capital finance account includes cash in hand as well as cash in banks.

### **3.6. Segment reporting**

Pursuant to IFRS 8, operating segments must be separated from Group segments on the basis of internal reporting, which is regularly reviewed by the chief operating decision-maker to make decisions about resources to be allocated to the segment and assess its performance.

In view of the product-oriented management of the business activity of the EnviTec Group, the company continued to identify the following segments: Plant Construction, Own Plant Operation and Service, which are also used for internal reporting. The segment Energy has recently been integrated into the internal reporting. This segment sells EEG electricity to the market.

Plant Construction comprises the planning, approval planning and construction of biogas plants, while the Service segment comprises the technical and biological maintenance of biogas plants. The Own Plant Operation segment comprises the company's own biogas plants.

in kEUR	Plant Construction	Service	Own Plant Operation	Energy	Reconciliation	Group
	2012	2012	2012	2012	2012	2012
<b>Sales revenues</b>						
- External revenues	124,622	17,412	40,794	7,624	0	190,452
- Internal revenues	6,322	3,459	5,609	19	-15,409	0
Operating result	-4,229	25	5,904	-402	0	1,298
Cost of materials	95,474	13,419	22,920	7,570	-6,830	132,553
Personnel expenses	16,143	3,797	1,940	344	0	22,224
Other operating expenses	21,570	2,088	11,271	350	-5,429	29,850
At-equity result	0	0	114	0	0	114
Interest income	4,674	23	202	26	0	4,925
Interest expense	986	1	2,361	1	0	3,349
Income taxes	1,938	264	-326	4	0	1,880
Earnings after taxes	333	1,843	1,321	-363	-1,953	1,181
Segment assets	306,285	13,576	206,185	3,736	-176,988	352,794
Segment liabilities	108,629	7,649	163,387	3,185	-114,534	168,316
Depreciation/amortisation	4,213	128	10,074	9	-1,196	13,228
Capital expenditure	1,457	220	51,581	365	0	53,623
Carrying amounts of investments accounted for at equity	0	0	8,125	0	0	8,125
	2011	2011	2011	2011	2011	2011
<b>Sales revenues</b>						
- External revenues	201,004	14,352	28,554	0	0	243,910
- Internal revenues	5,208	3,694	4,439	0	-13,341	0
Operating result	7,729	-1,577	4,607	0	0	10,759
Cost of materials	153,742	12,410	16,257	0	-6,661	175,748
Personnel expenses	17,262	2,828	1,435	0	0	21,525
Other operating expenses	26,930	1,595	9,535	0	-4,057	34,003
At-equity result	0	0	-99	0	0	-99
Interest income	2,130	2	240	0	0	2,372
Interest expense	635	10	1,440	0	0	2,085
Income taxes	2,477	180	569	0	0	3,226
Earnings after taxes	8,432	-1,728	3,125	0	-2,279	7,550
Segment assets	277,203	11,089	148,970	0	-128,384	308,878
Segment liabilities	85,043	6,826	108,827	0	-75,671	125,025
Depreciation/amortisation	3,682	103	6,051	0	-344	9,492
Capital expenditure	2,034	261	32,500	0	0	34,795

Write-downs for impairment	443	0	0	0	0	443
Carrying amounts of investments accounted for at equity	0	0	6,973	0	0	6,973

The accounting and valuation principles of the reportable segments are the same as those described under 3.4 above. This also applies to business transactions between the segments. Reconciliation effects relate to intragroup transactions.

The regional segmentation is based on the country in which the construction activity takes place / services are provided and is shown in the table below:

in kEUR	Sales revenues		Non-current segment assets	
	2012	2011	2012	2011
Germany	101,785	180,775	169,326	117,002
Czech Republic	16,278	16,948	1,484	868
Italy	51,620	26,150	35,819	4,166
Other countries	20,769	20,037	706	661
Reconciliation	0	0	-48,171	-10,816
Group	190,452	243,910	159,164	111,881

Of the sales revenues generated by the Plant Construction segment, EUR 5.6 million (previous year: EUR 16.6 million) were related to the Group's largest customer. The second largest customer accounted for EUR 5.6 million (previous year: EUR 6.5 million).

EUR 16.9 million (previous year: EUR 8.7 million) of the sales revenues generated by the Own Plant Operation segment were related to the segment's largest customer, while the second largest customer accounted for EUR 11.3 million (previous year: EUR 8.5 million). No other customers accounted for more than 10% of the sales revenues.

### 3.7. Impairment test

Pursuant to IFRS 3, in conjunction with IAS 36 and IAS 38, goodwill is regularly tested for impairment.

If goodwill can be allocated to a cash-generating unit, these assets must be tested for impairment annually or, if events or circumstances arise that suggest that the assets may be impaired, at shorter intervals. In this context, the carrying amount of the unit is compared with the recoverable amount of the unit, i.e. the higher of its fair value less costs to sell and its value in use.

If the carrying amount of the cash-generating unit exceeds the recoverable amount of the unit (value in use), the entity must recognise an impairment loss in the amount of the difference. The recoverable amount is determined on the basis of the present value of the future cash flows expected to arise from the continuing use of the asset until its disposal. The projections of future cash flows for the determination of the recoverable amount are based on the current planning of the

EnviTec Group, with a planning period of 13 years taken as the basis, which results from the remaining term of the cash-generating unit.

As of 31 December 2012, the carrying amount of the cash-generating unit Anklam was EUR 7,730k (previous year: EUR 6,963k). As of 31 December 2012, the carrying amount of the cash-generating unit Bützow was EUR 2,069k.

The recoverable amount of the cash-generating units was determined on the basis of the value in use. The interest rate used to discount the estimated cash flows is 7.95% (previous year: 7.65%) and is equivalent to the weighted average cost of capital (WACC) of the cash-generating units. The interest rate is based on assumptions and estimates regarding specific cost of capital. Risk adjustment is performed by comparison with peer companies operating in the same sector. No growth rate was taken into account in the calculation.

The sensitivity analysis is based on the assumption that the future cash flows will decline by 15% and the WACC will increase by 15%, as such changes are assumed to be reasonably possible. Based on these assumptions, the impairment test has revealed no need for recognition of an impairment loss.

The estimates performed are deemed to be appropriate with regard to the expected useful lives of certain assets, the assumptions regarding macroeconomic conditions and trends in the sectors in which the EnviTec Group operates and the estimate of the present value of future cash flows. Modified assumptions or changed conditions may nevertheless require corrections, which may lead to write-downs for impairment.

Of the goodwill recognised, an amount of EUR 2,229k (previous year : EUR 2,229k) relates to the five biogas plants in Anklam, while an amount of EUR 2,129k relates to the newly acquired biogas plants in Bützow. No other intangible assets with indefinite useful lives exist.

## 4. Uncertainty of estimates

Consolidated financial statements are prepared on the basis of certain assumptions and estimates which have an effect on the amount and presentation of the reported assets, liabilities, income and expenses. Assumptions and estimates primarily relate to the definition of the useful lives of fixed assets, the measurement of construction contracts, the collectibility of receivables and the provisions for guarantees. Our estimates are based on past experience and other assumptions that are regarded as realistic under the given circumstances. The actual values may differ from these estimates. Estimates and assumptions are reviewed on an ongoing basis.

Accounting and valuation principles are regarded as being important to the extent that they have a material impact on the presentation of the net worth, financial and earnings position and the cash flows of the Group and require a difficult, subjective and complex assessment of facts and circumstances, which are often uncertain by nature and may change in subsequent reporting periods and whose consequences are therefore difficult to assess. The most important accounting and valuation principles are described in point 3.4 of the Notes. Not all important accounting rules require a difficult, subjective or complex assessment of facts and circumstances. The following accounting and valuation principles may nevertheless be regarded as being important:

### **Intangible assets and property, plant and equipment**

Intangible assets with certain useful lives and property, plant and equipment are amortised/depreciated over their expected useful lives. The expected useful life is based on estimates in the period in which the intangible assets or property, plant and equipment generate cash flows.

Intangible assets with certain useful lives and property, plant and equipment must be tested for impairment if certain events or changed circumstances indicate that the carrying amount of the asset may be impaired.

The management considers the estimates of the expected useful lives of certain assets and the assumptions regarding the macroeconomic environment

and development of the sector in which the company operates to be appropriate. Nevertheless, corrections may be required as a result of changes in assumptions or circumstances. These may lead to impairment losses or reversals of impairment losses if the developments anticipated by the company change.

In order to determine whether goodwill is impaired, it is necessary to determine the value in use of the cash-generating unit to which the goodwill is allocated. The calculation of the value in use requires an estimate of future cash flows from the cash-generating unit as well as a suitable discount rate for the calculation of the present value.

#### **Sales revenues**

The Group's sales revenues are also the result of revenues under construction contracts as defined in IAS 11 (Biogas Plants). To measure the sales revenues of the contracts in progress (projects) as at the balance sheet date, it is necessary to determine the total profit and the stage of completion. To determine these figures, the individual project calculations and the documents of the project management department are used. These documents necessarily include estimates, as the total profit and the stage of completion of projects in progress depend on the development of the projects after the balance sheet date.

At the time of the preparation of the consolidated financial statements, the assumptions and estimates used were not subject to any material risks, which means that it is safe to assume, at the present time, that the carrying amounts of the assets and liabilities recognised in the consolidated balance sheets will not have to be adjusted in the next fiscal year.

## **Notes to the consolidated balance sheet**

### **5. Intangible assets and property, plant and equipment**

The changes in property, plant and equipment and intangible assets in the fiscal year 2012 are shown in the fixed-asset movement schedule. Land and buildings primarily include office buildings on the company's own land in Saerbeck and Lohne as well as land and buildings related to the biogas plants. The additions in 2012 to land and buildings essentially relate to the construction of various buildings in connection with the erection of biogas plants. Plant and machinery mainly comprise the own biogas plants operated by the company. Fixtures and fittings primarily include equipment for the construction of biogas plants and motor vehicles as well as equipment for the provision of services.

Property, plant and equipment in an amount of EUR 53,700k (previous year: EUR 47,379k) are subject to restraints on disposal in the form of land charges and property assignments. The disposals of property, plant and equipment resulted from the sale of assets.

In the past fiscal year, no intangible assets were written down for impairment (previous year: EUR 443k). Last year's write-down related to a license for the construction of gas upgrading facilities whose value was impaired.

Property, plant and equipment were written down by EUR 407k; the write-down related to plants under construction.

## 6. Investments in companies valued at equity

The tables below summarise the aggregated financial information (income statements and balance sheets) of the companies consolidated at equity in the consolidated financial statements of EnviTec.

The list of shareholdings to be prepared pursuant to section 313 para. 2 no. 2,3 of the German Commercial Code (HGB) contains additional information on investments in companies valued at equity.

### Financial information of the companies valued at equity as at 31 December 2012

Income figures of the investments accounted for using the equity method pursuant to IAS 28	2012 in EUR	2011 in EUR
Sales revenues	31,126,738	16,232,254
Gross profit	18,727,395	10,383,882
Net income for the year	436,001	-631,584
<b>Result from companies accounted for at equity</b>	<b>156,952</b>	100,385
Combined financial information of the investments accounting for using the equity method pursuant to IAS 28	2012 in EUR	2011 in EUR
Non-current assets	73,737,512	65,974,283
Current assets	24,558,563	21,396,538
Non-current liabilities	49,993,748	36,317,562
Current liabilities	34,131,752	37,389,268
Equity capital	14,170,575	13,663,991
<b>Carrying amount of investments valued at equity</b>	<b>7,476,193</b>	6,319,799
Income figures of the investments accounted for using the equity method pursuant to IAS 31	2012 in EUR	2011 in EUR
Sales revenues	155,182	2,365,361
Gross profit	7,511	213,003
Net income for the year	-488,306	-375,190
<b>Result from companies accounted for at equity</b>	<b>-4,390</b>	-199,832
Combined financial information of the investments accounting for using the equity method pursuant to IAS 31	2012 in EUR	2011 in EUR
Non-current assets	2,107,588	2,121,189
Current assets	3,293,512	3,285,878
Non-current liabilities	31,980	4,259
Current liabilities	4,346,595	3,676,027
Equity capital	1,022,524	1,726,781
<b>Carrying amount of investments valued at equity</b>	<b>648,330</b>	652,721

## 7. Investments in affiliated companies

The list of shareholdings to be prepared pursuant to section 313 para. 2 no. 1 of the German Commercial Code (HGB) contains additional information on investments in affiliated companies.

### List of shareholdings

List of consolidated companies and other equity investments as at 31 December 2012

I. Subsidiaries (fully consolidated)	Group share in %		Equity capital in EUR		Result in EUR	
	2012	2011	2012	2011	2012	2011
EnviTec Service GmbH & Co. KG, Lohne	100	100	4,926,736	3,992,990	1,168,217	890,448
EnviTec Service Verwaltung GmbH, Lohne	100	100	-89,029	13,338	-102,368	-5,734
Zweite EnviTec Beteiligungs GmbH & Co. KG, Lohne	100	100	10,258,812	8,900,626	1,358,186	167,706
Zweite EnviTec Verwaltungs GmbH, Lohne	100	100	35,290	32,714	2,576	3,133
ET Agro Trade GmbH, Lohne	100	100	38,218	109,769	98,449	71,648
EnviTec Biogas Nederland B.V., Enter/Niederlande	100	100	-418,554	-354,675	-63,879	-236,313
EnviTec Baltic SIA, Riga/Lettland	100	100	-33,766	-718,024	535,812	-181,240
EnviTec Iberica S.L., Bilbao/Spanien	100	100	-592,792	-592,792	0	-147,547
EnviTec Italia GmbH, Lohne	100	100	-839,591	-839,591	6,168	6,168
EnviTec Biogas Italia s.r.l., Sommacampagna/Italien	100	100	2,281,774	693,528	1,588,247	535,515
EnviTec Energy GmbH & Co. KG, Lohne	100	100	436,868	862,943	-426,074	-226,640
EnviTec Energy Verwaltungs GmbH, Lohne	100	100	28,841	27,280	1,561	663
EWS Biogas Projektentwicklungs- GmbH & Co. KG, Lohne	100	100	8,367	70,468	-2,101	1,892
EWS Biogas Projektentwicklung Verwaltungs GmbH, Lohne	100	100	32,614	33,204	1,108	1,698
Biogas Anklam Verwaltungs GmbH, Lohne	100	100	1,030,549	821,323	209,226	51,195
Erste Biogas Anklam Betriebs GmbH & Co. KG, Anklam	93.85	93.85	755,959	520,006	235,953	161,395
Zweite Biogas Anklam Betriebs GmbH & Co. KG, Anklam	100	100	840,008	585,094	254,914	192,792
Dritte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	100	100	798,371	550,132	248,239	209,126
Vierte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	100	100	744,476	561,875	182,601	190,689
Fünfte Biogas Anklam Betriebs GmbH & Co. KG, Anklam	100	100	956,548	756,382	200,166	121,020
Sechste Biogas Anklam Betriebs GmbH & Co. KG, Anklam	100	100	56,312	96,204	-39,892	-1,619
Biogas Topfstedt GmbH & Co. KG, Lohne	100	100	5,791	38,038	-32,247	-2,496
Pieve D'Olmi Biogas Soc. Agricola a.r.l., Bozen/Italien	100	100	-330,005	10,516	-340,518	-169,711
Stagno Lombardo Biogas Soc. Agricola a.r.l., Bozen/Italien	100	100	-174,900	12,496	-187,397	-77,639
EnviTec Beteiligungs GmbH & Co. KG, Lohne	94.92	94.92	2,354,263	1,438,825	915,438	242,882
EnviTec Verwaltungs GmbH, Lohne	95.12	95.12	37,615	35,977	1,638	1,657

Biogas Falkenberg GmbH & Co. KG, Falkenberg	100	91.5	427,551	460,083	-32,532	-64,845
Biogas Falkenberg Verwaltungs GmbH, Falkenberg	100	91.5	29,413	27,413	2,001	1,711
Biogas Groß Warnow GmbH & Co. KG, Karstädt	91.5	91.5	264,837	100,303	-135,467	-60,122
Biogas Groß Warnow Verwaltungs GmbH, Karstädt	91.5	91.5	29,455	27,959	1,496	1,602
EnviTec Biogas Betriebs GmbH & Co. KG, Lohne	91.5	91.5	11,755,492	4,796,719	155,494	-539,225
Biogas Straußfurt GmbH & Co. KG, Lohne	100	91.5	109,968	106,891	3,077	4,989
Biogas Herzberg GmbH & Co. KG, Lohne	91.5	91.5	31,086	41,869	-10,783	-384,639
Biogas Kalefeld GmbH & Co. KG, Kalefeld	91.5	91.5	74,202	97,258	-23,056	-3,954
Biogas Lüchow GmbH & Co. KG, Lohne	91.5	91.5	716,723	564,198	152,525	-77,381
Biogas Quakenbrück GmbH & Co. KG, Lohne	91.5	91.5	-657,831	-4,143	-653,689	-206,926
EnviTec Projektentwicklung GmbH , Lohne	87.5	87.5	451,526	1,267,823	-816,298	-198,777
Biogas Friedland GmbH & Co. KG, Lohne	87.5	87.5	1,356,833	724,912	631,921	232,727
Biogas Greifswald GmbH & Co. KG, Lohne	100	87.5	21,687	28,207	-6,520	-33,972
Biogas Böddenstedt GmbH & Co. KG, Salzwedel	100	100	512,847	277,646	40,301	-40,450
Biogas Böddenstedt Verwaltung GmbH, Salzwedel	100	100	28,122	26,587	1,535	1,006
Biogas Stegelitz GmbH & Co. KG, Lohne	100	87.5	115,776	111,970	3,806	3,999
Biogas Friedland Verwaltungs GmbH, Lohne	87.4	87.4	96,644	76,422	20,222	20,936
EnviTec Biogas d.o.o., Zagreb/Kroatien	85	85	0	-41,675	0	-39,607
Biogas Varadzin d.o.o., Zagreb/Kroatien	0	85	0	0	0	0
Biogas Schönthal GmbH & Co. KG, Willebadessen	79	79	189,450	131,723	57,727	90,796
Biogas Schönthal Verwaltungs GmbH, Willebadessen	79	79	33,639	31,925	1,714	1,663
Biogas Angern GmbH & Co. KG, Lohne	87.6	87.6	591,810	418,579	373,231	210,175
Biogas Angern Verwaltungs GmbH, Lohne	87.6	87.6	35,442	33,688	1,754	1,663
Baura Biogas Soc. Agricola a.r.l., Bozen/Italien	75	75	-195,293	75,967	-271,262	-54,630
Fabrico Biogas Soc. Agricola a.r.l., Bozen/Italien	75	75	73,314	74,797	-40,008	-38,017
Rolo Biogas Soc. Agricola a.r.l., Bozen/Italien	80	80	52,502	79,296	-39,534	-6,453
Malombra Biogas Soc. Agricola a.r.l., Bozen/Italien	75	75	72,841	67,643	-40,259	-8,396
Latina Biogas Soc. Agricola a.r.l., Bozen/Italien	100	100	-420	-420	0	-4,050
Formignana Biogas Soc. Agricola a.r.l., Bozen/Italien	100	100	-257,060	12,002	-269,064	-128,597
Brazzolo Biogas Soc. Agricola a.r.l., Bozen/Italien	100	100	4,999	9,400	-285,782	-100,649
Biogas Operating Holding s.r.l., Sommacampagna/Italien	85	85	-321,829	53,592	-375,423	-25,961
Pressanna Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-27,453	11,468	-38,919	-6,542
Urbana Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-81,117	13,282	-94,401	-23,000
Schio Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-215,148	6,492	-225,639	-6,508
Cona Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-19,357	-32,203	-32,153	-42,203
Foresti Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-24,334	-30,329	-34,503	-47,280
Caldogno Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-307,954	12,351	-320,307	-7,648
Merlara Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-253,804	14,110	-267,914	-18,327
Massa Fiscaglia Biogas Soc. a.r.l., Sommacampagna/Italien	100	100	-4,339	9,049	-14,388	-7,435

A3 Water Solutions GmbH, Gelsenkirchen	70	70	986,699	1,332,662	-345,963	100,238
MMF MaxFlow Membran Filtration GmbH, Gelsenkirchen	70	70	-140,304	-43,473	-67,782	-13,911
Biogas Wanzleben GmbH & Co. KG, Lohne	70	70	324,550	357,238	117,312	83,119
Biogas Wanzleben Verwaltungs GmbH, Wanzleben	70	70	33,165	31,539	1,626	1,644
Biogas Heilemann GmbH & Co. KG, Rotenburg/Wümme	70	70	407,809	94,878	312,931	182,342
Biogas Heilemann Verwaltungs GmbH, Rotenburg/Wümme	70	70	37,316	34,275	3,042	2,867
Biogas Heilemann-Holsten GmbH & Co. KG, Rotenburg/Wümme	100	100	129,235	290,441	38,793	-101,873
Second Biogas Operating Holding s.r.l., Sommacampagna/Italien	70	66	-929,239	76,560	-1,012,766	-218,839
Envitec France sarl, Tregueux/Frankreich	65	65	75,327	54,457	54,251	15,104
Biogas Thomasburg GmbH & Co. KG, Lohne	65.6	65.6	-199,702	-275,796	76,094	-83,468
Biogas Thomasburg Verwaltungs GmbH, Lohne	65.6	65.6	34,034	32,085	1,949	1,785
Biogas Nieheim GmbH & Co. KG, Lohne	64.8	64.8	792,719	658,936	133,783	76,739
Biogas Nieheim Verwaltungs GmbH, Lohne	64.8	64.8	33,543	31,754	1,789	1,610
RePro Beber GmbH & Co. KG, Lohne	64.6	64.6	655,821	340,534	315,286	215,494
RePro Beber Verwaltungs GmbH, Lohne	64.6	64.6	34,762	33,007	1,755	1,604
Biogas Hirl GmbH & Co. KG, Bresegard	64	64	371,873	244,178	127,695	48,755
Biogas Hirl Verwaltungs GmbH, Bresegard	64	64	32,400	30,753	1,647	2,160
Envitec Biogas UK Ltd., Rugeley/Großbritannien	60	60	240,492	-136,768	379,414	211,403
Biogas Nordholz GmbH, Minden	60	60	368,101	158,629	209,473	26,179
EnviTec Biogas SK s.r.o., Levice/Slowakei	100	100	-104,926	-104,926	-109,668	-109,668
EnviTec Biogas Central Europe s.r.o., Velké Mezirici/Tschechien	55	55	128,976	-563,338	562,396	1,637,807
ETBKN GmbH & Co. KG, Lohne	75	75	975,684	1,986,144	-10,461	4,941
ETBKN Verwaltungs GmbH, Lohne	75	75	27,148	25,437	1,711	760
Biogas Gramzow GmbH & Co. KG, Lohne	100	100	97,163	97,531	-369	-1,273
Biogas Wesenberg GmbH & Co. KG, Lohne	100	100	356,397	481,605	-125,208	-10,995
Biogas Ringleben GmbH & Co. KG, Lohne	100	100	35,140	81,404	-46,264	13,508
Biogas Osterburg GmbH & Co. KG, Lohne	100	100	688,283	511,040	177,243	-37,852
Biogas Klein Mühlingen GmbH & Co. KG, Vogelsang	100	100	211,633	351,863	-140,231	-45,314
Biogas Schönwalde GmbH & Co. KG, Schönwalde	100	100	490,194	468,975	21,219	-83,349
Biogas Schönwalde Verwaltung GmbH, Schönwalde	100	100	29,365	27,343	2,022	1,161
Biogas Sachsendorf GmbH & Co. KG, Schwarz Sachsendorf	100	100	661,362	607,990	-466,628	-426,363
eeMaxx Anlagen- und Betriebs GmbH & Co. KG, Garrel	73	61	6,716,809	6,757,768	-40,958	64,822
eeMaxx Verwaltungs GmbH, Garrel	73	61	24,880	23,809	871	1,298
Biogas Schenkenhorst GmbH & Co. KG, Garrel	85	85	-13,633	1,833	-15,466	-159,795
Biogas Schenkenhorst Verwaltungs- GmbH, Garrel	100	100	29,737	28,325	1,412	1,684
Biogas Brehna GmbH & Co. KG, Garrel	90	90	421,730	392,106	29,624	-131,132
Biogas Brehna Verwaltungs- GmbH, Garrel	100	100	28,035	26,435	1,600	1,648

Biogas Kuck Verwaltungs- GmbH, Garrel	100	100	28,879	27,923	956	1,451
Biogas Düben GmbH & Co. KG, Garrel	90	90	-10,408	11,021	-21,429	-11,759
Biogas Düben Verwaltungs- GmbH, Garrel	100	100	27,779	26,083	1,697	1,790
Biogas Dambeck GmbH & Co. KG, Garrel	100	100	606,874	569,391	37,483	57,492
Biogas Dambeck Verwaltungs- GmbH, Garrel	100	100	30,390	28,874	1,515	1,941
Biogas Kruse Verwaltungs- GmbH, Garrel	100	100	25,446	25,041	404	1,059
Biogas Schönhausen GmbH & Co. KG, Garrel	100	100	-11,190	6,024	-17,214	-16,470
Biogas Schönhausen Verwaltungs- GmbH, Garrel	100	100	28,471	26,505	1,966	2,233
Biogas Kalbe GmbH & Co. KG, Garrel	100	100	576,400	529,210	47,190	56,229
Biogas Kalbe Verwaltungs- GmbH, Garrel	100	100	30,049	28,680	1,370	1,723
Biogas Glauzig GmbH & Co. KG, Garrel	100	100	-3,442	8,341	-11,783	-15,356
Biogas Glauzig Verwaltungs- GmbH, Garrel	100	100	27,076	25,380	1,696	1,355
Biogas Pinnow GmbH & Co. KG, Garrel	100	100	-1,366	3,557	-4,923	-20,142
Biogas Pinnow Verwaltungs- GmbH, Garrel	100	100	26,721	25,127	1,594	1,101
Biogas Dingelstedt GmbH & Co. KG, Garrel	100	100	-24,799	-4,774	-20,025	-26,379
Biogas Dingelstedt Verwaltungs- GmbH, Garrel	100	100	27,403	25,538	1,866	1,212
Biogas Oderaua GmbH & Co. KG, Garrel	100	100	13,715	18,892	-5,176	-6,108
Biogas Oderaua Verwaltungs- GmbH, Garrel	100	100	25,775	24,383	1,422	-647
Biogas Trüstedt GmbH & Co. KG, Garrel	100	100	-5,072	18,337	-23,409	6,663
Biogas Trüstedt Verwaltungs- GmbH, Garrel	100	100	25,748	24,079	1,670	-921
Biogas Neutrebbin GmbH & Co. KG, Garrel	100	100	856,336	1,268,982	-412,646	-76,083
Biogas Neutrebbin Verwaltungs- GmbH, Garrel	100	100	27,210	25,457	1,753	457
Biogas Mühlengeez GmbH & Co. KG, Garrel	100	100	13,073	18,105	-5,032	-6,895
Biogas Mühlengeez Verwaltungs- GmbH, Garrel	100	100	26,618	24,909	1,709	-91
Biogas Weyhausen GmbH & Co. KG, Garrel	100	100	13,418	18,730	-5,312	-6,270
Biogas Weyhausen Verwaltungs- GmbH, Garrel	100	100	25,592	23,828	1,764	-1,172
EnviTec Biogas USA, Inc., Rochester/USA	100	100	-47,799	-61,789	14,554	-62,044
EnviTec Stromkontor GmbH & Co. KG	100	100	101,666	48,540	53,127	-1,460
EnviTec Biogas Service Italy s.r.l., Sommacampagna/Italien	100	100	457,394	58,122	389,272	-41,878
EnviTec Biogas Service UK Ltd., Rugeley/Großbritannien	60	60	62,377	-21,679	22,967	-31,679
Zweite Biogas Nesse Betriebs GmbH & Co. KG, Lohne	100	0	67,020	0	-63,539	0
Dritte EnviTec Verwaltungs GmbH, Lohne	100	0	117,872	0	92,872	0
Erste Biogas Bützow GmbH & Co. KG, Bützow	100	0	-254,888	0	2,330	0
Dritte Biogas Bützow GmbH & Co. KG, Bützow	54.4	0	-442,893	0	42,632	0
Vierte Biogas Bützow GmbH & Co. KG, Bützow	60.5	0	-414,169	0	114,548	0
Fünfte Biogas Bützow GmbH & Co. KG, Bützow	100	0	-7,406	0	-87,390	0
EnviTec Biogas Service s.r.o., Velké Mezirici/Tschechien	85	0	209,725	0	171,986	0
Biogas Lampertheim GmbH & Co. KG, Lohne	70	0	27,891	0	-2,109	0
Biogas Lampertheim Verwaltungs GmbH, Lohne	70	0	24,374	0	-626	0
Biogas Elsteraue GmbH & Co. KG, Lohne	100	0	93,979	0	-1,645	0

II. Joint ventures (valued at equity)	Group share in %	Equity capital in EUR	Result in EUR
EnviTec Biogas kft., Ungarn*	51.14	51,14 -233,460	-417 -233,043 33,117
EnviTec Biogas (India) Private Limited, Indien	50	50 1,015,513	1,264,891 -249,378 -437,781
ETFT EnviTec Filtration Technik GmbH, Lohne	50	50 -65,423	-59,538 -5,885 -7,145
Envitec van de Velde Service B.V.B.A., Belgien	50	50 59,316	59,316 0 17,559
III. Associated companies (valued at equity)	Group share in %	Equity capital in EUR	Result in EUR
EnviTec Assekuranzmakler GmbH, Lohne	50	50 67,196	65,122 2,074 6,785
Biogas Neu Sterley GmbH & Co. KG, Lohne	50	50 602,683	656,924 305,758 170,428
Biogas Neu Sterley Verwaltungs GmbH, Lohne	50	50 33,481	31,703 1,778 1,774
Biogas Spekendorf GmbH & Co. KG, Lohne	50	50 262,120	324,639 57,480 107,554
Biogas Spekendorf Verwaltung GmbH, Lohne	50	50 35,856	33,941 1,915 1,800
Biogas Golzow GmbH & Co. KG, Golzow	48	48 942,237	1,212,761 -270,525 -116,507
Biogas Golzow Verwaltungs GmbH, Golzow	48	48 30,667	28,566 2,101 3,121
Biogas Gut Rigterink GmbH & Co. KG, Bad Bentheim	46	46 81,037	268,391 -187,354 -116,859
Biogas Gut Rigterink Verwaltungs GmbH, Bad Bentheim	46	46 31,056	29,207 1,849 1,686
Biogas Putzar GmbH & Co. KG, Putzar	50	50 563,650	447,611 116,039 -90,849
Biogas Putzar Verwaltungs GmbH, Putzar	50	50 30,861	28,820 2,042 1,665
Knipgas GmbH & Co. KG, Kleve	50	50 654,212	489,990 164,222 16,734
Knipgas Verwaltungs GmbH, Kleve	50	50 29,203	27,302 1,901 1,539
Biogas Löschenrod GmbH & Co. KG, Lohne	44	44 57,319	42,349 14,970 -15,193
Biogas Löschenrod Verwaltungs GmbH, Lohne	44	44 33,723	31,984 1,739 1,494
Biogas Dishley GmbH & Co. KG, Lohne	50	50 788,472	539,758 248,714 112,806
Biogas Dishley Verwaltungs GmbH, Lohne	50	50 28,598	26,575 2,023 1,514
Biogas Exter GmbH & Co. KG, Vlotho-Exter	49	49 434,552	632,647 -198,095 -35,576
Biogas Exter Verwaltungs GmbH, Vlotho-Exter	49	49 29,639	27,922 1,717 801
Biowatt Sarl, Frankreich	50	50 870,074	853,834 14,742 160,038
Biogas Reinsfeld GmbH & Co. KG, Lohne	50	50 307,220	672,487 -365,267 -98,775
Biogas Reinsfeld Verwaltung GmbH, Lohne	50	50 29,408	27,980 1,427 1,599
Biogas Ihorst GmbH & Co. KG, Holdorf	27.5	27.5 379,011	313,302 65,709 29,394
Biogas Ihorst Verwaltungs GmbH, Holdorf	27.5	27.5 29,646	27,706 1,939 1,866
Rentech Bioenergas S.A., Athen/Griechenland	21	21 0	0 0 0
Helianthus srl, San Dona di Piave/Italien	50	50 0	0 0 0
Biogas Potthast GmbH & Co. KG, Beverungen	50	50 591,723	484,761 106,962 -77,289
Biogas Potthast Verwaltungs GmbH, Beverungen	50	50 29,725	27,680 2,045 1,744
Biogas Kleve GmbH & Co. KG, Kleve	50	50 58,115	14,494 -51,379 -76,275
Biogas Kleve Verwaltungs GmbH, Kleve	50	50 28,343	26,522 1,822 1,474
Biogas Medebach GmbH & Co. KG, Medebach	50	50 74,294	83,662 -9,368 -12,749

Biogas Medebach Verwaltungs GmbH, Medebach	50	50	28,805	26,831	1,974	1,723
Biogas Altentreptow GmbH & Co. KG, Altentreptow	50	50	1,221,427	295,996	215,431	-116,561
Biogas Altentreptow Verwaltungs GmbH, Altentreptow	50	50	28,843	26,766	2,077	1,582
Biogas Roga GmbH & Co. KG, Datzetal	50	50	486,183	512,896	-26,713	-52,980
Biogas Roga Verwaltungs GmbH, Datzetal	50	50	27,338	25,901	1,437	1,022
Biogas Elm GmbH & Co. KG, Bremervörde	49	49	322,913	290,536	32,378	-82,933
Biogas Elm Verwaltungs GmbH, Bremervörde	49	49	31,363	29,267	2,096	2,008
Biogas Brakel GmbH & Co. KG, Brakel	50	50	661,842	500,866	160,976	-58,726
Biogas Brakel Verwaltungs GmbH, Brakel	50	50	28,880	26,869	2,011	1,834
Biogas Penzlin GmbH & Co. KG, Lohne	50	50	298,892	332,923	-34,031	-86,832
Biogas Penzlin Verwaltungs GmbH, Lohne	50	50	26,933	25,718	1,215	1,406
Biogas Dirkes GmbH & Co. KG, Südmerzen	50	50	764,512	650,957	113,556	66,133
Biogas Dirkes Verwaltungs GmbH, Südmerzen	50	50	28,856	26,841	2,015	1,498
Biogas Grieben GmbH & Co. KG, Grieben	49	49	289,763	240,118	49,645	-18,524
Biogas Grieben Verwaltungs GmbH, Grieben	49	49	28,009	26,331	1,678	1,586
Biogas Rönnau GmbH & Co. KG, Ahlhorn	50	50	108,426	345,866	-237,440	-62,564
Biogas Rönnau Verwaltungs GmbH, Ahlhorn	50	50	28,958	26,965	1,992	1,523
Biogas Kruse GmbH & Co. KG, Garrel	50	50	777,738	794,697	-16,959	-249,981
Biogas Meetzen GmbH & Co. KG, Holdorf	49	49	3,161	7,495	-4,334	-2,505
Biogas Meetzen Verwaltungs GmbH, Holdorf	49	49	26,607	25,007	1,601	7
Biogas Talge Verwaltungs- GmbH, Garrel	49	49	27,633	26,040	1,593	1,798
Biogas Talge GmbH & Co. KG, Garrel	49	49	560,505	517,426	43,078	-52,034
Biogas Barby GmbH & Co. KG, Lohne	50	50	92,889	95,555	-2,666	1,962
Biogas Barby Verwaltungs GmbH, Lohne	50	50	27,756	25,892	1,864	717
Biogas Kuck GmbH & Co. KG, Garrel	49	49	224,184	336,360	-112,176	122,381
Saergas GmbH & Co. KG, Saerbeck	33.33	33.33	875,670	820,437	55,233	-69,949
Zweite Biogas Bützow GmbH & Co. KG, Bützow	46.5	0	-410,418	0	103,456	0
Biogas Gallin I GmbH & Co. KG, Gallin-Kuppentin, Gallin	50	0	-416,873	0	-152,830	0
Biogas Gallin I Verwaltungs GmbH, Gallin-Kuppentin, Gallin	50	0	24,997	0	-3	0
Biogas Gallin II GmbH & Co. KG, Gallin-Kuppentin, Gallin	50	0	377,521	0	-109,078	0
Biogas Gallin II Verwaltungs GmbH, Gallin-Kuppentin, Gallin	50	0	24,997	0	-3	0
Biogas Woltersdorf GmbH & Co. KG, Lohne	50	0	-1,764	0	-1,764	0
Biogas Woltersdorf Verwaltungs GmbH, Lohne	50	0	25,106	0	106	0

\* Due to certain clauses in the articles of incorporation of EnviTec Biogas SEE kft, the EnviTec Group cannot control the company; accordingly, EnviTec Biogas SEE kft. continues to be accounted for using the equity method.

Equity and earnings figures are based on the financial statements prepared to the German Commercial Code (HGB) or local GAAP principles.

With the exception of EnviTec Biogas (India) Private Limited, all companies prepare their financial statements as of 31 December.

## 8. Other non-current receivables

As in the previous year, other non-current receivables exclusively relate to fixed-interest loans with a residual term of more than one year granted to external third parties.

## 9. Construction contracts

The table below shows the construction contracts as at 31 December 2012:

Construction contracts	2012 in EUR	2011 in EUR
<b>Gross amount due from customers for biogas plant contract work in progress</b>		
Contract revenue recognised in the fiscal year*	109,576,433	184,941,946
Accumulated costs incurred	119,160,832	172,687,818
Accumulated profits recognised	15,486,071	21,974,849
Accumulated advance payments received	-86,259,086	-136,494,326
<b>Gross amount due from customers for contract work</b>	<b>48,387,817</b>	<b>58,168,341</b>
<b>Gross amount due to customers for biogas plant contract work in progress</b>		
Contract revenue recognised in the fiscal year*	4,291,230	8,247,552
Accumulated costs incurred	4,396,549	5,889,360
Accumulated profits recognised	749,234	1,235,816
Accumulated advance payments received	-6,793,282	-10,770,305
<b>Gross amount due to customers for contract work</b>	<b>1,647,498</b>	<b>3,645,129</b>

\* The prior year figures have been adjusted as a wrong figure was shown in the previous year. This was not due to incorrect accounting and therefore had no impact on the presentation of the net worth, financial and earnings position.

## 10. Inventories

Inventories comprise the following:

Inventories	2012 in EUR	2011 in EUR
Raw materials and supplies	31,765,668	30,794,053
Advance payments	2,543,757	3,618,896
<b>34,309,425</b>	<b>34,412,949</b>	

Inventories were written down for impairment in an amount of EUR 862,073 (previous year: EUR 44,486) in the past financial year. The strong increase is mainly attributable to the poor harvest in Italy and the high write-downs on the maize stocks of the Italian plants. The carrying amount of the discounted inventories is EUR 6,474k (previous year: EUR 3,038k).

## 11. Trade receivables

All trade receivables are due within one year. The table below shows the changes in itemised allowances on receivables:

Trade receivables	2012 in EUR	2011 in EUR
Accumulated allowances as at 1 Jan.	3,064,470	97,469
Additions	595,858	3,045,912
Reversal	1,802,987	78,911
<b>Accumulated allowances as at 31 Dec.</b>	<b>1,857,341</b>	<b>3,064,470</b>

Specific bad debt reserves were established for receivables due from third parties experiencing unexpected financial difficulties. The amount of the bad debt reserves was calculated in accordance with the expected net payment defaults. The impairments are shown in the consolidated results as other operating expense. The book value of trade receivables for which allowances have been established is EUR 1,923,679.

Receivables in an amount of EUR 19,261k (previous year: EUR 6,511k) are not due yet.

The following table summarises the overdue receivables for which no bad debt reserves have been established in EUR k:

Analyse of receivables	2012 in EURk	2011 in EURk
31 < 90 days	3,999	2,870
91 > 180 days	2,067	1,418
181 < 360 days	1,646	894
> 360 days	4,636	10,284
<b>Total</b>	<b>12,348</b>	<b>15,466</b>

Overdue receivables are usually secured by way of contract performance guarantees requested from the customer or by other securities such as the assignment of receivables from electricity generation or the assignment of investments and/or other assets. Actual defaults amounted to EUR 3,219k (previous year: EUR 40k).

## 12. Other current assets

Other current assets comprise the following:

The other current assets	2012 in EUR	2011 in EUR
Loans to third parties	19,067,912	22,865,734
Receivables from associated companies	21,525,848	30,663,639
Interest claims	65,404	47,005
Prepaid expenses	1,644,088	1,543,022
Receivables from employees	88,983	101,499
Receivables from minority shareholders	0	362,302
Refund of transaction taxes	7,889,647	147,190
Supplier refund	667,500	1,675,000
Outstanding credits / charges	4,748,519	2,481,889
Currency forward transaction	4,198	67,347
Other short-term receivables	852,243	1,831,489
<b>Total</b>	<b>56,554,342</b>	<b>61,786,116</b>

Receivables from associated companies and joint ventures are mostly receivables from the sale of biogas plants and machines (EUR 2,564k; previous year: EUR 15,437k) as well as loan receivables. The loans are granted at interest rates that are comparable to average market rates and are unsecured.

The other current assets can be split up into financial (EUR 47,020,607) and non-financial (EUR 9,533,735) assets, as defined in IAS 32. The non-financial assets comprise prepaid expenses and transaction tax refund claims.

The table below shows the changes in valuation allowances for other current assets:

	2012 in EUR	2011 in EUR
Accumulated allowances as at 1 Jan.	387,500	307,785
Additions	78,928	79,715
Reversal	0	0
<b>Accumulated allowances as at 31 Dec.</b>	<b>466,428</b>	<b>387,500</b>

Valuation allowances were established for current assets towards third parties experiencing unexpected financial difficulties. The amount of the valuation allowances was calculated in accordance with the expected net payment defaults. The impairments are shown in the consolidated result.

## 13. Tax refund claims

The tax refund claims relate to income taxes and transaction taxes of the current fiscal year, which have not yet been refunded by the tax authority. They are recognised at the amount of the expected tax refund.

## 14. Equity

### 14.1. Changes in equity

The individual equity components and their changes in 2011 and 2012 are shown in the statement of changes in equity.

The company's share capital amounts to EUR 15,000k. It is divided into 15,000,000 bearer shares with a par value of EUR 1.00 per share.

As of 31 December 2012, EnviTec Biogas AG held 150,000 (previous year: 150,000) shares in EnviTec Biogas AG with a par value of EUR 1.00. The acquisition costs of EUR 2,082k were deducted from the carrying amount of equity capital. Taking account of the acquisition of own shares, a total of 14,850,000 shares were outstanding as of 31 December 2012. For more information, please refer to the statement of changes in equity.

The Annual General Meeting on 26 June 2007 authorised a conditional increase in the share capital by an amount of up to EUR 4,500,000.00 (authorised capital 2007/I). The purpose of the conditional capital increase is to enable the issue of shares to the holders and creditors of bonds with warrants and/or convertible bonds that will be issued by the company or a subordinated Group company once or several times based on the authorisation granted by the Annual General Meeting on 26 June 2007. The shares will be issued at the warrant exercise or conversion price to be determined in accordance with the above authorisation. The conditional capital increase must be effected only to the extent that option and/or conversion rights arising from bonds issued against cash are exercised and/or conversion obligations from such bonds are met and no cash compensation is granted or own shares are used to meet such obligations. The Executive Board is authorised to define the further details of the conditional capital increase.

The capital reserve primarily relates to the premium of the IPO on 12 July 2007. As a result, the capital reserve after deduction of IPO expenses (EUR 7,092k) pursuant to IAS 32.37 increased by EUR 133,479k. For further details of the capital reserve, please refer to the statement of changes in equity.

Based on a resolution adopted by the Annual General

Meeting on 25 June 2009, EUR 10,000,000 of the profit carried forward was allocated to the newly established revenue reserve.

The currency translation reserve in an amount of EUR -79,033 (previous year: EUR -74,447) essentially comprises the difference resulting from the translation of the financial statements of the fully consolidated companies, whose reporting currency is not the euro. These are the subsidiaries in Great Britain, the Czech Republic, Croatia, Latvia and the USA. It increased by EUR 4,586 due to the initial consolidation of three foreign subsidiaries.

The other reserves comprise the evaluation of the Cahshflow Hedges that are not effecting the net income in an amount of EUR -148k (previous year: EUR 0k)

The other income includes deferred taxes due to the CashFlow Hedge in an amount of kEUR 58.

The balancing item for non-controlling interests in an amount of EUR -849k (previous year: EUR -445k) comprises minority interests in fully consolidated Group companies. They were accounted for in accordance with the anticipated acquisition method.

### 14.2. Capital management

EnviTec Biogas AG manages its capital with the aim of maximising the return on capital. This also includes optimising the debt-to-equity ratio. The focus is on long-term value creation in the interest of investors, employees and customers.

As is standard practice in the biogas sector, the company monitors its capital on the basis of leverage, which is calculated as the relation between debt capital and total capital. The total capital relevant for this purpose comprises shareholders' equity and financial liabilities. Shareholders' equity includes subscribed capital, capital reserves, revenue reserves, profit carried forward, minority interests and the consolidated net income for the year. Financial liabilities comprise all financial obligations including current financial liabilities and trade payables.

As at 31 December 2012, the equity ratio stood at 52.3% (previous year: 59.5%).

In September 2012 a bonded loan has been concluded

for which the company has to meet certain covenants regarding equity ration and debt-to-equity ratio. All financial covenant were met as per 31.12.2012. Furthermore a margin step up of 0,5% p.a. was stipulated for certain scopes of the debt-to-equity ratio.

Other external minimum capital requirements apply to a credit line in an amount of EUR 25,000k, for which a minimum equity ratio of 25% was agreed.

For more information, please refer to the disclosures on risk management in the management report.

## 15. Provisions

The table below shows the changes in the individual provision categories in the fiscal year 2012:

	As at 01/01/12 in EUR	Use 2012 in EUR	Reversal 2012 in EUR	Allocation 2012 in EUR	As at 12/31/12 in EUR
<b>Provisions for unbilled work</b>	<b>7,408,279</b>	<b>7,408,279</b>	<b>0</b>	<b>11,441,602</b>	<b>11,441,602</b>
Thereof current	7,408,279	7,408,279	0	11,441,602	11,441,602
<b>Warranty and goodwill provisions</b>	<b>1,053,081</b>	<b>1,035,185</b>	<b>17,896</b>	<b>1,539,132</b>	<b>1,539,132</b>
Thereof current	459,081	441,185	17,896	699,132	699,132
<b>Other provisions</b>	<b>1,656,374</b>	<b>1,507,640</b>	<b>148,734</b>	<b>190,576</b>	<b>190,576</b>
Thereof current	1,656,374	1,507,640	148,734	190,576	190,576
	<b>10,117,734</b>	<b>9,951,104</b>	<b>166,630</b>	<b>13,171,310</b>	<b>13,171,310</b>
Thereof current	9,523,734	9,357,104	166,630	12,331,310	12,331,310

The table below shows the changes in the individual provision categories in the fiscal year 2011:

	As at 01/01/11 in EUR	Use 2011 in EUR	Reversal 2011 in EUR	Allocation 2011 in EUR	As at 12/31/11 in EUR
<b>Provisions for unbilled work</b>	<b>7,358,259</b>	<b>7,358,259</b>	<b>0</b>	<b>7,408,279</b>	<b>7,408,279</b>
Thereof current	7,358,259	7,358,259	0	7,408,279	7,408,279
<b>Warranty and goodwill provisions</b>	<b>907,241</b>	<b>795,139</b>	<b>112,102</b>	<b>1,053,081</b>	<b>1,053,081</b>
Thereof current	402,241	290,139	112,102	459,081	459,081
<b>Other provisions</b>	<b>1,008,799</b>	<b>846,439</b>	<b>162,360</b>	<b>1,656,374</b>	<b>1,656,374</b>
Thereof current	1,008,799	846,439	162,360	1,656,374	1,656,374
	<b>9,274,299</b>	<b>8,999,837</b>	<b>274,462</b>	<b>10,117,734</b>	<b>10,117,734</b>
Thereof current	8,769,299	8,494,837	274,462	9,523,734	9,523,734

The expected cash flows for the provisions recognised in 2011 and 2012 are shown below:

Expected outflow of funds	12/31/12 in EUR	Expected outflow of funds	12/31/11 in EUR
2013	12,331,310	2012	9,523,734
2014	840,000	2013	594,000
	<b>13,171,310</b>		<b>10,117,734</b>

The provisions for unbilled work refer to work performed by third parties whose amount and time of completion is still uncertain.

The warranty and goodwill provisions refer to contractually agreed warranties on biogas plants built and sold. The provisions are based on management's best estimate of the future outflow of funds through the fulfilment of warranty obligations. The estimate was made on the basis of historical figures and may fluctuate because of new materials and/or other factors. A deduction in an amount of EUR 38k (previous year: EUR 28k) was made. This effect is included in the presentation of the provisions in the "Allocation" column. Discounting is performed on the basis of the discount rate published by Deutsche Bundesbank; it was 3.79% (previous year: 3.94%) for a remaining term of 2 years.

## 16. Financial liabilities

Financial liabilities are composed as shown below:

	Total in EUR	Thereof current in EUR	Total in EUR	Thereof current in EUR
	12/31/12		12/31/11	
Liabilities to banks	87,994,797	11,592,660	70,935,469	30,084,953
Liabilities to minority shareholders	6,298,525	814,610	5,569,088	158,330
Advance payments received	18,846,961	18,846,961	5,066,419	5,066,419
Other financial liabilities	804,231	705,991	713,182	189,862
Liabilities from derivative financial instruments	205,429	205,429	0	0
	<b>114,149,943</b>	<b>32,165,651</b>	<b>82,284,158</b>	<b>35,499,564</b>

Financial liabilities have the following maturities:

Due in	12/31/12 in EUR	Due in	12/31/11 in EUR
2013	32,165,651	2012	35,499,564
2014	6,109,918	2013	4,937,537
2015	16,001,741	2014	4,935,191
2016	5,686,863	2015	4,782,646
2017	20,457,449	2016	4,421,128
2018 and thereafter	33,728,321	2017 and thereafter	27,708,092
	<b>114,149,943</b>		<b>82,284,158</b>

Current financial liabilities totalled EUR 32,165,651 (previous year: EUR 35,499,564). The weighted average interest rate was 3.15% (previous year: 3.42%)

Non-current liabilities to banks primarily comprise loans for the financing of office buildings, biogas plants as

well as fixtures and fittings. Liabilities to banks are secured by land charges and property assignments.

As at 31 December 2012, the following securities for liabilities to banks existed:

Lenders	Liability as at 12/31/12	Liability as at 12/31/11	Type of security	Carrying amount of security as at 12/31/12	Carrying amount of security as at 12/31/11
Landessparkasse zu Oldenburg	181,128	239,243	Land charge of EUR 2,250,000 in the property in Saerbeck, Boschstrasse 2, as well as a land charge of EUR 2,000,000 in the property in Lohne, Industriering 10a	288,030	347,347
Landessparkasse zu Oldenburg	247,537	326,699	Land charge of EUR 2,250,000 in the property in Saerbeck, Boschstrasse 2, as well as a land charge of EUR 2,000,000 in the property in Lohne, Industriering 10a	393,634	474,320
Landessparkasse zu Oldenburg	262,684	333,567	Land charge of EUR 2,250,000 in the property in Saerbeck, Boschstrasse 2, as well as a land charge of EUR 2,000,000 in the property in Lohne, Industriering 10a	417,721	484,291
Landessparkasse zu Oldenburg	3,600,000	4,000,000	Land charge of EUR 2,250,000 in the property in Saerbeck, Boschstrasse 2, as well as a land charge of EUR 2,000,000 in the property in Lohne, Industriering 10a	5,724,731	5,807,417
Landessparkasse zu Oldenburg	295,448	340,904	Subordinated land charge of EUR 1,430,000 in the property in Rotenburg, Kesselhofskamp 2, Assignment of biogas plants including machinery and equipment, Assignment of claims of electricity producers	321,908	312,897
Landessparkasse zu Oldenburg	469,767	542,041	Subordinated land charge of EUR 1,430,000 in the property in Rotenburg, Kesselhofskamp 2, Assignment of biogas plants including machinery and equipment, Assignment of claims of electricity producers	511,838	497,510
Landessparkasse zu Oldenburg	868,632	992,724	Subordinated land charge of EUR 1,430,000 in the property in Rotenburg, Kesselhofskamp 2, Assignment of biogas plants including machinery and equipment, Assignment of claims of electricity producers	946,424	911,168

Landessparkasse zu Oldenburg	318,176	363,632	Subordinated land charge of EUR 1,430,000 in the property in Rotenburg, Kesselhofskamp 2, Assignment of biogas plants including machinery and equipment Assignment of claims of electricity producers	346,671	333,758
Landessparkasse zu Oldenburg	36,700	63,700	Subordinated land charge of EUR 1,430,000 in the property in Rotenburg, Kesselhofskamp 2, Assignment of biogas plants including machinery and equipment Assignment of claims of electricity producers	39,987	58,467
Landessparkass zu Oldenburg	413,458	568,126	First priority registered land charge of EUR 1,100,000 in the property in Angern, Loitscher Weg 5, Assignment of biogas plants including machinery and equipment, Assignment of claims of electricity producers	698,063	733,591
Bremer Landesbank	1,557,810	1,972,616	First priority land charge of EUR 1,725,000.00 in the property in Friedland, Am Schwarzen Weg, Assignment of biogas plants, Assignment of claims of energy utilities	1,929,796	1,633,627
Bremer Landesbank	2,700,000	3,000,000	First priority land charge of EUR 1,725,000.00 in the property in Friedland, Am Schwarzen Weg, Assignment of biogas plants, Assignment of claims of energy utilities	3,344,727	2,484,458
Bremer Landesbank	409,085	499,995	First priority land charge of EUR 7,500,000.00 in the site in Anklam, Konrad-Zuse-Str. 8; assignment of biogas plant, Assignment of claims of energy utilities	719,412	761,749
Bremer Landesbank	409,085	499,995	First priority land charge of EUR 7,500,000.00 in the site in Anklam, Konrad-Zuse-Str. 8; assignment of biogas plant, Assignment of claims of energy utilities	711,118	761,749
Bremer Landesbank	409,085	499,995	First priority land charge of EUR 7,500,000.00 in the site in Anklam, Konrad-Zuse-Str. 8; assignment of biogas plant, Assignment of claims of energy utilities	710,726	761,749
Bremer Landesbank	409,085	499,995	First priority land charge of EUR 7,500,000.00 in the site in Anklam, Konrad-Zuse-Str. 8; assignment of biogas plant, Assignment of claims of energy utilities	727,849	770,310
Bremer Landesbank	361,101	505,547	First priority land charge of EUR 7,500,000.00 in the site in Anklam, Konrad-Zuse-Str. 8; assignment of biogas plant, Assignment of claims of energy utilities	855,399	972,992
Oldenburgische Landesbank	1,423,085	1,577,313	First priority land charge of EUR 1,800,000.00 in the site in Wanzleben, Vor dem Schlosstor 2; assignment of claims of energy utilities as well as various claims resulting from the operation of the biogas plant	1,507,253	1,742,599
Oldenburgische Landesbank	1,431,818	1,590,909	First priority land charge of EUR 1,750,000.00 in the site Thomasburg, Hagenweg; , assignment of claims of energy utilities as well as various claims resulting from the operation of the biogas plant	1,441,477	1,656,953
Bremer Landesbank	1,431,860	1,600,316	First priority land charge of EUR 2,003,000.00 in the property in Willebadessen, Schönthal 25; assignment of biogas plant, Assignment of claims of energy utilities	1,434,623	1,601,097
Bremer Landesbank	1,545,450	1,727,270	First priority land charge of EUR 2,350,000.00 in the site in Nieheim, Steinheimer Straße 99; assignment of biogas plant, Assignment of claims of energy utilities	1,969,954	2,237,442
Bremer Landesbank	1,335,270	1,492,362	First priority land charge of EUR 2,128,000.00 in the site in Bresegard, Hauptstraße 42; assignment of biogas plant, Assignment of claims of energy utilities	1,331,740	1,549,022
Volksbank Gelsenkirchen	184,540	201,968	First priority land charge of EUR 1,111,000 in Gelsenkirchen, Magdeburger Str. 16a	931,758	952,866
Deutsche Kreditbank	1,882,028	2,062,692	First priority land charge of EUR 2,400,000.00 in the site in Minden, Stemmer Landstraße 151; assignment of biogas plant and inventory, Assignment of claims of energy utilities	1,639,073	2,067,992

Bremer Landesbank	1,481,554	1,926,086	First priority land charge of EUR 1,726,000 in the site in Beber, Zum Dachtelfeld 29; assignment of biogas plant, Assignment of claims of energy utilities	1,476,516	3,297,892
Bremer Landesbank	1,933,600	0	First priority land charge of EUR 2,030,000 in the local subdistrict of Lüchow sheet 2055 cadastral district 4 lot 69/51; assignment of biogas plant, Assignment of claims of energy utilities	2,522,264	0
Bremer Landesbank	2,040,000	0	Subordinated land charge of EUR 2,040,000 in the site in Beber, Zum Dachtelfeld 29; assignment of biogas plant, Assignment of claims of energy utilities	2,033,062	0
Oldenburgische Landesbank AG	1,711,527	1,660,909	First priority land charge of EUR 1,740,000 in the site in Kalbe, An der Bahn; assignment of biogas plant, Assignment of claims of energy utilities	2,202,875	2,323,631
Oldenburgische Landesbank AG	1,563,182	1,727,735	First priority land charge of EUR 1,810,000 in the site in Salzwedel, Im Dorf; assignment of biogas plant, Assignment of claims of energy utilities	2,085,438	2,302,948
Deutsche Kreditbank	5,409,000	5,409,000	First priority land charge of EUR 5,609,000 in the site in the local subdistrict of Neunaundorf; assignment of biogas plant, Assignment of claims of energy utilities	3,863,985	4,297,832
Oldenburgische Landesbank AG	1,638,180	1,802,000	First priority land charge of EUR 1,802,000 in the site in Sandersdorf-Brehna; assignment of biogas plant, Assignment of claims of energy utilities	2,097,339	2,200,679
Landesparkasse zu Oldenburg	1,828,150	2,013,330	First priority land charge of EUR 2,160,000 in the sheet 574 of the Bötersen Land Register, Assignment of biogas plants including machinery and equipment Assignment of claims of electricity producers	1,820,946	2,161,073
Bremer Landesbank	2,000,000	2,000,000	First priority land charge of EUR 6,269,000 in the local subdistrict of Groß Rosenberg-Sachsendorf, sheets 409 and 312	4,517,258	4,469,571
Bremer Landesbank	2,036,016	1,620,000	First priority land charge of EUR 2,436,000 in the local subdistrict of Schönwalde, sheet 271, assignment of biogas plants and inventories including machinery and equipment, Assignment of claims of electricity producers	2,325,741	2,492,747
Bremer Landesbank	1,860,000	1,590,000	First priority land charge of EUR 2,260,000 in the local subdistrict of Salzwedel, sheet 14046 cadastral district 80, assignment of biogas plants and inventories including machinery and equipment, Assignment of claims of electricity producers	2,742,639	2,458,638
Bremer Landesbank	1,949,400	1,964,000	First priority land charge of EUR 2,184,000 in the local subdistrict of Osterburg, sheet 10359 cadastral district 5, assignment of biogas plants and inventories including machinery and equipment. Assignment of claims of electricity producers	2,747,832	2,896,490
Oldenburgische Landesbank AG	1,895,000	0	First priority land charge of EUR 1,895,000 in the site in Schenkenhorst, sheet 201 cadastral district 248/0; assignment of biogas plant, Assignment of claims of energy utilities	2,146,687	0
Hypo Alpe-Adria Leasing GmbH	3,432,869	0	First priority land charge of EUR 2,160,000 in the site in Bützow, sheet 4983 cadastral district 7 lot 72/18; assignment of biogas plant, Assignment of claims of energy utilities	2,646,754	0
Volksbank Dinklage-Steinfeld eG	739,000	0	Assignment of CHPP, Assignment of claims of energy utilities from the operation of the biogas plant by Fünfte Biogas Bützow Betriebs GmbH & Co. KG	779,540	0
	53,700,310	47,214,669		64,952,788	58,816,872

Of the total liabilities to shareholders, an amount of EUR 155k (previous year: EUR 158k) relates to short-term loans granted by minority shareholders in the context of liquidity management for the company's own biogas plants, while an amount of EUR 660k (previous year: EUR 0k) relates to liabilities in conjunction with the purchase of biogas plants. These loans carry an interest rate of 5%. An amount of EUR 5,484k (previous year: EUR 5,519k) relates to compensation claims of minority interests. Other financial liabilities in an amount of EUR 804k (previous year: EUR 748k) represent loan payables towards third parties that are no banks or minority shareholders.

## 17. Trade payables

All trade payables are due within one year.

## 18. Other current financial liabilities

Other current financial liabilities comprise the following:

Other current financial liabilities	12/31/12 Total in EUR	12/31/11 Total in EUR
Payroll liabilities	1,725,428	1,451,017
Social security liabilities	329,827	26,309
Liabilities from transaction taxes and amounts of withholding taxes	111,707	267,985
Deferred income	414,545	362,111
Other current liabilities	3,330,365	945,192
	<b>5,911,872</b>	<b>3,052,614</b>

The liabilities from transaction taxes and amounts of withholding tax represent turnover tax and wage and church tax due as at the balance sheet date.

Other current liabilities relate to short-term loans granted by third parties to various subsidiaries, debtors with credit balances as well as unbilled work whose amount is certain but whose time of completion is still uncertain. The loans carry an interest rate of 5% p.a. and are used for short-term liquidity management. This item also includes the negative market value of the currency forward in an amount of EUR 46k.

The deferred income includes short term grants according to IAS 20 (EUR 84k). The long term part of those grants is shown under the other long term liabilities. These grants concern grants for redemption payments which are being dissolved over the residual period of the referring assets. The concluding income is shown within the other revenues.

## 19. Tax liabilities

Tax liabilities relate to the income tax of the current fiscal year, which has not yet been paid to the tax authorities. They are recognised at the amount in which they are expected to be paid.

## 20. Disclosures on financial instruments

### 20.1. Financial risk management

As non-current and current financial liabilities carry variable interest rates, EnviTec Biogas AG is exposed to an interest rate risk, i.e. changes in the value of future payments under a financial instrument. The interest rate risk is managed and analysed by the company's management.

In 2012 EnviTec Biogas AG concluded 2 interest rate swaps (Payer-swaps) with a nominal value of 12 Mio. EUR to secure the interest rate risk of the current interest payments of 2 newly concluded loan agreements with floating interest rates. Both swaps have identical durations as the underlying loan agreements (2015 / 2017). For both swaps no inefficiencies occurred.

Fixed interest rates have been agreed for long-term loans exposed to a fair value risk. Accordingly, possible interest rate increases represent no risk for the company. The EnviTec Group aims to raise its long-term loans at fixed interest rates during times of low interest rates to achieve maximum planning certainty. In the past fiscal year 2012, the EnviTec Group had current floating-rate financial liabilities in an amount of EUR 5,303k (previous year: EUR 24,411k).

Long term floating-rate financial liabilities amount to EUR 12.000k (previous year: EUR 0k). They are being charged with a floating rate on the basis of the 6 month EURIBOR plus margin. The risk is secured with the above mentioned interest rate swaps.

Fluctuations by +/- 50 base points or 0.5% p.a. were used in the sensitivity analysis. An increase by 50 basis points would reduce the financial result by EUR 87k, while a decline would increase the financial result by EUR 87k. Accordingly, equity would decline/increase by EUR 63k.

As of the end of the fiscal year, long-term loans amounted to EUR 76,402k (previous year: EUR 46,534k). Fixed interest rates between 2.4% and 6.23% have been agreed. Except for the above loan, no long-term floating-rate loans exist.

Sales and purchases are generally effected in the company currency and entail no material currency risks. Currency risks may arise in conjunction with the Czech subsidiary, as material payments are made in euros and in Czech koruna. Exchange rates are therefore monitored on an ongoing basis to ensure that currency hedging measures can be taken at an early stage. Derivative financial transactions are subject to close monitoring, which is ensured through the separation of functions.

In 2012, the company signed currency forward transactions in an amount of CZK 52,175k (previous year: CZK 64,398k) and an amount of USD 422k (previous year: USD 678k). These are used to hedge future cash flows from transactions that are highly likely to materialise. No hedge accounting was performed. Changes in the value were recognised in other operating expenses and other operating income, respectively.

The value of receivables and other financial assets may be adversely affected where counterparties fail to meet their payment or other obligations. The amounts of the financial assets stated in the balance sheet represent the maximum default risk in the event that business partners fail to meet their obligations. Credit risks are mitigated by constant monitoring of the individual receivables as well as by appropriate hedging measures such as creditworthiness checks by external agencies and the presentation of financing commitments from banks. A comprehensive set of securities has been implemented for one loan, which amounts to EUR 8,803k (previous year: EUR 8,875k) Actual defaults in the past were low. As of the reporting date, the EnviTec Group had term and overnight accounts with German banks that are members of the "Einlagensicherungsfonds" (German deposit guaranty fund). A material creditworthiness risk does not exist.

Liquidity risks are mitigated by advance payments from customers, which are matched to the specific contract and the stage of completion. The construction of the properties in Lohne and Saerbeck was financed with long-term bank loans carrying fixed interest rates. Liquidity management measures include the daily report-

ing of the liquidity status and monthly liquidity budgets based on the company's budgets as well the holding of a sufficient reserve of liquid funds. Due to the existing credit lines, no liquidity risks exist. Unused credit lines totalled EUR 24,409k as of December 31, 2012 (previous year: EUR 10,220k).

In September 2012 a bonded loan has been concluded for which the company has to meet certain covenants regarding equity ration and debt-to-equity ratio. All financial covenant were met as per 31.12.2012.

The table below shows the agreed payment flows of the financial liabilities:

Due in	12/31/12 in EUR	Due in	12/31/11 in EUR
2013	84,056,779	2012	73,410,292
2014	9,669,592	2013	7,151,449
2015	18,411,330	2014	6,346,532
2016	7,676,928	2015	5,986,807
2017	22,021,122	2016	5,446,655
2018 and thereafter	41,723,865	2017 and thereafter	36,462,007
	<b>183,559,616</b>		<b>134,803,742</b>

The table below shows the agreed payment flows of the deviates:

Due in	12/31/12 in EUR	Due in	12/31/11 in EUR
2013	101,124	2012	-28,883
2014	43,377	2013	0
2015	13,714	2014	0
2016	-11,693	2015	0
2017	-14,709	2016	0
	<b>131,813</b>		<b>-28,883</b>

## 20.2. Presentation of financial instruments

The table below shows the measurement categories and carrying amounts of financial assets and liabilities:

Financial instruments 2012 and 2011	IAS 39 Measurement category		Carrying amount In kEUR		Fair Value in kEUR	
	2012	2011	12/31/12	12/31/11	12/31/12	12/31/11
<b>Assets</b>						
Other non-current receivables	LAR	LAR	17,901	13,683	20,907	14,851
Trade receivables	LAR	LAR	29,751	21,978	29,751	21,978
Loans to third parties	LAR	LAR	19,068	22,866	19,068	22,866
Receivables from associated companies	LAR	LAR	21,526	30,664	21,526	30,664
Interest claims	LAR	LAR	65	47	65	47
Other short-term receivables	LAR	LAR	6,357	6,203	6,357	6,203
Derivative	HfT	HfT	4	67	4	67
Liquid funds	LAR	LAR	20,650	13,853	20,650	13,853

Liabilities	FLAC	FLAC	81,984	46,785	76,147	45,281
Non-current financial liabilities	FLAC	FLAC	81,984	46,785	76,147	45,281
Current financial liabilities	FLAC	FLAC	18,847	35,400	18,847	35,540
Trade payables	FLAC	FLAC	28,089	16,571	28,089	16,571
Derivative	HfT	HfT	46	26	46	26
Derivative (interest rate swap)	n. a.	n. a.	205	0	205	0

### Financial instruments 2012

Thereof aggregated by measurement categories pursuant to IAS 39:

Loans and Receivables (LAR):	EUR 115,318k
Financial Liabilities at	
Amortised Costs (FLAC):	EUR 128,920k
Held for Trading	EUR -42k

### Financial instruments 2011

Thereof aggregated by measurement categories pursuant to IAS 39:

Loans and Receivables (LAR):	EUR 109,294k
Financial Liabilities at	
Amortised Costs (FLAC):	EUR 98,756k
Held for Trading	EUR 41k

In view of the short terms of trade receivables, other assets (excl. derivative financial instruments) as well as cash and cash equivalents, it is assumed that the carrying amount is equivalent to the fair value. It is assumed that the carrying amount of current financial liabilities (excl. derivative financial instruments) is equivalent to the fair value. The fair value of non-current financial liabilities and financial assets is derived from the present value of the expected future cash flows. Discounting is performed at the rates applicable as of the balance sheet date.

The fair value of the long-term financial liabilities of EUR 476k (previous year: EUR 415k) was determined using the DCF method and relates to the obligation to compensate minority shareholders/partners, specifically the atypical silent partners in Biogas Nordholz GmbH, Minden. The underlying WACC is 6.55% (previous year: 5.57%). The maximum default risk results from the recognition in the balance sheet and amounts to EUR 476k

(previous year: EUR 415k). According to the fair value hierarchy defined in IFRS 7, this is a fair value of level 3 (measurement using factors not based on observable market data). The change in the fair value by EUR 61k (previous year: EUR 276k) was recognised in other operating income. Liabilities to minority shareholders totalled EUR 5,008k (previous year: EUR 5,569k). They were accounted for in accordance with the anticipated acquisition method.

The fair value of the currency forwards is a level 2 fair value (measurement based on parameters that are not quoted prices used at level 1 but which are observable for the financial instrument either directly (i.e. as a price) or indirectly (i.e. derived from prices)). The fair value is determined using generally accepted valuation methods.

Of the financial liabilities shown, an amount of EUR 1,961k (previous year: EUR 2,019k) has been furnished as collateral for liabilities to banks.

Net result and allowances by measurement categories:

EURk	12/31/12	12/31/11
Loans and receivables	6,053	-1,121
Thereof allowances on loans and receivables	-675	-3,494
Thereof interest income	4,925	2,373
Thereof retransfer of valuation allowances	1,803	0
Net result		
Liabilities at net book value	-3,349	-2,067
Thereof interest expenses	-3,349	-2,067
Net result Held for trading	-83	0
Thereof allowances	83	0

## Disclosures on the consolidated income statement

### 21. Sales revenues

Sales revenues are primarily generated from the sale of biogas plants. Sales revenues also include revenues from projects in progress as at the balance sheet date based on the stage of completion of these projects. Sales revenues comprise service revenues in an amount of EUR 17,412k (previous year: EUR 14,352k) as well as income from the feeding-in of electricity and the supply of heat in an amount of EUR 40,794k (previous year: EUR 28,554k) and income from the marketing of electricity of EUR 7,624k (previous year: 0). The table below shows the changes in sales revenues:

2012	2011	Change	
in EUR	in EUR	in EURk	in %
190,452,055	243,910,084	-53,458	-21.9

2012	2011	Change	
in EUR	in EUR	in EURk	in %
8,700,919	7,617,709	1,083	14.22

### 23. Cost of materials

The cost of materials primarily includes material costs (EUR 105.839k, previous year: EUR 161,519k) as well as the cost of outside services for the construction and operation of biogas plants (EUR 12.018k, previous year: EUR 1,998k) This item also includes project planning expenses (EUR 309k, previous year: EUR 824k) as well as expenses for substrates (EUR 14,387k, previous year: EUR 11,407k). The changes in the cost of materials are shown below:

2012	2011	Change	
in EUR	in EUR	in EURk	in %
132,552,862	175,748,033	-43,195	-24.58

### 22. Other operating income

Other operating income primarily includes income from the sale of raw materials for biogas plants of EUR 1,456k (previous year: EUR 1,696k), employee deductions for non-monetary compensation in an amount of EUR 376k (previous year: EUR 343k), income from the release of itemised allowances on receivables in an amount of EUR 1,803k (previous year: EUR 79k), income from costs charging of EUR 1,279k (previous year: EUR 822k), income from the release of provisions in an amount of EUR 167k (previous year: EUR 274k), income from supplier refunds of EUR 948k (previous year: EUR 1,625k), income from service charging of EUR 1,984k (previous year: EUR 1,437k), income from the release of compensation obligations of EUR 0k (previous year: EUR 276k), income from insurance claims in an amount of EUR 281k (previous year: EUR 249k), from subsidies of EUR 247k (previous year: EUR 0k), income from initial consolidation in an amount of EUR 130k (previous year: EUR 0k) as well as income from electricity tax refunds of EUR 30k (previous year EUR 0).

### 24. Personnel expenses and employees

#### Personnel expenses

Personnel expenses include wages and salaries in an amount of EUR 17,793k (previous year: EUR 17,536k) as well as social security expenses and pension and support expenses in an amount of EUR 4,431k (previous year: EUR 3,990k). Special payments to employees in an amount of EUR 105k (previous year: EUR 503k) are also included in personnel expenses. Personnel expenses increased primarily because of the expansion of the international activities, the expansion of the Service segment as well as overtime worked and changed as follows:

2012	2011	Change	
in EUR	in EUR	in EURk	in %
22,224,525	21,525,762	699	3.25

## Employees

An average of 473 people were employed in 2012 (previous year: 461), which represents an increase of 2.6% over the previous year. Of the average headcount, 378 people are white-collar workers while 95 people are blue-collar workers. Most employees are employed in the production and technology departments.

## Employer's contribution to pension insurance

Personnel expenses in the fiscal year included employer's contributions to pension insurance of EUR 1,346k (previous year: EUR 1,311k).

## 25. Amortisation and depreciation

Depreciation and amortisation increased significantly compared to the previous year, primarily as a result of the expansion of the Own Plant Operation segment. The changes in depreciation and amortisation are shown below:

2012		2011		Change
in EUR	in EUR	in EURk	in %	
13,227,951	9,491,669	3,736	39.36	

Depreciation and amortisation include higher-than-normal depreciation/amortisation of inventories in the amount of EUR 1,015k as well as write-downs for impairment of plants under construction in the amount of EUR 407k. In the previous year, depreciation and amortisation included impairments of current assets (EUR 718k) as well as write-downs for impairment on licenses in an amount of EUR 443k. For further details on depreciation and amortisation, please refer to the fixed-asset movement schedule.

## 26. Other operating expenses

Other operating expenses comprise operating expenses, administrative expenses and selling expenses. Selling expenses declined against the previous year

due to the much lower sales commissions (EUR 761k (previous year: EUR 6,326k)). The increase in operating expenses is primarily due to additions of fully consolidated companies in the Own Plant Operation segment. Administrative expenses rose by EUR 694k to EUR 5,725k, primarily because of allowances on receivables. The changes in other operating expenses are shown below.

2012	2011	Change
in EUR	in EUR	in EURk
29,849,705	34,003,386	-4,154 -12.22

Other operating expenses comprise the following items:

	2012 in EUR	2011 in EUR
Operating expenses	14,746,308	13,856,313
Selling expenses	9,378,312	15,115,373
Administrative expenses	5,725,084	5,031,700
<b>Total</b>	<b>29,849,705</b>	<b>34,003,386</b>

## 27. Result from companies valued at equity

The result from companies consolidated at equity comprises the pro-rated results of 67 (previous year: 65) companies.

Pursuant to IAS 28.37g, losses that exceed the interest in an associate are not recognised but carried in separate account to be offset against potential profits subsequently reported by the associate. Losses not recognised due to this provision totalled EUR 66k (previous year: 25k) in the fiscal year (cumulative: EUR 135k).

2012		2011		Change
in EUR	in EUR	in EURk	in %	
114,051	-99,447	214	214.7	

## 28. Interest income

Interest income increased sharply compared to the previous year as interest on arrears was charged for old receivables.

2012		2011		Change
in EUR	in EUR	in EURk	in %	
4,924,875	2,372,293	2,553	107.6	

2012		2011	
in EUR	in EUR	in EURk	in %
1,880,107	3,226,421	-1,346	-41.7

Tax expenses break down as follows:

	2012 in EUR	2011 in EUR
Deferred tax income/expense	-3,210,865	1,590,394
Income taxes paid or due	5,090,972	1,636,027
<b>Total</b>	<b>1,880,107</b>	<b>3,226,421</b>

## 29. Interest expense

Interest expenses include interest and similar expenses, especially for bank liabilities and current liabilities for the liquidity management of related parties. The changes in other financial expenses are shown below:

2012		2011		Change
in EUR	in EUR	in EURk	in %	
3,348,672	2,085,162	1,264	60.6	

A breakdown of interest expenses into non-current financial liabilities, current financial liabilities and other liabilities is provided below:

	2012 in EUR	2011 in EUR
Non-current financial liabilities	2,686,870	1,778,178
Current financial liabilities	402,222	288,578
Other liabilities	259,580	18,406
<b>Total</b>	<b>3,348,672</b>	<b>2,085,162</b>

## Tax reconciliation

Current tax expenses of the year 2012 in an amount of EUR 1,880k (previous year: EUR 3,266k) deviated by EUR 1,041k (previous year: EUR 152k) from the expected tax expenses in an amount of EUR 839k (previous year: EUR 3,074k), which would result from the application of an average tax rate on the company's pre-tax profit. This average tax rate is determined on the basis of corporate income tax (15%), solidarity surcharge (5.5%) and a trade tax rate of 350%. The reasons for the difference between expected and current tax expenses are illustrated below:

	2012 in EUR	2011 in EUR
Earnings before income taxes	2,988,184	10,946,627
Applicable tax rate	28.08%	28.08%
<b>Expected tax expenses</b>	<b>839,082</b>	<b>3,073,813</b>
Loss carryforwards that cannot be used and/or use of unrecognised loss carryforwards and depreciation of loss carryforwards	965,334	840,660
Difference between expected and current trade tax rates as well as Trade tax additions and reductions	-119,130	-259,073
Profits/losses attributable for tax purposes only	3,805	25,003
Result from companies accounted for at equity	1,322	27,925
Deviations from tax rates at subsidiaries in other jurisdictions	139,380	-51,178
<b>Non-deductible expenses</b>	<b>257,450</b>	<b>28,488</b>

## 30. Income taxes

### Tax expenses

Income taxes paid or due as well as deferred tax assets and liabilities are shown as income taxes. In the fiscal year 2012 and the previous year, deferred taxes primarily resulted from taxable temporary differences between the carrying amounts and the tax bases of the balance sheet items "gross amount due from and to customers for contract work". Changes in tax expenses are shown below:

Off-period taxes	-178,127	-400,360
Miscellaneous	-29,009	-58,857
<b>Current tax expenses</b>	<b>1,880,107</b>	<b>3,226,421</b>

The table below shows the deferred tax assets and liabilities as of 31 December 2012 and 31 December 2011:

	12/31/12 in EURk	12/31/11 in EURk
Tax loss carryforwards	1,958	1,312
Current assets	104	44
Non-current financial liabilities	258	188
<b>Deferred tax assets</b>	<b>2,320</b>	<b>1,544</b>
Property, plant and equipment	1,410	1,450
Construction contracts	2,151	4,625
Current assets	7	6
Goodwill	265	0
<b>Deferred tax liabilities</b>	<b>3,833</b>	<b>6,081</b>

The change in deferred taxes was recognised in the income statement in the fiscal year.

Deferred tax assets were recognised for the tax losses carried forward by foreign subsidiaries and companies of the Own Plant Operation segment, as these companies could determine with sufficient certainty that it will be possible to offset these against future profits.

## 31. Earnings per share

Basic earnings per share are the quotient of the Group profit (2012: EUR 1,181k, 2011: EUR 7,549k) and the weighted average (2012: 14,850,000, 2011: 14,850,000) of the shares outstanding in the fiscal year.

The conditional increase in the share capital by up to EUR 4,500,000.00 approved by the Annual General Meeting on 26 June 2007 serves to grant shares to the holders of option and/or convertible bonds issued by EnviTec Biogas AG or a subordinate Group company once or several times in accordance with the authorisation of the Annual General Meeting. This instrument may potentially dilute the basic earnings per share in future. It was not taken into account in the calculation of the diluted earnings, as it had no diluting influence in the reporting period.

## Disclosures on the statement of cash flows

The statement of cash flows shows the changes in cash and cash equivalents of the EnviTec Group in the course of the fiscal year as a result of cash inflows and outflows. In accordance with IAS 7, a distinction is made between cash flows from operating, investing and financing activities. Cash and cash equivalents shown in the statement of cash flows comprise cash in hand and cash at banks.

### 32. Cash inflows/outflows from operating activities

The gross cash flow in an amount of EUR 16,451k (previous year: EUR 19,060k) shows the operating cash flow before any changes in working capital. The outflow of funds from operating activities (net cash flow) in an amount of EUR 32,461k (previous year: outflow of EUR -3,350k) additionally reflects the changes in working capital, especially in conjunction with construction contracts, and in other net assets as well as other non-cash transactions.

### 33. Cash outflows from investing activities

Cash outflows from investing activities amounted to EUR 54,181k in 2012 (previous year: outflows of EUR 34,663k) and were mainly attributable to investments in property, plant and equipment (biogas plants) as well as plant and office equipment. An amount of EUR 1,917k (previous year: EUR 2,813k) was invested in the ongoing expansion of the Own Plant Operation segment, where further project companies were established and existing ones supplied with additional capital.

### 34. Cash inflows from financing activities

Cash inflows from financing activities totalled EUR 28,517k (previous year: EUR 41,343k). Inflows resulting from the raising of loans from banks in an amount of

EUR 45,118k (previous year: EUR 46,133k) and of short-term financial liabilities of EUR 15,158k (previous year: 670k) were offset primarily by outflows from the repayment of long-term and short-term financial liabilities of EUR 28,055k (previous year: EUR 3,808k).

## 35. Cash and cash equivalents

Cash and cash equivalents include cash in hand and cash at banks with a term of up to 3 months.

## Other disclosures

## 36. Contingent liabilities and other financial obligations

### Contingent liabilities

As of the reporting date, the Group had extended a guaranty in a total amount of EUR 1,000k towards Bremer Landesbank for obligations of four fully consolidated subsidiaries and a subsidiary accounted for using the equity method (previous year: EUR 1,000k). No claims are expected to be raised under this guaranty.

Moreover, the Group has extended a guaranty in an amount of EUR 200k (previous year: EUR 200k) towards Sparkasse Rotenburg-Bremervörde for obligations of a subsidiary accounted for using the equity method. The risk of claims being raised under this guaranty is below 50%.

The Group has issued a guaranty to VR Bank Dinklage-Steinfeld eG for obligations in an amount of EUR 250k of another company accounted for using the equity method. The risk of claims being raised under this guaranty is below 50%.

The company has undertaken to secure all receivables due to Bremer Landesbank from a non-Group entity in the amount of EUR 2,500k. The risk of claims being raised under this obligation is also below 50%.

### Other financial obligations

Other financial obligations are shown in the table below:

in EUR	Total	Remaining term		
		up to 1 year	1 to 5 years	more than 5 years
From lease agreements	105,149.97	23,966.37	64,946.88	16,236.72
From license agreements	264,019.65	88,006.55	176,013.10	0.00
From purchase commitments	2,315,691.95	2,315,691.95	0.00	0.00
<b>Total</b>	<b>2,684,861.57</b>	<b>2,427,664.87</b>	<b>240,959.98</b>	<b>16,236.72</b>

In addition, some of the own plants have lease agreements of minor importance. Payments for lease amounted in 2012 to EUR 25,766 (previous year: EUR 12,888).

### Finance Lease

Three affiliated companies which have been fully consolidated for the first time in 2012 had sold and buy back

their biogas plants for an amount of 1.620.000 EUR each to Hypo Alpe-Adria Leasing GmbH as a sale and buy back contract. The resulting liabilities as per 31.12.2012 amount to 3.432.869,10 EUR and are shown in liabilities to banks.

The future lease payments include interest from 788.785 EUR.

in EUR	Total	Remaining term		
		up to 1 year	1 to 5 years	more than 5 years
Ammortization	4,221,653	610,360	3,051,797	559,496

## 37. Related party disclosures

### **Companies under joint control or having a material impact on the company**

In accordance with IAS 24, parties that have the ability to exercise influence over EnviTec Biogas AG or may be influenced by EnviTec Biogas AG are regarded as related parties.

On 27 June 2007, von Lehmden Beteiligungs GmbH, Lohne, Ruhe Verwaltungs GmbH, Lüsche, and TS Holding GmbH, Visbek, signed a consortium agreement on the pooling of voting rights. Under this agreement, the shares held by these companies at the time of the IPO of EnviTec Biogas AG are fully attributable to the respective companies. This excludes all common shares in Envitec Biogas AG acquired by a partner in the consortium on the stock exchange. As a result, 74,90% (previous year: 74.90%) of the voting rights in EnviTec Biogas AG were attributable to each of the companies as of 31 December 2012. No transactions with this consortium occurred in the past fiscal year or the previous year. Transactions with individual companies of the consortium are listed further below. von Lehmden Beteiligungs GmbH is the ultimate controlling company of EnviTec Biogas AG.

### **Members of the management in key positions**

Please refer to "Disclosures on Corporate Officers". These include the members of the Executive Board and the Supervisory Board. Relationships with companies controlled by Executive Board members are also shown here.

### **Subsidiaries, joint ventures and associated companies**

Please refer to "Basis of consolidation and consolidation methods" and to shareholdings. Balances and business transactions with fully consolidated companies were eliminated in the context of consolidation and are not explained here.

### **Other related parties**

Related parties also include enterprises as defined in IAS 24.9(b)(vi), (vii).

### **Transactions with related parties**

In the context of its operations, EnviTec Biogas AG sources materials, inventories and services from numerous business partners. These include companies that are related to controlling bodies or shareholders of the company.

Related parties include the parties listed below. No material transactions with other related parties were made in the fiscal year.

Transactions with related parties	Transaction Amount in EUR		Receivable Amount in EUR		Liability Amount in EUR	
	2012	2011	2012	2011	2012	2011
<b>Members of the management in key positions of the company</b>						
von Lehmden Beteiligungs GmbH	1,769	-79,075	726	707	664,801	135
<b>Associated companies</b>						
Accumulated	8,693,754	22,232,411	17,578,107	29,606,598	422,514	24,381
<b>Related parties</b>						
Schulz Systemtechnik GmbH	-11,963,569	-11,936,705	0	0	1,500,125	-248,397
Bioenergie Park Forst GmbH*	0	116,556	3,120,000	3,014,956	0	0
Agrico Handelsgesellschaft mbH	38,223	150,300	3,456,578	3,272,285	0	0
BGF GmbH & Co. KG	62,573	44,160	10,008	5,938	12,778	0
LvL GmbH	-96,606	-77,914	0	0	12,115	7,140
MVL Verwaltungs GmbH	-28,994	-114,570	-522	0	0	8,711

Transactions whose amounts are marked with a negative sign are expenses incurred for the EnviTec Group, while transactions whose amounts are marked with a positive sign represent income of the EnviTec Group.

\*The fact that the disclosures on related parties are more comprehensive than in the previous year is not attributable to incorrect accounting and therefore has no further impact on the financial statements.

The above transactions with members of the management mainly include interest expenses related to a loan granted in the course of the year. Transactions with associated companies and joint ventures mainly relate to interest income and income from the sale of biogas plants and machines.

## 38. German Corporate Governance Code

The Executive Board and the Supervisory Board of Envitec Biogas AG have issued the declaration of conformity required pursuant to section 161 of the German Stock Corporation Act (AktG) and made it permanently available on the company's website [WWW.ENVITEC-BIOGAS.COM/EN/INVESTOR-RELATIONS/CORPORATE-GOVERNANCE/DECLARATION-OF-CONFORMITY](http://WWW.ENVITEC-BIOGAS.COM/EN/INVESTOR-RELATIONS/CORPORATE-GOVERNANCE/DECLARATION-OF-CONFORMITY).

## 39. Auditor's fees

The following fees were recognised as expenses for the services provided by the auditors of the consolidated financial statements, Rödl & Partner GmbH, Wirtschaftsprüfungsgesellschaft, Steuerberatungsgesellschaft, Munich:

	2012 in EURk	2011 in EURk
Audits of financial statements	182	126
Other assurance services	28	28
Tax advisory services	55	31
<b>Total</b>	<b>265</b>	<b>185</b>

The audit fees comprise the fees for the audit of the consolidated financial statements and of the separate financial statements of EnviTec Biogas AG. In the past fiscal year, the fees for other advisory or valuation services exclusively relate to the review of the interim report. The tax advisory services relate to advice on VAT provided in conjunction with construction sites abroad.

Jürgen Tenbrink, engineer, Steinfurt  
Technical director (CTO)  
since 1 July 2010

The members of the Executive Board held no other mandates.

The compensation of the Executive Board consists of the following components:

- > Fixed compensation in the form of a monthly salary
- > Variable compensation based on the operating result of the EnviTec Group

As compensation for a competition prohibition imposed on them following the regular end of their activity as a member of the Executive Board, the members of the Executive Board will receive an ex gratia payment equal to 50% of the fixed compensation last received for a period of up to one year. In the event of premature termination of their activity as a member of the Executive Board, the ex gratia payment depends on the circumstances of the termination pursuant to section 75 of the German Commercial Code.

The following compensation was paid to the members of the Executive Board in the fiscal year 2012:

## 40. Disclosures on corporate officers

### Executive Board

The Executive Board had the following members in the fiscal year 2012:

Olaf von Lehmden, businessman, Lohne,  
Chairman of the board (CEO)  
since 1 July 2007

Jörg Fischer, businessman, Weyhe,  
Finance director (CFO)  
since 1 July 2007

Roel Slotman, businessman, Enter/Netherlands,  
International sales director (CCO)  
since 1 October 2009

in EUR	Fixed compensation		Variable compensation		Other *		Total		
	2012	2011	2012	2011	2012	2011	2012	2011	2011
Olaf von Lehmden	145,325	141,750	3,077	3,077	15,111	12,281	163,513	157,108	
Jörg Fischer	134,500	130,000	2,367	2,367	10,265	7,991	147,132	140,358	
Roel Slotman	124,500	120,000	2,367	2,367	10,481	8,987	137,348	131,354	
Jürgen Tenbrink	120,665	120,000	2,367	2,367	13,742	12,904	136,774	135,271	

\*Other compensation includes benefits in money's worth resulting from the use of company cars as well as the portions of the D&O insurance attributable to the Executive Board members

## Supervisory Board

Appointees to the Supervisory Board in the reporting period:

- > Mr Bernard Ellmann, businessman, (Chairman)  
Former Group Vice President of Unilever Group, Rotterdam/London
- Member of the Supervisory Board of Unilever Deutschland Holding GmbH, Hamburg
- Member of the Advisory Board of the Müller Group, Aretsried & Zurich (till March 2012)
- Member of the Supervisory Board of Nordsee GmbH, Bremerhaven
- Chairman of the Supervisory Board of Finco Signature BV, Losser, Netherland (since June 2012)
- > Mr Hans-Joachim Jung, businessman, (vice Chairman)  
Former member of the Executive Board of KELAG Kärntner-Elektrizität Aktiengesellschaft
- > Mr Michael Böging, businessman  
Managing Partner of Unternehmensgruppe Weiße Köpfe GmbH, Emstek

The expenses for the compensation of the Supervisory Board in the fiscal year 2012 include fixed compensation for the Supervisory Board activity at EnviTec Biogas AG in an amount of EUR 40,000 (previous year: EUR 40,000).

Other compensation (meeting attendance fees and refunds of expenses) totalled EUR 36,000 (previous year: EUR 28,465).

## 41. Post balance sheet events

### Structural and personnel adjustments

In 2013, the reduced demand for biogas plants led to a significant drop in sales revenues in the Plant Construction segment of EnviTec Biogas AG, which cannot be fully offset by the Own Plant Operation, Service and Energy segments. The Executive Board therefore decided to implement stringent structural and personnel adjustments in the Plant Construction segment.

### Step-Up of shareholding

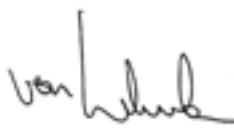
In February 2013 EnviTec Biogas AG raised its shares in Biogas Operating Holding S.r.l to 100% by purchasing the remaining shares of former minority shareholders.

### Application of profits

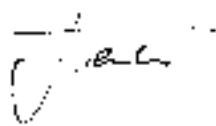
At the shareholders meeting Executive Board and Supervisory Board of the EnviTec Biogas AG will propose to the stockholders an extraordinary dividend of 1,00 EUR per share. This applies a consideration of own shares at an amount of EUR 14,850k.

As the payout of dividends requires the agreement of the shareholders meeting no liabilities have been accrued in the balance sheet.

Lohne, 26 April 2013



Olaf von Lehmden



Jürgen Tenbrink



Jörg Fischer



Roel Slotman

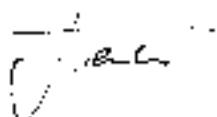
### **Assurance given by the company's legal representatives**

"To the best of our knowledge and in accordance with the applicable reporting principles, we attest that the Group financial statements convey a true and fair picture of the asset, financial and income situation of the EnviTec Biogas Group, and the Group management report describes the business development and business results and actual situation of the Group in such a way that a correct picture of the actual situation and major risks and opportunities of the Group's probable development is described."

Lohne, 26 April 2013



Olaf von Lehmden



Jürgen Tenbrink



Jörg Fischer



Roel Slotman

## Fixed asset schedule as at 31 december 2012

Fixed Assets in EUR	Balance on 01/01/2012	Addition 2012	Addition first consolidation 2012	Disposals 2012	Rebooking 2012	Balance on 12/31/2012
Historical costs						
<b>I. Intangible Assets</b>						
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	2,033,347	194,807	17,503	0	0	2,245,657
2. Goodwill	2,229,147	0	2,129,310	0	0	4,358,457
3. Prepayments	0	57,098	0	0	0	57,098
	<b>4,262,494</b>	<b>251,904</b>	<b>2,146,814</b>	<b>0</b>	<b>0</b>	<b>6,661,212</b>
<b>II. Sachanlagen</b>						
1. Land, similar-rights and buildings including buildings on leasehold hand	26,404,665	5,707,074	1,156,474	0	204,877	33,473,089
2. Technical equipment and machinery	60,251,545	15,211,321	4,241,733	18,239	6,959,170	86,645,529
3. Other equipment, factory and office equipment	16,402,128	2,507,589	55,147	1,164,709	0	17,800,156
4. Prepayments and construction in process	8,748,846	22,345,570	0	86,583	-7,164,047	23,843,785
	<b>111,807,183</b>	<b>45,771,553</b>	<b>5,453,354</b>	<b>1,269,531</b>	<b>0</b>	<b>161,762,560</b>
	<b>116,069,677</b>	<b>46,023,457</b>	<b>7,600,167</b>	<b>1,269,531</b>	<b>0</b>	<b>168,423,772</b>

Balance on 01/01/2012	Addition 2012	Disposals 2012	Balance on 12/31/2012	Balance on 12/31/2012
Depreciation			Book value	
1,542,812	268,352	0	1,811,164	434,493
0	0	0	0	4,358,457
0	0	0	0	57,098
<b>1,542,812</b>	<b>268,352</b>	<b>0</b>	<b>1,811,164</b>	<b>4,850,048</b>
<hr/>				
2,776,179	1,541,025	0	4,317,204	29,155,885
14,267,430	7,822,000	2,737	22,086,693	64,558,836
7,802,554	2,022,877	899,605	8,925,825	8,874,330
0	407,073	0	407,073	23,436,712
<b>24,846,162</b>	<b>11,792,975</b>	<b>902,342</b>	<b>35,736,795</b>	<b>126,025,763</b>
<b>26,388,974</b>	<b>12,061,328</b>	<b>902,342</b>	<b>37,547,961</b>	<b>130,875,811</b>

## Fixed asset schedule as at 31 december 2011

Fixed Assets in EUR	Balance on 01/01/2011	Addition 2011	Disposals 2011	Rebooking 2011	Balance on 12/31/2011
Historical costs					
I. Intangible Assets					
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	1,901,650	131,934	237	0	2,033,347
2. Goodwill	2,229,147	0	0	0	2,229,147
	4,130,797	131,934	237	0	4,262,494
II. Tangible Assets					
1. Land, similar-rights and buildings including buildings on leasehold hand	18,563,544	7,556,235	0	284,886	26,404,665
2. Technical equipment and machinery	40,706,697	16,353,954	37,511	3,228,404	60,251,545
3. Other equipment, factory and office equipment	13,464,917	3,414,403	484,503	7,310	16,402,128
4. Prepayments and construction in process	5,313,013	7,337,920	381,486	-3,520,601	8,748,846
	78,048,171	34,662,512	903,500	0	111,807,184
	82,178,968	34,794,446	903,737	0	116,069,678

Balance on 01/01/2011	Addition 2011	Disposals 2011	Balance on 12/31/2011	Balance on 12/31/2011
Depreciation			Book value	
748,156	794,655	0	1,542,812	490,535
0	0	0	0	2,229,147
<b>748,156</b>	<b>794,655</b>	<b>0</b>	<b>1,542,812</b>	<b>2,719,682</b>
1,935,124	841,054	0	2,776,179	23,628,487
9,223,714	5,044,654	938	14,267,430	45,984,115
6,063,973	2,093,380	354,799	7,802,554	8,599,573
0	0	0	0	8,748,846
<b>17,222,811</b>	<b>7,979,088</b>	<b>355,737</b>	<b>24,846,163</b>	<b>86,961,021</b>
<b>17,970,967</b>	<b>8,773,744</b>	<b>355,737</b>	<b>26,388,975</b>	<b>89,680,703</b>

## Independent Auditors' Report

We have audited the consolidated financial statements prepared by EnviTec Biogas AG, Lohne, comprising Consolidated Balance Sheet, Consolidated Income Statement and Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity, Consolidated Cash Flow Statement and Notes to the Consolidated Financial Statements, together with the Group Management Report which is combined with the Management Report of EnviTec Biogas AG for the business year from 1 January to 31 December 2012. The preparation of the consolidated financial statements and the group management report in accordance with IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a (1) HGB and supplementary provisions of the shareholder agreement of incorporation are the responsibility of the company's Board of Management. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance

with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be

included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU, the additional requirements of German commercial law pursuant to § 315a (1) HGB and supplementary provisions of the shareholder agreement of incorporation and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report which is combined with the management report of the company is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Munich, 26 April 2013

Rödl & Partner GmbH  
Wirtschaftsprüfungsgesellschaft  
Steuerberatungsgesellschaft

gez. Ronald Hager  
German Public Accountant

gez. Joachim Pantze  
German Public Accountant

# GLOSSARY

# GLOSSARY

## A

### Acetic Acid

The oldest known and most important carbonic acid to this very day, it is an important base for methane accumulation.

### Acid level

The total acid in the fermenter. High loads in the fermenter in the starting phase lead to a very high concentration of acid.

### Adaptation

Ability of microorganisms to adapt to an elevated pH level without experiencing sustained disturbances in the process biology.

### Aerobe

A microorganism that grows in the presence of oxygen. See Anaerobe organisms.

### Agitator

Machine for the consistent mixing of substances in tanks.

### Air Pollution Prevention

In some countries it may be necessary to observe the emissions of odours, harmful substances and dust.

### Amino acid

Any of the 20 basic building blocks of proteins. Composed of a free amino ( $\text{NH}_2$ ) end, a free carboxyl ( $\text{COOH}$ ) end, and a side group (R).

### Anaerobic organisms

Organisms which can temporarily or continuously live without free oxygen. Anaerobic bacteria convert biomass into fermentation (bio) gas.

### Anhydrous mass

Organic and inorganic components of the input material. Only the organic part of the anhydrous mass can be used for methane production.

### Anionic trash

Substances that can impair the functionality of the plant and are removed manually or mechanically.

## B

### Antibiotics

A class of natural and synthetic compounds that inhibit the growth of or kill other microorganisms. Also used as feed additives that inhibit the process biology and aeration similar to the inhibitors  $\text{NH}_4$  and  $\text{NH}_3$  as well as the heavy metals copper and zinc.

## B

### Bacterium

A single-celled, microscopic prokaryotic organism: a single-cell organism without a distinct nucleus.

### BHKW (Blockheizkraftwerk)

Block heat and power plant.

### Biogas

Gas which develops during the anaerobic decomposition of organic substances.

### Biogas Cleaning

Precipitation of humidity and corrosive gas from the biogas to protect the engine.

### Biomass

Energy source from organic substances, where scorched biomass releases only the amount of  $\text{CO}_2$  which it has taken from the atmosphere during growth. That's why the energy production does not contribute to the greenhouse effect.

### Block heat and power plant

Engine with an attached generator for production of electricity and heat.

## C

### Carbon dioxide

Gas that develops when fossil combustibles like coal, oil or natural gas are used.  $\text{CO}_2$  is the main cause for the greenhouse effect that changes the climate.

### Cellulose

Cell membranes which are hard to decompose microbially.

## C

### Coal

Fossil energy source with low energy content. Almost two thirds of the electricity used in Germany is produced in coal power plants. In comparison to all other energy sources, the coal causes the highest CO emissions.

### Colonisation surfaces

Serve bacteria as location/surface habitat.

### Combustion engine system

Engine for the production of electricity, steam, hot water and process heat.

### Combustion heat output

Amount of energy from a BHKW that is necessary for a full load operation.

### Condensate

Humidity that is separated from biogas through condensation.

### Condensate shaft

Shaft for collecting and pumping down of the accumulating condensate.

### Condensation

Transition from a gaseous to a fluid aggregate state.

### Container load

> Digestor load

### Corn acceptance

Accepting technique for supply inventory and consistent feeding of a biogas plant with corn silage.

### Corrosion

Chemical alterations in the material at the surface of solid bodies, i.e. the fermenter.

### Crusher

Conditioning method with the target to increase the accessible surface of the material.

## D

### Decomposition speed

Speed of decomposition of the organic substance. It depends on the condition, surface and composition of the basic substances as well as the temperature in the fermenter.

## Deodorisation

Removal of disturbing odours of odour-intensive substances to avoid emission.

## Deposits

Procedure that occurs especially in heterogeneous substances which tend to segregate and which can be avoided in a container with smooth walls, agitator and a flow temperature that is not too high.

## Desulphurisation

Precipitation of hydrosulphide from biogas.

## Digester

> Fermenter

## Digester load

Amount of additives consisting of organic dry substances per cubic meter of fermenter volume and day.

## Dry fermentation

Plant in which predominantly dry substrates are fermented to become compact and which cannot be agitated. This supplies less gas than wet fermentation.

## DVGW-Codes

Codes for the manufacturing of gas containers.

## E

## Ecology

The study of the interactions of organisms with their environment and with each other.

## Ecosystem

The organisms in a plant population and the biotic and abiotic factors which impact on them.

## Electricity home requirements

Electricity requirement of the plant in order to hold up the operation.

## Emission

Releasing of harmful substances, dust or odours into the environment.

## Enzymes

Proteins that control the various steps in all chemical reactions.

## F

## Fermentation

Process of turning biomass into biogas with the aid of microorganisms.

## Fermenter

Airtight heated tank for the anaerobic decomposition of organic substances.

## Fermenterheater

Heating system in the fermenter for acceleration of decomposition of anaerobic substances.

## Fermenting

Biochemical process in which organic substances are decomposed through anaerobic microorganisms and energy is obtained.

## Fermenting residue processing

Separation of the fermenting residue into solids, fertiliser concentrate and water in special treatment plants.

## Federal Immission Protection Law (BImSchG)

German law with the goal to protect people, animals, plants, soil, water, atmosphere, cultural and other real assets from harmful environmental effects.

## Fertilising value

Quality of the fermenting residue regarding certain substances of content, e.g., nitrate, phosphate or potash.

## Flare

Safety device for safe combustion of excess gas.

## FlexoRoof

Roof cover made of foil for fermenters and storage tanks with or without gas storage bubble.

## Flow temperature

Temperature in the heating water before the heat is withdrawn in heat usage.

## Fos (volatile organic acids)

Amount of different acids in the fermenter measured in mg/l.

## Fossil energy sources

Energy source which, in contrast to renewable raw materials, does not grow again. Brown coal, anthracite, natural gas and crude oil are such fossil energy sources.

## Fuel cell

It turns hydrogen and oxygen into water by releasing energy and heat.

## G

## Gas engine

Piston-power machine that is driven by combustible gas. It is used among other things for power- and heat generation in block heat and power plants and biogas plants as well as drives for vehicles.

## Gas injection

Method for mixing different substances in the fermenter. Biogas is compressed by high pressure through injectors at the bottom of the fermenter.

## Gas membrane

Gastight foil for collecting and storing biogas.

## Generation of methane

Process that occurs during the production of biogas.

## Generation time

Time it takes for reproduction of bacterial cultures.

## H

## Hammermühle (hammermill)

Electrical device for processing input substances by crushing the material.

## Heat exchanger

Apparatus for conveying heat between two heating systems.

## Heat value

Energy contents of fuel gas; unit: kilowatt hour per norm cubic metre.

## Hydrolyse

One of a total of four biochemical single processes in the fermenting of biomass. With the aid of microorganisms, amongst others, the biopolymers are separated into monomeric basic modules or other soluble decomposition products.

## Hydrosulphide

Type of gas that is generated during the biogas production and has to be separated from biogas through desulphurisation before it can be used, because it can cause corrosion damage in the engine.

## Hygienisation

Pasteurising, i.e. heating of the input material to 70 degrees centigrade for one hour to kill the bacteria and germs.

## I

## Immission Protection Law

Regulation for plants for biological treatment of waste products. According to this regulation, it may not come to a dangerous impact on humans, animals or nature

## Immersion agitator

Fast-running propellers which mix the input substances evenly at 300–400 rpm. variable position within the fermenter.

**Inhibition**

Process which slows down the generation of methane, e. g. through acids.

**Input material**

Substances which are suitable for the operation of a biogas plant, like liquid manure, dung, bio waste, renewable raw products, etc.

**Insulation**

Heat insulation of components against frost, protection against loss of heat and prevention of temperature fluctuation.

L

**Lignin**

Wood substance or an element in the wood which cannot be decomposed in the anaerobic process

**Longdistance heating**

Heat that develops during the power production in heating- or block heat and power plants. It gets to the consumer by help of steam or hot water through pipelines.

M

**Maintenance**

Regular testing, replacing and servicing of plant components.

**Manhole**

Inspection opening in the container wall

**Membrane technique**

Filtration technique with pore-membranes for cleaning of waste water.

**Methane**

Combustible type of gas which is generated during the bacterial decomposition of biomass. Methane is the substance in biomass that can be used for energy production. The higher its proportion the more valuable i. e. higher in energy is the biogas.

N

**NawaRos (Nachwachsende Rohstoffe)**

> Renewable primary products

**Natural gas**

Fossil fuel. Natural gas is considered the cleanest fossil energy source, because it contains the lowest amount of carbon in comparison to coal and crude oil and thus generates the least CO<sub>2</sub> emissions.

**Noise emission**

In the process of licensing a plant, some countries have noise emission levels that should not be exceeded.

**Noise reduction**

In some countries it may be necessary to consider the location, building materials and the execution of the construction because of the noise emission limitations.

**Nuclear energy**

Heat energy that is released when splitting uranium atomic nuclei. 27 % of the electricity in Germany comes from nuclear power plants. Because of the risks in splitting atomic nuclei and disposing of the fuel rods, the last German nuclear power plant is planned to be taken off the net in 2025.

O

**Oxygen**

This is gas that is colorless, flavourless and odourless. Free oxygen is found as an element of the air. It makes approx. 20.8 % of the oxygen on earth. In its combined form, it can be found in water and many minerals. Altogether it makes 49.5 percent of the weight on the surface of the earth and is thus the most frequently found element.

**Output**

Capacity of a plant in tonnes or time units per day.

**Organic Rankine cycle Plant (ORC)**

Plant for the use of electricity from industrial waste heat using high-speed Organic Rankine cycle (ORC). An Organic Rankine Cycle uses a heated chemical instead of steam, as used in the original Rankine Cycle. Chemicals or refrigerants.

P

**Pasteurising**

> Hygienisation

**pH level**

Measured level for the concentration of the hydrogen ions in a solution. A pH range between 6.5 and 7.2 is ideal, higher or lower levels disrupt the process biology.

**Photovoltaics**

Energy production through solar energy with the aid of solar collectors that convert light into electrical power.

**Pilot injection gas engine**

This is an engine on the basis of a diesel engine that was converted for biogas use. It needs backup firing equipment and is not as long living as a gas engine.

**Placing into operation**

Official start of plants or parts of plants, as a general rule the beginning of the warranty period.

**Plant safety**

Particular demands on hazardous areas, e.g., combustible atmosphere in gasholders through establishment of fire breaks, etc. according to the VDE regulations.

**Powerheat**

Process in which electricity is produced and at the same time the waste heat of the BHKW is used. KWK plants, in comparison to conventional technologies, reduce emissions of CO<sub>2</sub> and other harmful substances by 30–40 %.

**Pressure control device for pipes**

Safety equipment for pressure monitoring.

**Propagation calculation**

Calculation of the immission prognosis of pollutants and odours. It considers wind direction, wind velocity, vertical temperature layers, etc.

**Propionic acid**

Type of acid which is not desired in the process. It is generally enriched in process failures and is an additional obstruction for the aerobic metabolism.

**Protein**

Proteins are generally based on amino acids, which are the most important input substances next to carbohydrates and fats.

R

**Raw glycerine**

Substance that accrues when biodiesel is made.

**Recirculation shaft**

Insulated tank which holds fermenting substrate after it is taken from the fermenter. It is necessary, for example, when the fermenting substrate is used for mixing the fermenter input material.

**Regenerative energy sources**

Resources which are not limited in comparison to fossil energy sources, i.e. water, wind, photovoltaics and biomass. On top of this, they are climate- and environment-friendly.

**Renewable energies**

> Regenerative energy sources

**Renewable primary products**

Products from agriculture or forestry operations used for industry or the production of heat, electricity and other forms of energy.

**Retention period**

Time period that the substance remains in the fermenter and is incumbent to the organic decomposition.

**Reverse cooling**

Process in which the substances that are heated during hygienisation are cooled before being fed into the fermenter

**Risk material**

Input material that cannot be used for fermenting because of its risk potential.

**Rotary piston pump**

Device for inserting substances into the fermenter.

**U****Ultrafiltration**

Procedure for the conditioning of fermenting residue. It normally takes place after the first compact/liquid separation and is the precursor of reverse osmosis.

**V****Vaporising facility**

Facility for vaporising water to lower the water contents in a product.

**Vertical flow**

Vertical movements of substrates in a tank.

**W****Water power**

Natural power source for the electricity production. More than 20 % of the electricity worldwide originates from water power plants. Only 20 % of the water power assets worldwide are used.

**Watt**

Unit of measurement for electrical power capacity according to James Watt (1736 – 1819), the inventor of the steam engine. 1 kilowatt = 1,000 watts; 1 megawatt (mw) = 1,000,000 watts.

**Wet Fermentation Plant**

Reactor where substrates are fermented within liquids.

**Wind power**

Inexhaustible energy source where the natural current energy of the wind is used for electricity production.

**S****Sedimentation**

> Sedimentary deposition

**Sewage sludge regulation**

Regulation which determines the limit value for the pollution of sewage sludge with heavy metal and other harmful substances, among other.

**Stable disinfectant**

Substances that can retard the biogas production when overdosed.

**Steam production plant**

Plant for production of hot steam and process steam.

**Squeeze ramming separator**

Device for separating particulate material from suspension.

**Switching room**

Location of the central control station of a biogas plant.

**T****TA air**

Technical manual for air pollution prevention.

**TA noise**

Technical manual for the evaluation of sonic immissions .

**Total acid concentration**

Amount of the different acids in the fermenter, measured in milligramme per litre.

# FINANCIAL CALENDAR

30 APRIL 2013

ANNUAL ACCOUNT 2012

29 MAY 2013

INTERIM REPORT 1ST QUARTER 2013

27 JUNE 2013

ANNUAL GENERAL MEETING

29 AUGUST 2013

INTERIM REPORT 2ND QUARTER 2013

22 NOVEMBER 2013

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