



## RECYCLING METAL TO CONSERVE RESOURCES

### REMONDIS AT THE IFAT 2008

New Munich Trade Fair  
Centre 5<sup>th</sup> – 9<sup>th</sup> May



**Politics:** Fairer taxes for fair competition

**Water resources management:** Privatization of Adelsdorf's water supply

**Environmental services:** Climate protection through recycling

**Environmental services:** Raw materials for the steel industry

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## TOO MANY INCINERATORS – NOT ENOUGH WASTE

The situation on the incineration market is coming to a head. In the future, there will not be enough waste for all current and future facilities to be run profitably. In an interview, REMONDIS board spokesman, Ludger Rethmann, summarizes the current situation and explains how the market could be stabilized in the future. **Page 12**



## WATER RESOURCES MANAGEMENT – ADELSDORF'S WATER SUPPLY PRIVATIZED

As people become more and more aware of quality and costs, local councils are increasingly looking for alternative suggestions from the private sector that can provide lower priced services using state-of-the-art technology. In the Bavarian city of Adelsdorf, the local council has opted to use the experience of REMONDIS Aqua to supply its drinking water. **Page 22**



## RAW MATERIALS FOR THE STEEL INDUSTRY

Faced with rising global prices for raw materials, the metal industry's need for high quality secondary raw materials from scrap metals is growing. The TSR Group provides the global steel industry with over 10 million tonnes of this material. With its new mega-shredder in Brandenburg, REMONDIS has made sure that it will be able to continue to supply both the regional and international steel industry with materials in the future, too. **Page 24**

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Editor: REMONDIS AG & Co. KG, Brunnenstraße 138, D-44536 Lünen  
 Tel.: +49 (0) 23 06/106-515, Telefax: +49 (0) 23 06/106-530, [www.remondis.com](http://www.remondis.com), [info@remondis.com](mailto:info@remondis.com)  
 Editorial office: Michael Schneider  
 Layout: [www.atelier-14.de](http://www.atelier-14.de) Print: Lonnemann, Selm



Egbert Tölle, member of the REMONDIS board

## EDITORIAL

Dear Readers!

Today, the German water and environmental service branch is acting as global pioneers when it comes to technical innovations and efficiency. European efforts currently being made to prevent climate change are being supported by the technological progress made by our branch to achieve the economical conservation of resources. This technological progress has been achieved as a result of the billions of euros that have been increasingly invested in this field since the beginning of the 90s and which have led to the development of innovative recycling processes and had a positive effect on employment figures on the German market. Today, water and environmental service companies in Germany generate an annual turnover of around 50 billion euros and employ, in total, more than 200,000 people. The driving force behind this development are primarily privately run companies with REMONDIS taking the lead.

Our efforts have not always been backed by the creation of farsighted political framework conditions. Looking at the ambitious EU targets concerning the reduction in CO<sub>2</sub> emissions – a decision backed by the German government – and the discussion on fine particle emissions, it is a mystery as to why tax on biodiesel in Germany was increased at the beginning of 2008 from 6 to 15 cents a litre. The result has been a dramatic fall in sales which in turn means a negative impact on the environment. And there are other competitive disadvantages resulting from the different level of taxes imposed on so-called social services of general interest. It is incomprehensible that private environmental service and waste management companies are subject to the full rate of VAT whereas municipal firms active in the same field of business are not. It should not be possible for

the same services provided within one and the same market to be taxed differently. The fact that more and more local governments are using services provided by privately run water and environmental service firms despite the different tax levels underlines just how high the level of performance and achievement of private sector companies actually is. Working together with private companies means cost savings of up to 30% which can be passed on to consumers.

And it is precisely this high level of performance and cost efficiency in our branch that has led to Germany being the world's biggest exporter of environmental technology with a share of approximately 25 percent of the international environmental service market. Foreign demand for efficient recycling technology and services is growing and will remain at a high level in the long-term, too. There is an enormous need for both technology and services in many threshold and developing countries even if, in some regions, the legal framework conditions have yet to be put in place to enable a comprehensive environmental service branch to be set up. Global demand for innovative and efficient water and environmental technology and services will, in the future, also increase as a result of factors such as resource shortages and the resulting global price increases for raw materials and energy. REMONDIS is already committed to improving the situation by carrying out targeted investments in the growth markets in Central and Eastern Europe as well as in Asia and the Pacific Region. As a result of this commitment, we are playing a leading role in the restructuring of the global economy to achieve a responsible-minded and resource-friendly environmental service branch.

Your

A handwritten signature in black ink, appearing to read 'Egbert Tölle'. The signature is stylized and fluid, written over a white background.

Egbert Tölle

# Fair competition for the benefit of the general public

EQUAL TAX CONDITIONS ARE A PREREQUISITE IF SERVICES AND CHARGES ARE TO BE COMPARED OBJECTIVELY WITH ONE ANOTHER

REMONDIS board member, Egbert Tölle, talks about the advantages of the private sector being involved in the provision of municipal services, distorted competition resulting from discriminatory tax laws and contract award systems as well as the question why services provided by private sector water and environmental service companies are also part of public service provision.



Across the world, more and more municipalities are relying on the dynamism of private sector businesses.

Private sector water and environmental service companies are the driving force behind innovations, efficiency, cost awareness and, last but by no means least, environmental and climate protection. By investing billions of euros in state-of-the-art facilities and vehicles, REMONDIS has ensured that all kinds of recyclable materials – both at home and abroad – are fed back into the economic cycle in an environmentally friendly manner and that the countries' inhabitants profit from efficient waste management services and stable prices. Across the world, more and more municipalities are relying on the dynamism of private sector businesses, which, for reasons of economic necessity, are unable to just stick to the status quo but must constantly search for better solutions. More and more city councils are having their municipal services delivered either in full or in

part by high performance partners from the private sector. If the whole range of supply and waste management services are taken into consideration, then the charges for the services are often up to 30% lower than those charged by purely municipal companies. And those profiting from these cost advantages are the inhabitants in the area as they pay lower water and waste charges as well as the city councils who are able to put their public funds to even better use.

It is, therefore, absolutely incomprehensible that the State continues to protect certain municipal companies by allowing them to be exempt from paying value-added tax. There is no justifiable reason why private sector water and environmental service companies are subject to the full rate of VAT and municipal companies active in the same sector are

not. The same services provided within one market should no longer be taxed differently. The EU Commission is of the same opinion. Section 13 paragraph 1 of the EU VAT Directive – which is binding for all member states – stipulates that public sector companies must also be subject to the tax laws if their activities can also be carried out in competition with private sector businesses. This stipulation has not yet been adopted by Germany even though this would mean cost and efficiency advantages for the local councils and particularly for the citizens living in their areas.

#### **Fair competition means advantages for everyone**

Fair competition always holds the potential for optimization but this potential often remains unexploited in our market segment and not only because of the discriminatory tax laws. The way contracts are awarded also disadvantages private sector service providers. If services are not put out to tender – but awarded in-house instead – then it is impossible to make an objective comparison of prices and performance. In many cases, therefore, water supply and wastewater treatment as well as the collection and transport of municipal waste is not being carried out by the least expensive and most efficient suppliers but by municipal companies whose performance is not monitored effectively as there is a lack of comparable competition. It is often the case that the ensuing expensive charges and rates that the households would have to pay are offset by improper cross subsidization measures from other areas – again to the disadvantage of the private sector and which, in the end, put private sector jobs at risk. We clearly need more competition in Germany with everyone facing the same conditions so that public services can be provided in the most efficient way possible and for costs to remain as low as possible. Indeed, mutual advantages can be gained for both parties when municipal businesses work together in partnership with the private water and environmental service sector, as can be seen by the PPPs in towns such as Frankfurt and Oberhausen.

The results, therefore, of a representative survey of 300 German cities are logical: 73 percent of local councils judge the growing commitment of the private sector in areas that have – up to now – purely been in the hands of the public sector to be, for the most part, a positive trend. According to the study, every one in three large cities is intending to carry out privatization measures in the near future. The most recent examples of this are the cities of Lübeck, Schwerin, Cottbus, Gera and Düsseldorf which have all decided to use the public private partnership model. Besides the increase in investment dynamism and the move towards innovation, there are other strong arguments for

the growing commitment of the private water and environmental service sector. Being the largest German company in its branch, REMONDIS provides both its customers and partners with direct access to global raw material markets. And our municipal partners also profit from the global marketing of our environmental service products.

#### **Competition and public services are not in conflict with one another**

Privatizing public tasks and fulfilling public needs are not in conflict with one another. On the contrary: public welfare also means providing the most efficient and lowest cost services for the benefit of households and the public. Services that have been listed under the historical term of “social services of general interest” and were in the past provided exclusively by the State, the individual federal states and by local councils – above all supply and waste management services – are nowadays being provided more and more by private sector companies and they are proving to be considerably more efficient and less expensive. The opposite trend towards renationalizing privatized services is being justified by local councils with the argument that if they do not carry out their own economic activities they cannot guarantee that they will be able to continue to supply the important things in life.

Public welfare also means providing the most efficient and lowest cost services.

**“Being the largest German company in its branch, REMONDIS provides both its customers and partners with direct access to global raw material markets. And our municipal partners also profit from the global marketing of our environmental service products...”**

Egbert Tölle, REMONDIS board member

Using this logic, however, municipal businesses would have to extend the term “social services of general interest” to include all other basic needs such as supplying the population with clothing and food. This definition of the term is not acceptable. Every day, the high performance of the private sector proves that – especially in the area of classic public services – it is in the best interest of households and the public if local councils concentrate on their core areas of expertise, namely awarding and organizing projects, and that private water and environmental service companies are allowed to actually carry out the services.

*Egbert Tölle, REMONDIS board member*

Energy sector

# Politicians put the brakes on biodiesel

AT THE MOMENT YOU CAN FILL YOUR CAR AND PROTECT THE CLIMATE – BUT FOR HOW MUCH LONGER?

Every car that runs on biodiesel is automatically an eco-car. Every litre used of this eco-friendly fuel means two kilograms less of CO<sub>2</sub> being pumped into the atmosphere. For this reason, the German government had in the past supported biofuels “made in Germany” and so was also making a sustainable contribution towards protecting the climate. Those times, however, would appear to be over: tax increases are pushing up prices and taking away the market opportunities for this environmentally friendly fuel.

**ecoMotion**

Biodiesel, produced by SARIA, is sold throughout Germany under the brand, ecoMotion.

The tax exemption rules were scrapped last summer. Since the beginning of this year biodiesel has been taxed at 15 cents a litre. This eco-diesel, which had in the past been considerably cheaper than normal diesel, is now more expensive than its normal counterpart. And this has had drastic results: demand for this regenerative fuel at petrol stations has dropped to almost zero. And this situation will continue to worsen: tax on this fuel is to increase each year by six cents a litre until 2012.

## Quota regulations alone are not enough

This tax increase is thwarting any attempt made so far to achieve climate targets by establishing biodiesel on the market. Mineral oil companies have, indeed, been obliged by law to sell a minimum percentage of biofuels since the beginning of 2007. However, this so-called quota regulation is, for the most part, achieved by mixing biofuels with normal diesel or petrol. At the moment, fossil diesel sold at petrol stations has had around 5 percent of biofuel added to it. And this alone is not enough to safeguard the future of the climate-friendly biodiesel.



The Government's about-turn has revealed a second shortcoming as far as production is concerned: it is a prime example of the lack of a secure environment for investments. Just like many other German biofuel producers, the REMONDIS Group relied on there being consistent political principles. SARIA, one of REMONDIS' sister companies, set up three modern ecoMotion production plants in North Rhine-Westphalia and Mecklenburg-Vorpommern with a total annual capacity of 212,000 tonnes. The overall investment amounted to 66 million euros.

**Biofuels from the company's own production facilities**

Biodiesel, manufactured by ecoMotion, is not produced at the expense of the food industry. On the contrary, the company produces this ecological fuel from fats from waste food, from waste animal fat or from plant-based oils. It is, therefore, made from residual waste that can be fed

**A total of 3,500 REMONDIS vehicles run on biodiesel. Year on year, this means a reduction in emissions of more than 70 million kilograms of CO<sub>2</sub>.**

back into the economic cycle as biodiesel. The RETH-MANN Group is an excellent example showing just how worthwhile it is to use biodiesel: a total of 3,500 company vehicles run on biodiesel. Year on year, this means a reduction in emissions of more than 70 million kilograms of CO<sub>2</sub>. There is absolutely no doubt: biodiesel makes a valuable contribution towards sustainable climate policies. It is, therefore, the responsibility of the German government and the Bundestag to ensure that this environmentally friendly fuel is not killed off by taxes that are too high.

# Nothing is wasted!

## THE BEST AVAILABLE TECHNOLOGY FOR PROFESSIONALLY RECYCLING AEROSOL CANS AND CARTRIDGES

The German Ministry for the Environment recently published its so-called IVU Directive concerning "integrated pollution prevention and control". A fact sheet on the "Best Available Technology (BAT) for waste treatment facilities" is attached to these guidelines which provides sample solutions of environmentally friendly disposal methods for all kinds of waste. The document is based on the information exchanged between the EU member states and the industry concerned in accordance with Article 16 paragraph 2 of the Council's Directive 96/61/EC concerning integrated pollution prevention and control. As part of this discussion, the best available technology was identified as well as the corresponding monitoring measures and developments within this area. Three facility units operated by REMONDIS Industrie Service in Bramsche GmbH have been named on this list as being the best available technology.

Thus, in its 600-page directive, the German Ministry for the Environment lists, for example, the technology used at the waste treatment plant in Bramsche to dry out paste-like materials using thermal distillation as being a BAT facility. REMONDIS is, therefore, also spearheading German environmental technology in the area of aerosol can and cartridge recycling. Recycling aerosol cans and cartridges poses a considerable technical challenge, as the products are potentially dangerous because of the high pressure they are under and, for the most part, their highly inflammable contents. The first step is to eliminate these dangers. These materials are, therefore, recycled using state-of-the-art facilities and complex multi-phase processes.

If large quantities of damaged aerosol cans are treated at the same time, then it is also possible for the solvents contained in the cans to be used for materials recycling.

Having unpacked, sorted and removed any contaminants and pieces of wrong waste, the aerosol cans are first broken up under vacuum. Following this, the material is heated up and dried within a nitrogen atmosphere. The propellant gases from the aerosol cans, which are captured during this

### Services

#### Disposal of

- full, partly full or empty aerosol cans containing standard retail products – also whole batches of faulty products
- lighters and refill bottles
- PU foam cartridges
- gases in other containers such as pressure cylinders, oxygen cartridges etc (discussed individually)

process, are disposed of fully either through high-temperature incineration or biofiltration. Once any residual liquids have been removed by distillation, the remaining metal fractions – normally steel or aluminium – can be separated according to type and fed back into the economic cycle. This complex procedure, therefore, not only guarantees that the maximum amount of material is recovered for materials recycling but also very importantly contributes towards protecting the environment. None of the gases, which are so harmful to the environment, are released into the atmosphere.

### Recycling process



Unpacking, sorting and removing contaminants and wrong waste



Breaking up of aerosol cans under vacuum



Heating up the material under inert conditions including subsequent drying process



High-temperature incineration or biofiltration of the propellant gases



Remaining liquids removed by distillation



Separation of steel and aluminium fractions

Hazardous waste

# Digital records soon to be obligatory

ELECTRONIC SYSTEM TO REPLACE PAPER FORMS IN GERMANY

A new era will soon be dawning for the German Waste Law: the paper forms which have up to now accompanied the disposal of hazardous waste will be a thing of the past. From 01 April 2010 onwards, the use of digital certificates will become obligatory by law. With REMONDIS' IT package - that is to be offered to customers under the name, REGISTA - the REMONDIS Group will be providing all those involved in waste disposal with a user-friendly and practical solution.

According to the German Ministry for the Environment, 2.5 million consignment notes are issued in Germany every year. This substantial figure makes it clear just how much bureaucracy is involved nowadays when handling hazardous waste. In order to change this situation, the electronic waste-records procedure (eANV) is to become part of the Waste Act: handover certificates, consignment notes and proof of disposal will, in the future, be drawn up as digital documents and electronically transferred between the parties involved.

REMONDIS' IT solution has incorporated the required electronic waste-records procedure in an easy and practical way. All of the required digital documents can be filled out quickly and take all work procedures into account in the greatest possible manner. Containing qualified electronic signatures, the data from the waste producers, transport companies and waste disposal specialists is then sent electronically to the so-called ZKS (central coordination agency). This agency, which is to be set up by the German federal states, acts as an interface between those active on the market and the authorities responsible. The new regulation will only be obligatory for disposing of hazardous waste. However, it also makes sense to use up-to-date information technology for recyclables and residual waste, too, even if this is not obligatory: our IT solution makes it

possible for all aspects of waste management to be processed via an electronic platform. This reduces the amount of time and money needed for administration tasks and guarantees efficient processes.

Our new applications solution, which also comprises the obligatory long-term archiving of the digital documents, is suitable for companies of all sizes. If it is to be used by a single workplace, then all that is required is a standard computer with access to the Internet. All information concerning the waste-records procedure can be accessed via an easy-to-use web interface where all necessary work stages can be carried out. The implementation of established communication standards guarantee the greatest level of security. REMONDIS' platform can also be easily integrated into complex IT infrastructures – as a result the end users can use the different functions available to them via the applications interface they are used to.

Many companies are already adjusting their systems to this new electronic waste-records procedure even though it does not become obligatory until 01 April 2010. The REMONDIS Group, therefore, is helping its customers to achieve this with REGISTA, a full user-friendly solution that has been integrated into the current service packages.

**REGISTA**

As 2.5 million consignment notes are issued every year, it makes sense to introduce an electronic system.

# The challenge of demographic change

## THE EFFECT OF THE CHANGING POPULATION STRUCTURE ON THE ENVIRONMENTAL SERVICE BRANCH

By 2050, the number of people living in Germany will have dropped to 69 million. Around sixteen percent fewer people, therefore, than there are today. The effect that this will have on society will not only present the job market with fundamental challenges. It also means that the waste management and environmental service branches must come up with some future-oriented solutions.



In many regions, local authorities do not have the necessary funds available to make sustainable investments.

If the number of people living in Germany drops in the future, then the amount of waste generated will also fall. At first glance, this would appear to be good news but this first impression is deceptive. For, according to the forecasts, demographic change will also lead to changes in where we live: in some regions population density will increase. In such areas, in the future, people will be living in a large number of small households. Waste management businesses, therefore, will have to collect small amounts of waste from a much larger number of places. In contrast, population will become sparse in other areas with the number of households falling. For waste management this means: the individual collection points are located far away from each other so that collection rounds will last much longer.

Longer trips in rural areas, more stops in cities: both will push up logistics costs. At the same time, waste manage-

ment companies cannot increase the time between the different collections, for residual waste and food waste bins need to be collected at least every fortnight for reasons of hygiene.

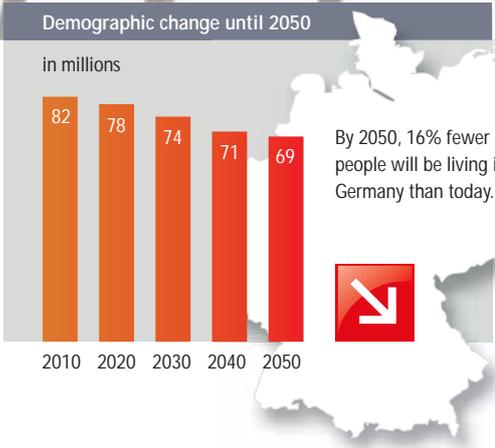
### Fixed costs remain at the same level

However, not only collection costs may rise. The predicted changes in population structure will not bring about any advantages for the facilities. On the contrary: faced with lower volumes of waste, the capacity of the treatment facilities will be much too large. Whilst less waste will be transported to the facilities, the costs for operating the facilities remain at the same level. The financial burden, therefore, of treating one tonne of waste will increase considerably.

### The municipalities' sparse funds

No matter whether it is collection or treatment – whilst the

Today, the population is falling in practically every region in Germany, the amount of waste generated is decreasing. Ludger Rethmann, Board Spokesman at REMONDIS



number of fee payers falls, costs as a whole will increase. New directions with economical structures must be found if this divide is to be overcome. In many regions, however, local authorities do not have the necessary funds available to make sustainable investments. Financially strong companies have far more opportunities open to them. They can, there-

fore, help to ease the burden on city and district councils as well as on municipal associations. The municipalities not only profit from the financial strength of the companies but also from their extensive know-how.

#### Well prepared for the future

Private sector partners provide local councils with an optimized infrastructure and can prepare their waste management systems for the future. Moreover, the private sector competition mechanisms also mean cost advantages. It is, therefore, much easier to keep rates and charges at a stable level even if conditions become more difficult as a result of demographic change. And this is just one of the reasons why the Minister of the Environment for the state of Baden-Württemberg, Tanja Gönner, recently called for "more private sector, less state involvement".

An interview with Ludger Rethmann, Board Spokesman for REMONDIS

# Too many incinerators – not enough waste

“It is no longer a question of whether there will be an overcapacity within the thermal treatment sector. The question is how big this overcapacity will be!”

Ludger Rethmann, Board Spokesman at REMONDIS

Since the TASI law came into force, new incineration plants have been put into operation in Germany and neighbouring Holland with a total capacity of approx. 4m tonnes and facilities with a further overall capacity of 1.3m tonnes are currently being built. This means, therefore, that waste incineration plants have been or are in the process of being built with an additional capacity of 5.3m tonnes. In addition to this, mono furnaces and RDF co-incineration facilities have been put into operation which have a capacity for 3m tonnes of waste. It is as good as certain that new RDF power plants will be built with a further overall capacity of 2.2m tonnes which means an additional capacity totalling 5.2m tonnes will be added to this sector. There is, however, a problem here. In the future, there will not be enough waste for all the plants – both those already established and future plants – to operate profitably. The consequences will be a dangerous fall in prices, value adjustments and insolvencies for WIPs and RDF power plants as has already been experienced by biomass-fired plants and hazardous waste incineration plants. We spoke to Ludger Rethmann, board spokesman at REMONDIS, about the situation on the incineration market.

**REMONDIS aktuell:** Mr Rethmann, is it true that there will soon be a lack of waste?

**Ludger Rethmann:** This is in fact already the case. Our facilities are not running to full capacity. We already depend on materials from abroad. Articles are also appearing in the press about other operators, such as E.ON Energy from Waste, AVR and ALBA, who are also complaining that they are unable to run some of their facilities to full capacity.

**REMONDIS aktuell:** Can you describe in concrete figures what this actually means?

**Ludger Rethmann:** The WIPs and RDF power plants, which have already been put into operation or are in the process of being built both here and in neighbouring Holland since 2005, have a total capacity of 13.5m tonnes. If you add the 16.5m tonnes of thermal incineration capacity that had already been in place before that, then total thermal capacity increases to 30m tonnes. However, in Germany we only have 24m tonnes of waste and RDF materials. In the Netherlands there is a further estimated amount of 1m tonnes of waste that is currently being taken to landfill. If biowaste were to be collected separately throughout the whole of the country, which makes good ecological sense, then the amount of waste available for these plants would fall again by a further 4 million tonnes.



**REMONDIS aktuell:** Does this mean that a number of plants will not be able to operate at full capacity in the future?

**Ludger Rethmann:** I would, in fact, go a step further. It is very likely that some plants will be forced to close down as they will not be able to run profitably. The situation for the RDF sector is dramatic. The power plants, that have already been built, and the co-incineration capacity of coal-fired power plants and cement works has meant that there is already a huge overcapacity within the RDF power plant ->

**Ludger Rethmann warns against building further thermal treatment facilities.**

“The goal of a well functioning environmental service branch is, if it makes economic sense, to recover materials wherever possible for materials recycling. Falling incineration prices, however, prevents recycling.”

sector today. And this often affects power plants that are, effectively, unable to be shut down because of the energy contracts they have concluded. It is, therefore, no longer a question of whether there will be an overcapacity within the thermal treatment sector. The question is rather how big this overcapacity will be!

**REMONDIS aktuell:** What does this mean for operators and investors?

That will certainly depend on the size and financial strength of the individual companies. Large groups such as E.ON and Vattenfall can generally iron out an overcapacity in RDF power plants and waste incineration facilities through value adjustments and special depreciation allowances. For most projects, however, it is unlikely that the costs owed to banks and plant construction companies will be able to be covered and – in the case of municipal plants built through in-house contract award systems – the costs can be expected to be passed on to fee payers. Especially if 100 percent of the investment was made by the local government.

**REMONDIS aktuell:** Wouldn't it be better to stop building new plants?

**Ludger Rethmann:** As the new facilities entering the market will create an overcapacity that will affect the market not just for a few months but for 20 to 40 years, we do indeed believe that it would be sensible not to start new construction projects to prevent the situation getting even worse. A further problem of overcapacity in the area of WIP/RDF facilities is that – unlike the classic collection business where non-profitable businesses simply disappear from the market through consolidation – incineration facilities cannot generally be simply shut down. This will result in a further fall in input prices.

**REMONDIS aktuell:** The branch is also expecting the volume of waste to fall. Will material flows simply dry up at some stage?

**Ludger Rethmann:** Whatever happens, the branch will always have to constantly adjust to the volumes of waste actually available. Building facilities in an uncontrolled manner based on out-of-date market data is counterproductive. Demographic changes and the effect of globalization must be taken into account. Here, in Germany, the size of the population is shrinking, businesses are moving to Eastern Europe and Asia, the amount of waste being generated is falling. With this in mind, it would only make sense to invest in new facilities if long-term input contracts had been concluded first. By that, I mean primary contracts that are valid for between 10 and 20 years with no intermediaries. However, no-one can guarantee such security faced with the increasing overcapacity and sinking volumes of waste. A further problem caused by the overcapacity is the effect on the actual recycling rates. The goal of a well functioning environmental service branch is, if it makes economic sense, to recover materials wherever possible for materials recycling. Falling incineration prices, however, prevents recycling.

**REMONDIS aktuell:** Have projects actually been turned down?

**Ludger Rethmann:** Yes, plans for incineration lines to be extended in existing facilities have been shelved and other projects have been abandoned before the first sod had even been cut. An example of this is the planned WIP in Halle with a capacity of 80,000t a year, which is no longer to be built as a neighbouring district already has a high level of unused capacity. Or the planned RDF power plant at the Norddeutsche Affinerie in Hamburg with a throughput of 750,000t a year. Here, it was not possible to conclude long-term supply contracts to secure the necessary volume of fuels. Another sign that the market is changing is the announcement made

New facilities will create an overcapacity that will affect the market for 20 to 40 years. New construction projects should, therefore, be shelved.



by the Japanese plant construction company, Ebara, that it is intending to withdraw from the market. Once it has completed its projects in Frankfurt-Höchst and a plant in Bazenhaid/Switzerland, the Group will withdraw from the plant construction market here in Europe. Apparently, 80 million euros of operating reserves have already been set up with this in mind.

**REMONDIS aktuell:** And how is REMONDIS reacting to this development?

**Ludger Rethmann:** There is a good reason why REMONDIS has not participated in an RDF power plant. The processing of the materials and the RDF power plants are more expensive than WIPs. Whilst money is already being paid for substitute fuels in Eastern Europe, the situation is the complete opposite in Germany. For us, therefore, this development primarily means that we must continue to follow the path we have been taking over the last three years since we purchased RWE Umwelt AG. By this I mean the merging together of facilities, rationalization measures at every facility as well as an increase in productivity in each and every division and with every vehicle. Moreover, we must look more carefully at the idea of importing waste from neighbouring countries.

**REMONDIS aktuell:** Such as with the municipal waste from Italy, some of which is being incinerated in Bremerhaven?

**Ludger Rethmann:** The waste from the Campania region has shown just how paradoxical the situation is. On the one

hand, there are still regions within the European Union that are unable to dispose of their waste in an environmentally friendly manner because they do not have the right facilities. On the other hand, the public are overly sceptical when this waste is transported to places where it can be disposed of thanks to the high-tech facilities available. Nowadays, we live in a society where it is perfectly normal to drink wine from Italy and eat apples from New Zealand and so these feelings of resentment towards waste being transported are incomprehensible particularly as in this case the waste is harmless municipal waste.

**REMONDIS aktuell:** That means you are calling for borders to be opened up even more to allow waste to be imported?

**Ludger Rethmann:** Using the European Waste Law as a basis, it must certainly be made easier to transport waste to facilities that can dispose of it in the best possible and most environmentally friendly way. This, by the way, would not only mean that facilities in Germany and the EU could then be used to full capacity but would also make an important contribution towards preventing climate change. For thermal recycling generates energy that is practically CO<sub>2</sub>-neutral and at the same time reduces emissions of landfill gases that harm the environment. And if the waste for this is transported using the eco-friendly train, then that is even better.

**REMONDIS aktuell:** Mr Rethmann, thank you for the interview.

Modern WIPs contribute towards preventing climate change. Germany's capacity extends beyond the German border.

Wastewater treatment

# REPHOS® for flora and fauna

NEW PATENT FOR RECOVERING PHOSPHORUS

Phosphorus is considered to be one of the most important plant nutrients. Global supplies, however, are limited – experts believe that natural supplies of phosphorus will have been used up within the next 60 years. New ways must be found, therefore, to create a material life cycle for this important element. REMONDIS Aqua has developed a future-oriented process demonstrating how phosphorus can be recovered from industrial production wastewater.

Phosphorus is an important raw material for plant fertilizer.

Phosphorus has both its good and its bad side: on the one hand, farmers use fertilizers containing phosphorus on their fields to speed up plant growth and increase yields. On the other hand, phosphorus can end up in rivers and lakes if too much fertilizer is used. This material must, therefore, be removed from municipal and industrial wastewater. The solution would appear to be obvious: sewage sludge should be used as fertilizer. However, it is not quite that simple as there is generally only a low concentration of phosphorus in the sludge and involves unfavourable chemical bonds.

#### The early bird catches the worm

For many years now, scientists have been looking at ways

to recover phosphorus. REMONDIS, too, carried out its first experiments in this field over ten years ago with the aim, at that time, to recover nitrogen. It has now had a sweeping success with its REPHOS® process, which REMONDIS has developed through concrete industrial applications at the dairy factory owned by Küstenland Milchunion.

#### The problem

Humana's subsidiary, Küstenland Milchunion, is one of the most modern and highest performing cheese factories in Germany. At its Altentreptow site in the state of Mecklenburg-Vorpommern, this large-scale dairy factory produces a range of dairy products. The production processes result in

**Reterra®**  
Boden gut machen!

the accumulation of wastewater containing organic matter and high concentrations of phosphorus. Standard biological methods, however, do not fully succeed in separating the phosphorus from the water.

Chemical precipitation with iron is not an option as this would result in large volumes of sewage sludge, the need for huge amounts of chemicals and high operating costs. Moreover, the metal binds the nutrient so tightly that, were it to be used in a fertilizer on fields, it would not be released into the soil. On the contrary, the iron bond would actually remove more phosphorus from the soil. Küstenland Milchunion needed a novel solution and is commissioned REMONDIS with the task of finding one.

#### The solution

By carrying out intensive research work, REMONDIS developed a model that satisfied both ecological and economical aspects. Its core is REPHOS<sup>®</sup>, a process that uses an optimized method of MAP precipitation (magnesium, ammonium, phosphate). By adding salts, a compound of magnesium with ammonium and phosphate is released from the sewage sludge in crystal form that contains high concentrations of phosphorus.

Thanks to the special features of this process, the substance does not need to be dehydrated. And, above all, the crystals have the best possible shape – tiny white grains about the size of coarse sand. This special structure is ideal for being used in fertilizers. Furthermore, the REPHOS<sup>®</sup> product dissolves in water very slowly. The phosphorus, therefore, is gradually released into the soil and lasts for longer.

#### On-site application

REMONDIS has integrated this process into an overall multi-phase concept for Küstenland Milchunion. In the Altentreptow cheese factory, the organic matter is first removed from the wastewater, before the water undergoes the REPHOS<sup>®</sup> procedure, and transformed into biogas. To make this possible, REMONDIS built a combined heat and power plant on the factory grounds and the electricity generated from this is fed into E.ON's grid. The electricity generates annual revenues amounting to half a million euros. Once the wastewater has undergone the REPHOS<sup>®</sup> procedure, it is treated again - with all values being strictly adhered to so that it can follow its natural course and join the river Tollense.

#### Efficiency and goals hand in hand

This well thought-out combination of generating energy and recovering phosphorus means that these facilities are run in an extremely economical manner. Treatment costs are reduced by around 40 percent compared to the usual biological methods. Moreover, less sludge is produced and considerably fewer chemicals are needed than for conventional methods. Sales revenue from the REPHOS<sup>®</sup> products will soon be added to this equation. For, in Germany alone, around 280,000 tonnes of the mineral is needed for fertilizer production.



REMONDIS has successfully applied for a patent for this process having drawn up a detailed description of its special technological features. It can now be used in all industrial areas which have a high concentration of phosphorus in their wastewater, for example in facilities producing starch or food oil. The method is to be further developed so that it can also be used for wastewater with small amounts of phosphorus. REPHOS<sup>®</sup> has shown that many different kinds of innovations are possible in the water resources sector. And, in the future, the decisive factors will continue to be achieving innovation, closed cycles and excellent operating efficiency.

The final product: white crystals, with the compound magnesium with ammonium and phosphate, contain high concentrations of phosphorus.

Private drinking water supply

# Everything flowing smoothly in North Bavaria

REMONDIS TAKES OVER THE OPERATIONS SUPPLYING DRINKING WATER IN ADELSDORF, NORTH BAVARIA

Water is life! It is not only a foodstuff worthy of our protection but is also used as a means of transport, for fire control, irrigation and many other tasks. Supplying drinking water to the general public has in the past always been a task carried out exclusively by local councils. However, as people become more and more aware of quality and costs, local councils are increasingly looking for alternative suggestions from the private sector that can provide lower priced services using state-of-the-art technology and provide their citizens with the best possible water supply service.

## Facts & Figures

### Water supply in Adelsdorf, North Bavaria

- inhabitants: 7,626
- household connections: 2,100
- length of supply pipes: 86 km
- volume of water handled/year: approx. 700,000m<sup>3</sup>
- consumption of the district: approx. 400,000m<sup>3</sup>
- amount delivered to Röttenbach/Hernhofen water board: approx. 290,000m<sup>3</sup>

council. Approx. 700,000m<sup>3</sup> of water is handled every year. The drinking water network in Adelsdorf is divided up into two supply zones. In the first supply zone, the processed water from the waterworks is fed into the network or pumped into the Aisch high-storage tank. In the second supply zone, the drinking water is pumped directly from the waterworks via a pump station to other parts of the district or into high-storage tanks that can hold 1,000m<sup>3</sup> and 2,000m<sup>3</sup>.

And it is precisely for this reason that the North Bavarian district of Adelsdorf commissioned REMONDIS Aqua GmbH with the task of operating, maintaining and repairing its water supply facilities – tasks it has been carrying out now since the beginning of the year. The network comprises 6 wells, water processing facilities at the local waterworks, the pipe network as well as the state-of-the-art instrumentation and control systems. Furthermore, the neighbouring Röttenbach/Hernhofen water board is supplied with top quality drinking water.

In the contract tender procedure, REMONDIS beat all other competitors thanks to the economical solution it put forward. The Adelsdorf district council is making use of the advantages of working in partnership with REMONDIS, which is making its extensive know-how available to guarantee that the complex supply infrastructure is operated both safely and reliably for the people living in the area. According to the calculations drawn up by the finance officer and head of administration in Adelsdorf, Wolfgang Mößlein, costs have been reduced by 10% thanks to REMONDIS. So not just water but everything is running smoothly in Adelsdorf.

Setting a precedent: Adelsdorf is using the private sector to supply its drinking water.

REMONDIS is working in this field for the first time in this region and has the full confidence of the Adelsdorf district



# Energy from wastewater

## FACILITY IN SPAIN PUT SUCCESSFULLY INTO OPERATION

DEPROVESA WILD S.A. is a company belonging to WILD Eppelheim near Heidelberg, the largest privately run producer of natural ingredients for the food and drinks industry worldwide. Its plant in the Spanish town of Carcaixent – in the orange-growing region of Valencia – primarily produces natural extracts. As the sustainable conservation of resources is an important part of WILD's company philosophy, the increase in the volumes of material it had to process meant that a new concept was required for the treatment of its process and wastewater.



REMONDIS Aqua drew up a plant and operations concept for this, with the main element being the anaerobic treatment of the wastewater in a UASB reactor (upflow anaerobic sludge blanket). During this process, special bacteria are used to transform the organic components in the wastewater into biogas under exclusion of air. Once it has undergone a further processing stage, the biogas is fed straight into the production process as a source of energy to generate steam and so substitutes natural gas. The wastewater is, therefore, used to generate eco-friendly energy. Moreover, the anaerobic technology minimizes both the amount of sludge that needs to be disposed of and electricity requirements compared to conventional

aerobic biological processes. A contracting agreement was signed, in which REMONDIS Aqua has been commissioned to build and operate the facilities for 15 years. As a result, DEPROVESA WILD is not burdened with any risks connected to the wastewater treatment and can make long-term calculations with costs that can be clearly planned.

REMONDIS Aqua is the leading German provider within the field of industrial contracting work and has already implemented other operating models with companies such as Lorenz Snack-World, the Humana Group, MAN Nutzfahrzeuge, BASF Coatings and Pilkington.

Many valuable substances can also be found in wastewater.



“The high performance of this facility proves once again that wastewater from the food industry is predestined for anaerobic technology.”

Dr Lars Meierling, a member of the management at REMONDIS Aqua

Bulgaria: international public private partnership

# Into the future with a private partner

## BULGARIAN CITY OF BANSKO FOUNDS A PPP WITH REMONDIS AQUA

Bulgaria has also recognized the fact that it is possible to profit from economic and operative advantages if public and private businesses work together. The well-known holiday and ski resort, Bansko, has turned to REMONDIS Aqua GmbH & Co. KG from Germany for support with its wastewater treatment services and together they have set up a public private partnership company (PPP): REMONDIS Aqua Bansko.

“The foundation of this PPP company means REMONDIS is entering the Bulgarian wastewater treatment sector for the first time. The project in Bansko will act as a model for other municipalities.”

Christian Krauser, head of international sales,  
REMONDIS Aqua GmbH & Co. KG

REMONDIS Aqua holds the majority share (70 percent) in the joint company with the municipality owning the remaining 30 percent. This means that REMONDIS Aqua has introduced its successful PPP model onto the Bulgarian market and is continuing to expand its activities in the wastewater treatment sector in Eastern Europe.

Just under a year ago, Bansko City Council decided to look for a private partner to help it carry out the urgently needed investments in its wastewater treatment sector as well as to build a sewage treatment plant. REMONDIS Aqua was able to convince them of the quality of its services. The contracts were signed on 23<sup>rd</sup> August 2007. Christian Krauser from REMONDIS Aqua, commented, “The foundation of this PPP company means REMONDIS is entering the Bulgarian wastewater treatment sector for the first time. The project

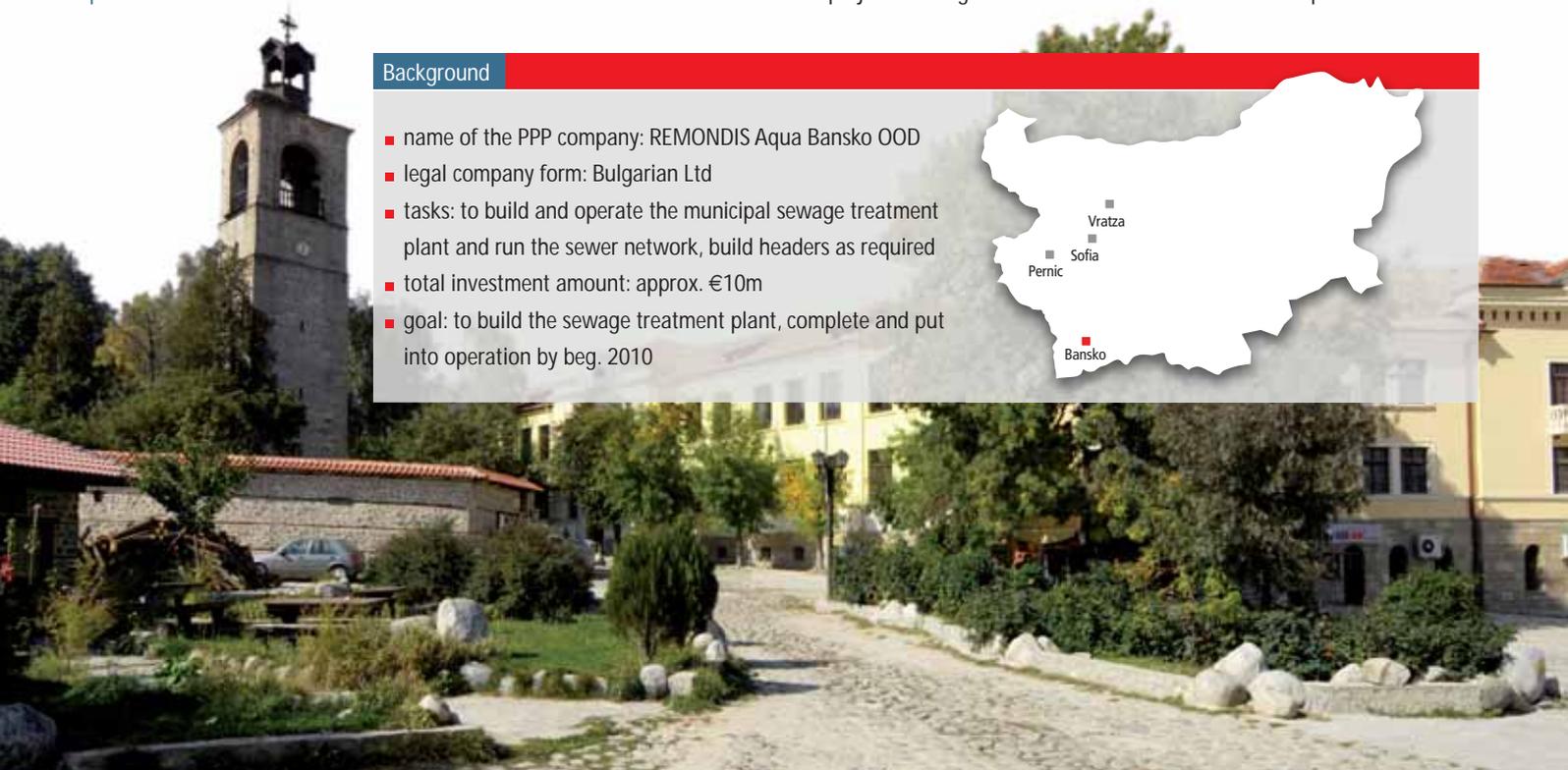
in Bansko will act as a model for other municipalities. We are expecting this to lead to further PPP companies being founded in Bulgaria.”

Bansko is well known as a health resort as well as for its 18<sup>th</sup> and 19<sup>th</sup> century buildings and old churches with their magnificent murals. In winter, the nearby ski resort is attracting more and more tourists to the region. This is having an effect on both water supply and wastewater treatment. During the peak season, wastewater from over 50,000 people needs to be treated. In order to ensure that the tourist business, which is so important for the city, is able to continue to expand, the council has now chosen the successful PPP model. The idea of close cooperation work between municipal and private sector businesses is growing in many towns across Europe as it means public services for citizens and businesses can be provided in a reliable and cost-optimized manner. REMONDIS Aqua Bansko will be investing more than ten million euros in wastewater treatment over the next few years. Thanks to this PPP, the City of Bansko will now be able to profit from the experience and resources of the REMONDIS Group, one of the world’s leading water and environmental service companies.

Bansko attracts up to 50,000 tourists in the peak season.

### Background

- name of the PPP company: REMONDIS Aqua Bansko OOD
- legal company form: Bulgarian Ltd
- tasks: to build and operate the municipal sewage treatment plant and run the sewer network, build headers as required
- total investment amount: approx. €10m
- goal: to build the sewage treatment plant, complete and put into operation by beg. 2010



# Turkey – water for Sivas

## REMONDIS SISTEM YAPI WINS NEW WATER SUPPLY CONTRACT

REMONDIS SISTEM YAPI Çevre Teknolojileri A.S. is continuing to extend its activities within the water and environmental service sector in Turkey. This REMONDIS subsidiary, which was established in 2006, has been awarded a new contract to supply the central Anatolian city of Sivas with drinking water and so has taken a further important step towards building confidence and expanding on the Turkish water supply and wastewater treatment sector.



REMONDIS SISTEM YAPI is a source of know-how for the water supply and wastewater treatment sector as well as for the environmental service branch in Turkey.

REMONDIS SISTEM YAPI already operates seven sewage treatment plants. The water processing facilities in the City of Sivas is the eighth project of its kind. Having taken over the operation of this facility, REMONDIS SISTEM YAPI is now responsible for processing water for a total of 4,108,499 inhabitants. The company's medium-term goal is to extend this number to 6 million people. In order to achieve its goal, REMONDIS' Turkish water specialists are relying, on the one hand, on their great experience of using state-of-the-art technology to process water in an eco-friendly way and, on the other hand, on ensuring that their services are of

“REMONDIS is an innovative service provider for the Turkish water and environmental service branch. This is the reason why those responsible on the Sivas city council chose REMONDIS.” Solen Arkun, managing director of REMONDIS SISTEM YAPI

realized in 2007 and has a throughput capacity of around 135,000m<sup>3</sup> a day. Once the facility has been completed, it shall have a total capacity of 270,000m<sup>3</sup> a day and will, therefore, be able to cover the needs of 440,000 people. The plant sources its fresh water from the '4 Eylül' dam which is located 15km away from the city. The facility comprises an aeration cascade, a mixer, chemical treatment facilities with FeCl<sub>3</sub> and polyelectrolyte dosing systems, settling tanks, rapid sand filters, pure water storage containers, a pump station and equipment to dewater sludge. REMONDIS SISTEM YAPI operates the facilities with a total of 21 employees and, besides operating the plant, is also responsible for maintenance and repair work, material supplies, the fleet of vehicles and the technical equipment.



a consistently high quality and cost-efficient. These were the deciding factors, too, for the Sivas city council when it awarded it the contract. The City of Sivas is located in central Anatolia in Turkey and has around 250,000 inhabitants – and this number is growing. The first extension phase of the city's drinking water processing plant was

In 2009, a further tender is being put out by the city to cover the next four years of operating the facilities, and the council is confident that it will be able to continue its successful work with REMONDIS. Those working on the council have already praised the excellent performance of the Turkish branch several times and expressed the wish that REMONDIS' services be used in the future on a long-term basis.



"Dual systems" in Germany

# A new service provider for 25 million citizens

THE BRANCH IS MASTERING THE CHALLENGE OF SALES PACKAGING



On 1<sup>st</sup> January 2008 sales packaging recycling in Germany changed considerably. At the beginning of the year, new waste management specialists took over responsibility for light packaging and waste glass in 184 towns and districts. The private sector has shown once again just how strong its creative power and organizational skills are.

At the beginning of 2008, the private water and environmental service branch put on a masterly logistics performance to ensure all changes went smoothly.

The change affected almost a third of the whole of the German population. A large number of old containers had to be exchanged for new ones. Furthermore, the routes taken by the collection vehicles had to be optimized or recalculated. And all of this had to happen in a very short space of time, as the "dual system" collection had to continue uninterrupted. Careful quality management and intensive preparation work both meant that these huge tasks were carried out in an exemplary manner. The private contractors of the Duales System Deutschland GmbH guarantee the economical collection and efficient sorting of recyclable waste. The advantage

for consumers: they profit from cost advantages for the commitment of the private sector to this area has made it possible for the Packaging Ordinance to be implemented at low cost. This helps to keep the price of products down.

The changes carried out to the system resulted in REMONDIS being awarded further contractual areas. In the state of North Rhine-Westphalia alone, the company now serves 6.3 million inhabitants. The resulting 35 percent market share underlines its undisputed position of market leader. Private service providers are also engaged in inten-



sive competition with the “Grüner Punkt” (Green Point) – which had previously held a monopolistic position on the market – in other areas besides the operative implementation of the system: more and more new “dual systems” are taking over the obligations of producers and distributors to take back their packaging. One of these providers is EKO-PUNKT, a company belonging to REMONDIS and which has now set up a nationwide organization. Whilst the German “dual system” organizes the collection and sorting of sales packaging, EKO-PUNKT goes beyond this and also takes over the practical processing of the materials. This means a complete intermediary stage is not needed leading to a clear reduction in expenses. The corresponding cost advantages are linked to an increase in the strength of the company’s performance. Being a REMONDIS subsidiary,

**“The increasing challenges of environmental protection and recycling can only be overcome if – in the medium and long-term – the private water and environmental service branch further increases its commitment to this area.”**

Dr Stephan Harmening, principal managing director of the BDE

EKO-PUNKT has access to an exemplary logistics network as well as to more than 100 sorting and processing facilities. The company can, therefore, offer a complete chain of services – collection, sorting, recycling and marketing. And by doing so, these private material-flow management professionals are contributing towards establishing economical and sustainable material life cycles.

**BDE**

Germany: TSR

# Raw materials for the global metal industry

NEW MEGA-SHREDDER IN BRANDENBURG CLOSSES SUPPLY GAP





“Thanks to its new mega-shredder, TSR has created competitive advantages for the European steel industry by achieving concrete cost savings along the whole of the recycling chain.” Anton van Genuchten, managing director of TSR Recycling GmbH & Co. KG

Faced with rising global prices for raw materials, the metal industry's need for high quality secondary raw materials from scrap metals is growing. The TSR Group provides the global steel industry with over 10 million tonnes of this material. With its new mega-shredder in Brandenburg, REMONDIS has made sure that it will be able to continue to supply both the regional and international steel industry with materials in the future, too. This state-of-the-art facility was put into operation at Quenzsee in the state of Brandenburg at the end of 2007 and is operated according to a semi-wet process. It has been fully soundproofed and fulfils the highest environmental standards.

From March 2007, the various companies commissioned by TSR – from the fields of mechanical and civil engineering, hall construction work, electrics, landscaping and canal construction work – carried out the building work on the new 6,000 PS facility on a total surface area covering approx. 65,000m<sup>2</sup> on the banks of the Quenzsee. The new facility primarily processes material collected from households as well as production waste and scrap machinery sent by industrial businesses based in the east of Germany as well as parts of north Germany. The metals are shredded according to different customer requirements and then separated strictly according to type and fed back into the production cycle. Following the shredding process, the sorted material is loaded directly into wagons via discharging belts and delivered to the B.E.S. steelworks. The steel produced from secondary raw materials is, for example, used around the world as structural steel.

The shredder in Brandenburg is fully covered so that the noise levels in the surrounding area are kept at very low levels. During operations, the metal being processed is kept moist whilst it is being cut up. Steam jets ensure that metal dust and any other particles are unable to escape into the atmosphere. Two diggers, a wheel loader and a large crawler crane load the material into the shredder, place the processed batches on the storage areas or unload the ships at the new quay.

#### Facts & Figures

##### TSR mega-shredder

- location: Quenzsee, Brandenburg
- approved capacity: 640,000 tonnes shredder throughput
- shredder power: 6,000 PS
- workforce: 55



THE METAL COMPANY

Transportation by ship is possible via the connection to the Elbe-Havel Canal and then to the European canal network. A quay wall, almost 300 metres in length, was built to make this possible. To compensate for this construction work, an area currently covered in concrete in the “Breitlingsee” nature reserve will be returned to its natural form and so handed back to nature. Other arguments in favour of this recycling site is its proximity to Berlin and the neighbouring Brandenburg-based Elektrostahlwerke GmbH. TSR now has, therefore, the largest shredder of its kind in the new German states. However, the favourable conditions offered to the companies purchasing the recycled steel are not only a result of the size of the shredder. The intelligent material-flow management resulting from the online processing of the shredder's light and heavy metal fractions optimizes the metal treatment processes to the benefit of both the customers and the environment.

The soundproofing measures fulfil the highest technical standards.

Environmental services

# Liberalizing the transport of waste in the EU

## COURT RULING MEANS GREATER COMPETITION

In its ruling of 8th November 2007, the European Court of Justice (ECJ) opened the way for waste fractions to be bought and sold. According to experts, cross-border water and environmental services will increase as a result within the EU. This will not only mean that capacity utilization in existing facilities can be optimized but will especially benefit the environmental service branch and help to prevent climate change.

The transport of waste should be liberalized wherever goods are transported over borders.

The reason behind this ECJ court case was a matter that had occurred in the Austrian city of Frohnleiten. The operators of a landfill there had refused to pay a fee for depositing hazardous waste from Italy. They argued that the legal criteria for the country's fee waiver scheme had in principle been fulfilled – even if the waste came from a remediation project in a neighbouring country.

In Austria, a fee must be paid for depositing waste in landfills. Under certain conditions, however, this fee need not be paid. It must, however, always be paid for waste coming from abroad. At the case's final hearing, the ECJ ruled that the laws in Austria violated current European law. The claimant need not, therefore, pay for depositing the waste in the landfill. In its statement, the Court justified its ruling saying that the fee restricted competition within the European waste management branch and was, therefore, not permissible.

This is a decision that will have an effect on the future waste policies of all European member states. The ruling effectively stops them from preventing the liberalization of waste transportation and treatment. A Europe-wide version of Germany's TASI law (Technical Guidelines for the treatment and disposal of municipal waste) is, therefore, within reach: the European TASI. The German Waste Ordinance could serve as a model for all European countries. And this would make sense.

High-tech from Japan, jeans from China and apples from New Zealand. The market is global. But this would only appear to be true for products. When it comes to the disposal and recycling of waste, free trade still ends at national borders. And this has led to the current situation: some countries have future-oriented waste treatment facilities that are not being run to full capacity, others continue to deposit waste in landfills as they did 20 years ago. Valuable materials are wasted unnecessarily. An EU-wide landfill ban for municipal waste would mean a 110 million tonne reduction in CO<sub>2</sub> emissions. The progress made as a result of the TASI being introduced into Germany already covers ten percent of all German obligations laid down in the Kyoto Protocol.

**“An EU-wide landfill ban for municipal waste would mean a 110 million tonne reduction in CO<sub>2</sub> emissions.”**

# REMONDIS continues to grow in Baden Württemberg

## RANGE OF SERVICES EXTENDED THROUGH TAKEOVER OF MEIER ENTSORGUNG GMBH

REMONDIS AG & Co. KG has signed a contract to purchase all shares in Meier Entsorgung GmbH in Bad Krozingen. Under the terms of the agreement, REMONDIS not only takes over Meier Entsorgung GmbH but also all shares in its subsidiaries and associate companies. Thanks to this takeover, REMONDIS is extending its range of customer-oriented services in south-west Germany and further expanding the field of regenerative energy production thus helping to prevent climate change.

Meier Entsorgung GmbH, a company founded by Werner Meier in 1962, is an environmental service business with eight locations in the state of Baden Württemberg. In 2007, a turnover of just under 50 million euros was generated by the company together with its 260 employees and 100 special vehicles. The activities of the Meier Group cover all service areas: from the logistical collection of residual and recyclable waste, to its treatment and processing to generating energy in anaerobic digestion facilities.

Over the years, Meier Entsorgung GmbH has become one of the largest companies within its branch in Baden Württemberg. Nowadays, its services range from sorting, collecting hazardous waste and providing temporary storage facilities to generating biogas via an anaerobic digestion facility for biowaste. Meier, therefore, complements REMONDIS perfectly in south-west Germany. By taking over the Meier group, REMONDIS is continuing to consistently extend its logistics locations for customer-oriented services. The modern treatment and processing facilities are perfect for the company group's strategy which looks to achieve resource conservation and climate protection by creating intelligent material life cycles. Egbert Tölle, a board member of REMONDIS AG & Co. KG commented, "What is particularly attractive about this takeover is that we will be able to use the full capacity of the existing company-owned sorting and processing facilities with recyclables and further extend the area of regenerative

**"Thanks to the takeover of the Meier Group, REMONDIS has extended its logistics locations for local customer-oriented services and further invested in conserving resources and preventing climate change by creating intelligent material life cycles."** Jürgen Quaas, managing director at REMONDIS GmbH & Co. KG

energy production using the existing material flows in the anaerobic digestion facility!" Biogas-und Kompostbetrieb Freiburg GmbH (BKF) was founded in 1998 as a Meier Entsorgung GmbH subsidiary. All biowaste from the district of Breisgau-Hochschwarzwald is recycled here. The BKF produces compost as well as a third of the total eco-electricity generated in Freiburg. The company, which will now be integrated into the REMONDIS Group, makes an important contribution towards generating climate-friendly, CO<sub>2</sub>-neutral energy in the region. Meier Entsorgung GmbH also helps to conserve resources in the field of scrap metal and aluminium recycling through its subsidiary, MSW. Around 95% of energy requirements can be saved if new products are manufactured using secondary aluminium. REMONDIS has, therefore, further extended its market presence in Baden Württemberg by taking over this certified specialist business and its subsidiaries.

REMONDIS is taking over all subsidiaries and associate companies as well as their facilities and vehicles.



# Preventing climate change through recycling

STUDY CONFIRMS CO<sub>2</sub>-SAVINGS POTENTIAL THROUGH ACTIVE SUPPORT OF ENVIRONMENTAL SERVICE BRANCH

Being the largest water and environmental service company in Germany, REMONDIS makes a considerable contribution with its facilities and services towards the achievement of the European Union's ambitious climate targets. The massive investments carried out over the last few years in state-of-the-art technology and know-how demonstrate the high priority that REMONDIS and the 750 private companies from the branch in Germany put on the subject of the environment and resource conservation.

A total of up to 400 million tonnes of CO<sub>2</sub> could be saved if a Europe-wide recycling rate of 65% could be achieved as is already the case in Germany.

Biomass-fired power plants such as the one in Lünen contribute greatly towards lowering CO<sub>2</sub> emissions.

More than 20 billion euros have been invested in the development and construction of new sorting, composting, emission filter, waste incineration and biomass-fired facilities since 1993. The closing-down of many landfills in Germany in 2005 alone led to a 50 million tonne reduction in CO<sub>2</sub> emissions. The drive towards creating closed material life cycles – a move primarily being carried out by private sector businesses – is, therefore, making a considerable contribution towards protecting the climate. According to a recent study published by the Hamburg Institute of Ecology and Politics, Ökopool, the current 37 percent recycling rate in the EU means that CO<sub>2</sub> emissions have been reduced by 160 million tonnes each year. Should all EU member states succeed in reaching the minimum target of 50 percent by 2020, then the environmental service activities would lead to a further reduction of 88 million tonnes of CO<sub>2</sub> per year. The actual recycling rate in Germany already lies at over 65

percent, not least thanks to the state-of-the-art technology and services provided by REMONDIS. Were this level to be achieved throughout the EU, then a further 144 million tonnes of CO<sub>2</sub> could be saved each year.

The study states that the efficient separation of recyclables such as paper, metal and plastics as well as the composting of biowaste has, by comparison, the best effect on the climate. Recycling municipal waste rather than taking it to landfill can save between 30kg and 95kg of CO<sub>2</sub> per tonne of waste. The savings achieved by thermal recycling are similar, if, in the medium-term, the electricity and process heat generated by the incineration process can be used to substitute other power plants using fossil fuels. Thermal recycling would indeed be the best way to reduce greenhouse gas emissions if the waste incineration facilities only use combined heat and power. Germany's privately run waste management companies will in the future also help to improve environmental protection in other EU countries as well as non-EU countries by increasing its exports of recycling know-how and technology.





Expansion in Germany

# More recycling in North Germany

REMONDIS TAKES OVER VOLKER BÜLOW & PARTNER GMBH

As part of its plans to extend its environmental service activities in the north of Germany, REMONDIS GmbH & Co. KG took over all shares in Volker Bülow & Partner GmbH, a company based in Schenefeld near Hamburg in the state of Schleswig-Holstein, at the beginning of the year. The company's logistics business and a handling point for scrap metal are also located in Holthusen near Schwerin. Each year, Bülow generates around 60,000 tonnes of material just from its secondary raw material activities.

This medium-sized, family-run company, which was founded in 1990, is primarily active in the area of collecting and recycling scrap metal, non-ferrous metal and waste timber as well as collecting, processing and transporting paper, commercial waste and construction waste. Further processing services for plastics, glass and data & file destruction round off the range of services provided by Volker Bülow & Partner GmbH. The company's catchment area covers the whole of north Germany all the way to Berlin. Its 25 employees collect the material in the region and then process it strictly according to type to pass it on to other processing businesses either as secondary raw materials or as a substitute fuel.

Erwin Braatz, managing director of REMONDIS GmbH, is pleased with this new addition, "This family-run business, that has been built up and managed with care and foresight by the Bülow family, fits in really well with REMONDIS' traditions and complements our activities in the field of secondary raw materials perfectly in north Germany. We would like to welcome the highly qualified and motivated Volker Bülow & Partner GmbH employees to the REMONDIS Group."



**"The new locations in Hamburg and near Schwerin complement REMONDIS perfectly in the region and will help us to be even closer to our customers. We shall continue to further expand our activities in the field of secondary raw materials in north Germany."**

Erwin Braatz, managing director of REMONDIS GmbH & Co. KG

International: Poland

# Water and environmental services – the branch of the future

DOUBLE AWARD FOR REMONDIS SP. Z O.O.

Being a collector, processor and supplier of secondary raw materials for the Polish economy, REMONDIS offers its customers, partners and employees the best possible prospects for the future. For many years now, the Pomeranian Employers' Association has organized an annual competition entitled, "Employer of the Year". The award has now been presented to REMONDIS for 2007. This award also reflects the growing significance of the environmental service branch throughout the whole of Poland.



REMONDIS supplies the Polish economy with secondary raw materials. With this award, REMONDIS is continuing its successful development.

Over the last few years, REMONDIS has won several honourable titles and awards in recognition of its excellent work. These include prizes for positive economic development as well as for "fair play". REMONDIS is the largest water and environmental service company in Poland and offers a comprehensive range of services in this area. These include, for example, the classic kerbside collection of residual and recyclable waste from the households in Bydgoszcz and the surrounding areas, i.e. from more than 250,000 inhabitants. The mixed waste is sorted there in the company's own sorting facilities and the secondary raw materials recovered from this are then delivered to nearby processing companies. Moreover, the company also collects biowaste, construction and commercial waste as well as hazardous waste and clinical waste from both public and privately run hospitals.

such as paper, card and cardboard, glass and plastics are collected and sorted and waste electrical and electronic equipment is disposed of in accordance with the country's new laws as well as EU laws. Furthermore, REMONDIS is responsible for clearing the city's roads in winter and carries out special tasks such as sprinkling the streets in the hot summer months using special sprinkler vehicles. The high standards at REMONDIS are based on effective management, the systematic training of its employees and its continuous improvement of work standards.

"Besides carrying out our services in the best possible way, priority is also given to protecting natural resources and increasing the public's awareness of environmental matters," explained Grzegorz Hoppe, managing director of REMONDIS Bydgoszcz. "This is why we support so many initiatives in this area." The company is involved in, for example, diverse workshops for children, adolescents and students, during which the participants learn about the practical aspects of separating waste. The extraordinary performance of REMONDIS Bydgoszcz has now been acknowledged with the presentation of the "Best Employer" award for the region.

REMONDIS is playing a pioneering role in the region when it comes to separating waste and, through its activities, it is advancing the development of a true environmental service branch with closed material life cycles. All secondary materials



# Melbourne extends its portfolio

## REMONDIS CONTINUING TO EXPAND IN AUSTRALIA

The idea of protecting the environment and conserving resources is growing steadily in importance on the fifth continent. REMONDIS is also helping to push forward this development process. Being an expert for environmental services and material-flow management, the company is implementing future-oriented solutions “down-under”, too. The company’s range of services will soon be even greater.

As landfill costs are still low, large volumes of waste are still being sent to landfill in Australia. However, environmental awareness is growing continuously – with a move towards more recycling and setting up closed material life cycles. REMONDIS has a total of eight locations on this continent. The first branches were set up on the East Coast and these were followed by two further branches in 2007: in Adelaide in the south of the country and in Perth on the West Coast.

A typical example of the company’s rapid growth is REMONDIS Pty. Ltd. in Melbourne: founded just fifteen years ago, the branch’s fleet of vehicles is now more than five times its original size. With its present workforce of 50 employees, it looks after its industrial and commercial customers – from small firms to large companies. Its main activities involve the collection and transport of waste.

Step by step, the branch is setting up systems to recover valuable materials and feed them back into the economic cycle. At the moment, focus is on both paper and construction waste. The tasks are currently being carried out in cooperation with different recycling businesses in the

region but the company is hoping to take over more of the tasks itself in the future. Plans are for local councils to become customers as well as businesses.

Luke Agati, managing director of REMONDIS Pty. Ltd., believes that it is important to push forward the separation of waste. For, at the moment, different fractions of waste are not yet being consistently separated at the sites where waste is generated. And this limits the processing possibilities. In Port Macquarie, REMONDIS has been operating a facility for recovering recyclable organic waste for many years now. Plans are for the high quality compost products, which have been produced from garden waste and biosolids, to be even more intensively marketed in the future. Agati would like then to push for more composting in Melbourne. For each bit of progress made within the environmental service branch helps to reduce CO<sub>2</sub> emissions from landfills. Looking at the urgent problem that Australia has with its ozone layer and rising temperatures, climate protection should play an important role by consistently expanding the range of environmental services in the country.



REMONDIS has a total of eight locations in Australia.



News in brief

## EKO-PUNKT is the second-largest “dual system”

With a market share of around 22 percent, EKO-PUNKT GmbH, a company belonging to the REMONDIS Group, has already become the second-largest “dual system”

supplier within just a short period of time of receiving its nationwide approval. The company's medium-term goal is to increase this share to up to 30%. Thanks to the fact that the “declaration of completeness” has become obligatory since 01 April in accordance with the 5th amendment to the Packaging Ordinance, EKO-PUNKT is expecting a clear increase in licensed volumes of sales packaging and less unequal treatment as a result of fewer copycat systems. Once the approval requirements of the authorities have been clarified, EKO-PUNKT is intending to offer its own branch solutions. The company has both the necessary organization and network – both of which are essential to be able to provide branch solutions. Its extensive network of facilities and marketing expertise round off its range of services.



 **EKO-PUNKT**

News in brief

## REMONDIS accompanies Minister Gabriel to China



(left to right) Gerhard Jokic, managing director REMONDIS Electrorecycling, Dr Stephan Harmening, principal managing director of the BDE, Minister for the Environment, Sigmar Gabriel, Dr Rüdiger Siechau, managing director of Stadtreinigung Hamburg

Gerhard Jokic, managing director of REMONDIS Electrorecycling, was invited by the Ministry for the Environment, Nature Conservation and Nuclear Safety, to accompany Minister Sigmar Gabriel and his delegation on their trip to China from 29<sup>th</sup> January to 1st February. The Ministry needed an expert for the Waste and Environmental Service

Workshop – “Sustainability in Waste Management and Recovery of Electronic Waste” – and approached REMONDIS via the BDE. After arriving in Guangzhou and having been welcomed by the ambassador, Dr Michael Schaefer, the consul general, Friedrich-Carl Bruns, and the deputy general director of the Environmental Agency for the province of Guangdong, Wang Zi Kui, the delegation then visited the company, “Guangzhou Tan Tech Leather Ltd.”

The next stop was the capital, Peking, where Gerhard Jokic held a talk on the technical standards of WEEE recycling. Further highlights were the conference on “Chinese-German cooperation as the driving force behind sustainable climate protection policies”, talks with Chinese politicians and Minister Gabriel as well as the final function at the German Embassy. REMONDIS was able to make important contacts for extending its business in Asia during the trip.



News in brief

## Sylt and Plön – municipalities extend their contracts with REMONDIS

The contract between the Plön district council and REMONDIS' north German branch covering the collection and transport of household waste, bulky waste, biowaste and paper has been extended beyond 2008 for a number of years. The decisive factors behind the council's decision to extend the contract were the company's good performance as well as the favourable conditions that REMONDIS has been able to offer them being a privately run water and environmental service company.

The contract with the City of Westerland on the island of Sylt has also been extended for the collection of residual and recyclable waste from public containers. Since the 90s now, REMONDIS has been responsible for keeping the island clean. The island has 22,000 inhabitants and up to 600,000 guests each year. The containers in the districts of Westerland, Sylt-Ost, Wenningstedt and Rantum will now be emptied by REMONDIS for a further five years.

Good services and cost efficiency make all the difference.

News in brief

## REMONDIS Poland awarded new contract in Pszczyna

From 1st May onwards, REMONDIS will be responsible for collecting so-called "dry" waste, i.e. recyclable packaging and other recyclable materials, as well as the municipal waste separated from this in the Upper Silesian city of Pszczyna. The Polish branch beat its competitors and was awarded the waste management contract as part of a tender procedure at the end of 2007. A referendum had

been held beforehand on the introduction of a waste tax to enable the separate collection of waste to be set up in the city. The public voted in favour allowing this environmental service to be introduced. To be able to carry out the work, REMONDIS' Sosnowiec branch is opening up a new office with 20 jobs in the city, which is situated south of Katowice (50,000 inhabitants).



Helping future generations

## Learning about environmental services at school

### SCHOOLCHILDREN LEARN ABOUT RECYCLING AND ENERGY FROM WASTE

At the Anna-Freud school in Cologne Müngersdorf, disabled and able-bodied children and adolescents are taught together. The school organized a project week from 25<sup>th</sup> to 29<sup>th</sup> February on the subjects of recycling and alternative forms of energy. Project leader, Mirko Stollenberg, asked REMONDIS for its support and the company's press spokesman, Michael J. Schneider, took up the invitation and spent a whole morning answering questions about the environmental service branch and how energy can be generated from waste.

“Many schoolchildren were already surprisingly well informed about the environmental service branch.”

Michael J. Schneider

Everyone knows how to separate waste correctly. But what happens to it after it has been collected?

It was easy to start off the subject. A pupil in a fashionable fleece pullover took a sip from her lemonade PET bottle and was surprised to learn that both the plastic bottle and her pullover were made from the same material. With this the ice was broken and the journey into the world of water and environmental services could begin. Following an introductory talk that had been adapted to suit 13 to 15 year olds there was no stopping the children. Question after question was asked: What happens to my Playstation if it's broken and can't be repaired? Where does my iPod go? How do you get the individual materials out of a broken computer? Can energy be generated from wastewater? How does it help to incinerate waste and how can it be done without polluting the environment? Michael J. Schneider patiently answered all of the questions and it wasn't long before one of the teachers put up their hand to learn more.

During the question and answer session it became clear very quickly that the children had done a lot of preparation work. Children, whose parents had emigrated to Germany, asked questions about waste recycling in their parents' native country. Hardly anyone was surprised that Germany, with REMONDIS' help, too, is playing a global pioneering role in the water and environmental service branch. All the children knew which bins their waste should be thrown into. However, they were not sure what happens to it after it has been collected nor did they realize that intelligent environmental services help to protect the climate by generating CO<sub>2</sub>-neutral energy. To underline this fact, Michael Schneider showed a short film on generating energy from biomass. By the end of the morning, the children knew that the waste in their rubbish bins at homes do not just contain rubbish but also valuable materials and energy and that if they continue to separate their waste carefully, they can make an important contribution towards protecting the environment. And some of the children used this opportunity to ask about job opportunities within the branch.

# > Impressions



Friedrich Buchholz (left), a member of the management at REMONDIS Assets & Services GmbH & Co. KG, at the International Evening held by the BDE in Berlin (photo: Hans-Peter Niessen)



▲ Minister-President of Lower Saxony, Christian Wulff, at the REMONDIS stand during the CDU party congress in Hanover.



▲ Ludger Rethmann holding a speech at the Berlin Conference on Waste and the Economy on 30.01.



(left to right) Gerhard Jokic, managing director, REMONDIS Electrorecycling, Norbert Rethmann and REMONDIS managing director, Hans Vornholt, with the president of the German Environmental Agency, Prof. Andreas Troge, during his visit to the Lippe Plant.

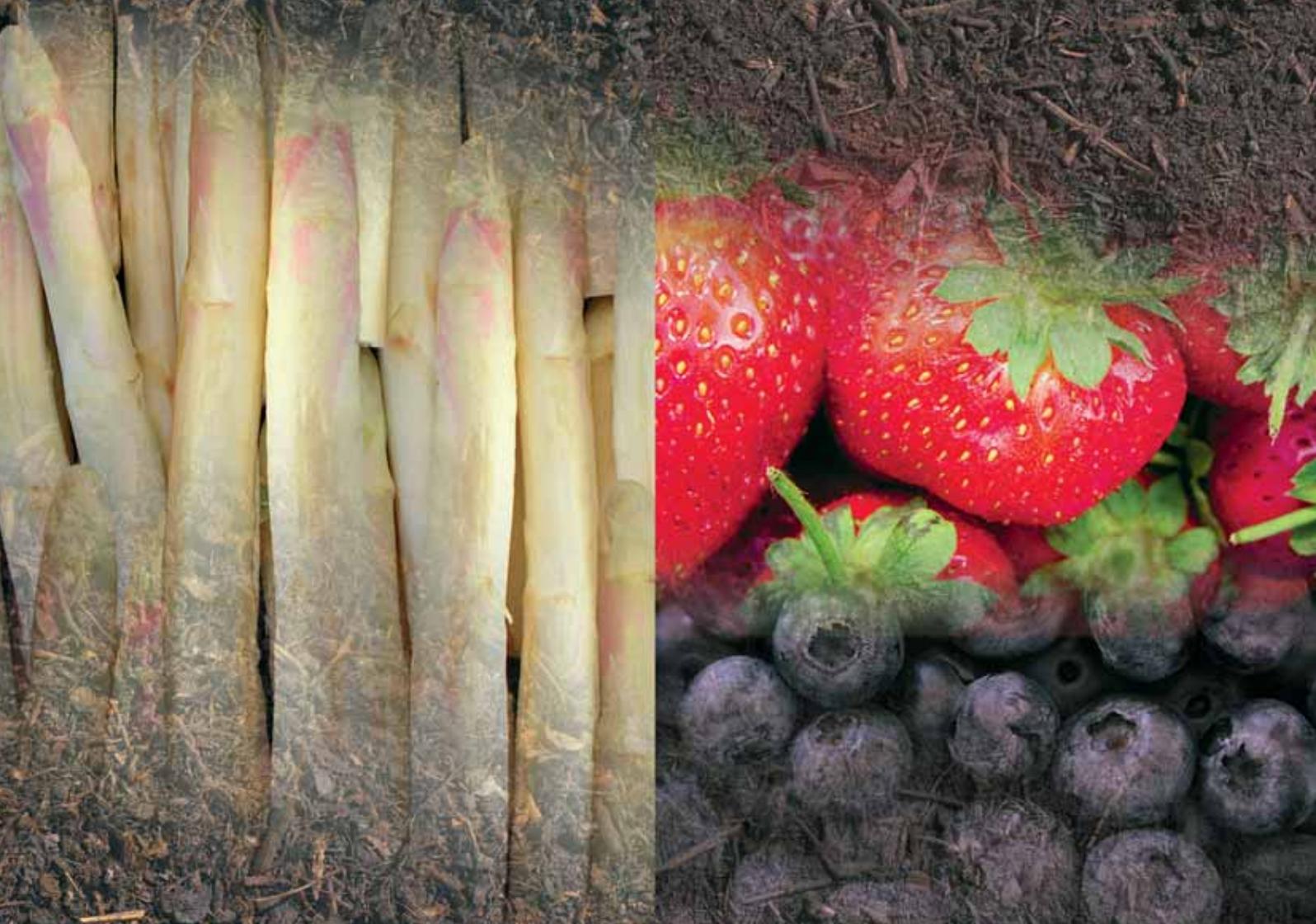


▲ REMONDIS managing director, Wolfgang Steen, hands over a donation from the REMONDIS workforce to the head of the Ronald McDonald Kinderhilfe home in Kiel, Antje Schaller.

Board Chairman of RETHMANN AG, Dr Hermann Niehues, at the Rhenus managers' conference.

Grzegorz Hoppe, managing director REMONDIS Bydgoszcz, (fourth from right) with the other prize winners at the Awards Ceremony.





# There are always good reasons behind every success

For example humerra SG Spargelgrund (asparagus compost) and BG Beerengrund (soft fruit compost) – the low-cost NPK fertilizers with the natural humus plus. For there are two reasons why humus keeps your soil in good shape: it is excellent at regulating moisture and especially good at storing heat. As a result, humerra composts ensure that asparagus and soft fruit grow even better so that you can put forward your harvest date in your diary. Many more good reasons can be found at [www.reterra.de](http://www.reterra.de)

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